

WAR ECONOMY

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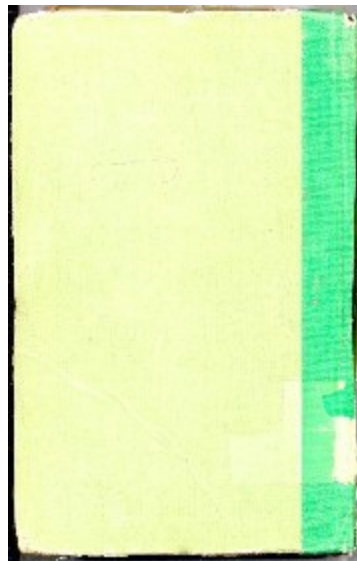
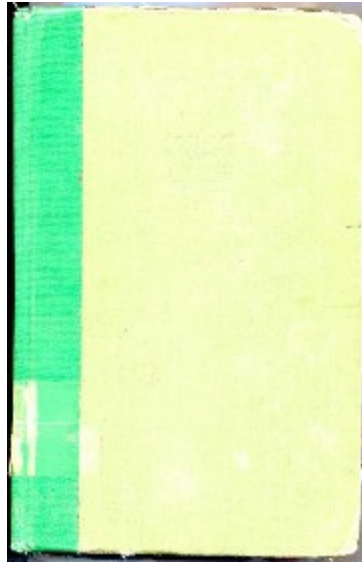
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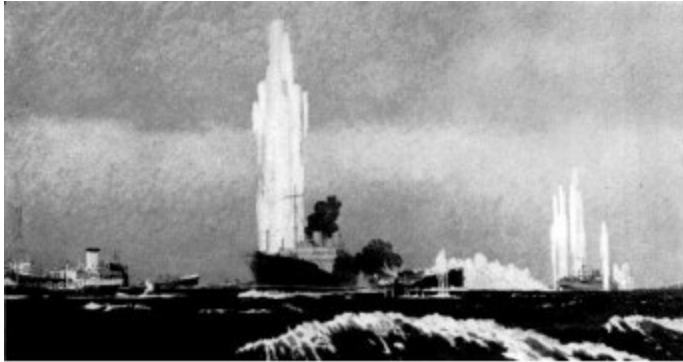
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OFFICIAL HISTORY OF NEW ZEALAND IN THE SECOND WORLD WAR 1939-45

Official History of New Zealand in the Second World War 1939-45

WAR ECONOMY

[FRONTISPIECE]



FOOD FOR BRITAIN

—from a painting by C. M. S. Beans

A 37-ship convoy under attack, November 1940. In the foreground is the *Rangitiki* carrying New Zealand produce.

The escort ship, *Jervis Bay*, hopelessly outgunned, turns and steams at full speed towards the raider, a sacrifice which saved most of the convoy.

FOOD FOR BRITAIN

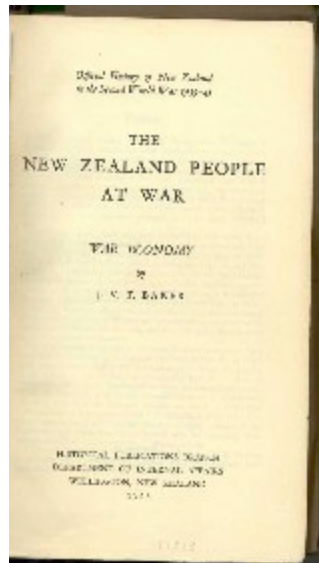
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[TITLE PAGE]



Official History of New Zealand in the Second World War 1939-45

THE NEW ZEALAND PEOPLE AT WAR

WAR ECONOMY

J. V. T. BAKER

HISTORICAL PUBLICATIONS BRANCH

DEPARTMENT OF INTERNAL AFFAIRS WELLINGTON, NEW ZEALAND

1965

WAR ECONOMY

PREFACE

Preface

I HAVE enjoyed writing this book. World War II, which is central to it, is unique in New Zealand's economic history because of a massive diversion of resources to war purposes. This in itself was a challenge. But in setting the stage, the book has had to span wider. It takes in thirty of the most momentous years in New Zealand's development from a predominantly farming community to a mixed economy. Moreover, these were the years when New Zealand emerged as a welfare state. The nature of the war effort was influenced significantly by these economic changes. It, in its turn, influenced them.

Outstanding among those who have assisted me has been Mr S. G. Elmer, whose painstaking research has extended over more than four years. The enthusiasm and thoroughness with which he has gone about this work have been a tremendous encouragement to me in completing a task which has been much more difficult, and has extended over a far longer period, than any of us anticipated. Mr Elmer has also prepared most of the statistical tables and helped me with planning the charts, chronologies and illustrations. I am grateful also to Mr L. G. Melville, who drew the charts, and to Mrs L. S. Aitken who typed the manuscript and frequently gave me valuable advice on presentation and layout. Mr Elmer, Mr Melville, and Mrs Aitken are all colleagues in the Department of Statistics.

Valuable assistance and advice on portions of the manuscript have been received from Mr H. G. Lang of the Treasury, Mr W. D. Rose, until recently on the staff of the Department of Statistics, the late Mr V. G. Boivin of the Marine Department, the Rev. A. A. Ross of Papatoetoe, Mr C. W. G. Bearman of the State Electricity Department, Mr P. W. Smallfield, until recently Director-General of Agriculture, Mr A. T. Fussell of the Railways Department, Mr R. J. Polaschek, Commissioner

of Transport, and Mr J. F. Robertson of the State Services Commission. I acknowledge also the unfailing courtesy of the Editor and staff of the **War History Branch, now the Historical Publications Branch of the Department of Internal Affairs.**

I have been fortunate to have the advice of Professor F. W. Holmes as technical editor. Through his guidance many improvements have been made.

To all these people I am most grateful; but I have not always followed their advice, and I take full responsibility for any shortcomings in this book. Except where otherwise stated, all opinions expressed are my own.

WELLINGTON AUGUST 1964

WAR ECONOMY

CHRONOLOGIES

CHRONOLOGIES

Each of the four chronologies follows the chapters to which it relates. For easy reference while reading, their top corners are marked in black.

WAR ECONOMY

ROUNDING

ROUNDING

On occasions figures are rounded off to the nearest thousand or some other convenient unit. This may result in a total disagreeing slightly with the sum of the individual items as shown.

WAR ECONOMY

CURRENCY

CURRENCY

Unless otherwise indicated, values are expressed in New Zealand pounds, which were valued at approximately £125 NZ = £100 sterling from January 1933 until August 1948, and thereafter at parity with sterling.

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WAR ECONOMY

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WAR ECONOMY

PRELUDE: THE WAR EFFORT

Prelude: The War Effort

THIS volume is concerned with the economic effects of New Zealand's participation in the Second World War.

Predominantly this is a story of effort—intensive sustained effort leading often to overstrain. The manpower record is a perfect illustration. In war, New Zealand willingly shouldered a manpower load which ultimately proved too great for her population to bear. She committed herself to supply fighting forces on two fronts, and this alone was a formidable undertaking for a small country. But she was also called upon increasingly, as a major food supplier, to expand her production. Despite mechanisation and improvements in methods, it became impossible to find sufficient men for both. In the endeavour to keep faith on the battlefield as well as on the farms and in the factories, truly Herculean tasks were performed.

This type of war effort must have been motivated as much by patriotism as by economic motives. But there are also in the pages of this volume examples of waste of materials and effort, of traders who took advantage of shortages of goods to charge exorbitant prices, of producers who took advantage of lack of competition to make excessive profits, and of workers who took advantage of shortage of manpower to make outlandish claims for rewards. In these cases one may well speculate as to the relative importance of patriotism and personal gain in motivating their efforts.

However, when all is weighed up, patriotic effort predominates over the war years. The profiteers, strikers and loafers stand out as the exceptions. Should the historian ignore them? In all honesty he should not—they are part of the story he must tell. But there is a better reason for giving them their proper place in the narrative. These are some of

the difficulties which occurred in a time of national stress. They may occur again in another time of stress. Warning of them may well result in more effective effort in the future.

Can the warning be given without conveying, incorrectly, an impression of widespread disorder? It is to be hoped it can, for New Zealand's war effort is indeed a record of achievement of which she can be justly proud.

As a history this volume is probably typical in that it contains a number of strange and apparently contradictory happenings. For example, through the most difficult war years, when the need for extra production was leading to many and varied industries being declared essential, New Zealand's most essential industry—farming—was not declared essential. Again it took a rather disastrous nine months for those who had signed the Reverse Lend-Lease Agreement ¹ on New Zealand's behalf to discover that what they had signed meant that New Zealand labour used by **United States forces in New Zealand, and rewarded often at rates which were excessive by prevailing New Zealand standards, was being paid for by New Zealand.**

All the economic events discussed in this volume are directly or indirectly connected with the war, but it is often difficult to say whether or not particular wartime events are effects of the war. For example, the need for stricter economic control was an inevitable part of the war effort, but the tendency to expand Government controls over the economy was already well advanced by 1939; the war merely gave it impetus.

The war can be regarded as having created a state of economic emergency. But this was no new thing for New Zealand. The years 1938 and 1939 had already seen financial difficulties amounting to economic emergency as a result of the falling away of overseas reserves in 1938. In fact the New Zealand economy tended to proceed from one state of economic emergency to another. No sooner was it well on the way to recovery from the depression of the early 1930s than it was faced with

the 1938 crisis in overseas reserves. The war came as the third crisis in a single decade.

In wartime the need for maximum supplies of foodstuffs to **Britain** and their orderly marketing was to require control or supervision of marketing arrangements by the Government. But New Zealand's guaranteed price arrangements for dairy products had already provided valuable experience in Government control of overseas marketing.

The financial strains which were to be imposed on the economy by the war were different only in degree from those imposed by the then Government's welfare policies, and by its extensive public works programme. It is interesting to notice that, though the war caused public works effort to be largely diverted to military construction work, the Government's welfare programme was slowed down rather than halted by the strains of wartime finance. The first steps towards a truly universal superannuation scheme were taken pre-war, but various extensions to the Social Security programme

¹ Parliamentary Paper A-7, 1942, *United States – New Zealand Mutual Aid Agreement*.

were made during the war years. The next major step, the introduction of the universal family benefit, did not take place until 1946.

The Government's policy of improving working conditions was also slowed down rather than halted during the war years, in spite of the fact that some steps in the programme clashed with the need for more intensive use of labour in the interests of the war effort. However, the decision, in the interests of the war effort, to conscript men for armed service and to direct labour into essential industries represented one of the most drastic reversals of a firmly held policy any Government has been called upon to make.

Much of the Government's handling of wartime economic problems was influenced by its pre-war experiences. The fact that the extensive burden of wartime finance was carried with virtually no overseas borrowing was no doubt attributable in no small part to the depression experiences, when drastic falls in prices for New Zealand's products increased the relative burden of overseas debt servicing until it absorbed a quarter of all export earnings.¹ Perhaps equally influential was the firm and almost unfriendly attitude which Finance Minister Walter Nash met on his visit to the **United Kingdom** in 1939 to renew an existing loan.

Probably the major economic achievement of the war was the success of the Government's stabilisation policy. This policy was assisted considerably by the decision to finance the war by taxation and internal borrowing in preference to overseas borrowing. The stabilisation programme extended well into the post-war years.

A major surprise was the persistence of full employment after the war. Entering the war with a pool of 19,000 unemployed or in subsidised employment, New Zealand had a temporary cushion against the shock of extra wartime demands for manpower for the forces and for increased production;² but these men were soon drawn into normal employment, and the last few years of the war were marked by acute labour shortage. The fact of full employment in war encouraged Governments to believe in the practicability of full employment in peace and the **New Zealand Government**, amongst others, made provision for maintenance of full employment in the post-war years. In New Zealand this provision proved to be unnecessary. Whether or not it was caused by the war, the economy had been influenced during these years towards the employment of a larger proportion of its population. Full employment, to the extent of acute labour shortage, seemed now to be built into the economy and was to remain a characteristic of it for two decades after the war finished.

¹ Based on information in *New Zealand Official Yearbook*, 1933,

p. 209.

² See also Table 1, p. 581, which gives details of unemployment, etc., up to March 1939.

WAR ECONOMY

CHAPTER 1 — PRE-WAR ECONOMY

CHAPTER 1

Pre-war Economy

Men Not Wanted

WHEN Prime Minister Michael Joseph Savage attended the 1937 Imperial Conference and declared that the causes of war were economic, New Zealand was hardly out of the throes of bitterness generated by the great economic depression of the thirties.

It is probable that memory of the depression was the strongest influence leading to the overthrow of the Coalition Government at the 1935 general election and its replacement by Savage's Labour Government.

Even in 1935, two years after the worst year of the depression, the economy was unable without Government assistance to employ more than eighty-nine out of every hundred men. Eleven in every hundred in the labour force were wholly or partly a charge on the Unemployment Fund. Against this background Savage's **Labour Party offered a forceful policy for expansion of production. It was a strongly socialistic policy containing much which was repulsive to many in a predominantly private enterprise economy; but it convincingly promised a determined attack on the sickening spectacle of continued large-scale unemployment. It swept the party into power.**

Actually, unemployment had shown quite a strong falling tendency before Labour took office, but this tendency was accelerated in the following two years. The numbers of men wholly or partly a charge on the Fund had fallen from an average of fourteen in every hundred of the labour force in 1933 to twelve in 1934 and to eleven in 1935. In December of that year the Government changed and, in the first two years of Labour administration, the fall continued, to reach nine in every hundred in 1936. ¹ By 1937 it was nearly as low as six.

This was the position when Savage went to the Imperial Conference

in 1937—rather more than 6 per cent of unemployment or assisted employment, well under half of the 1933 level, but still considerably above the New Zealand long-term average.

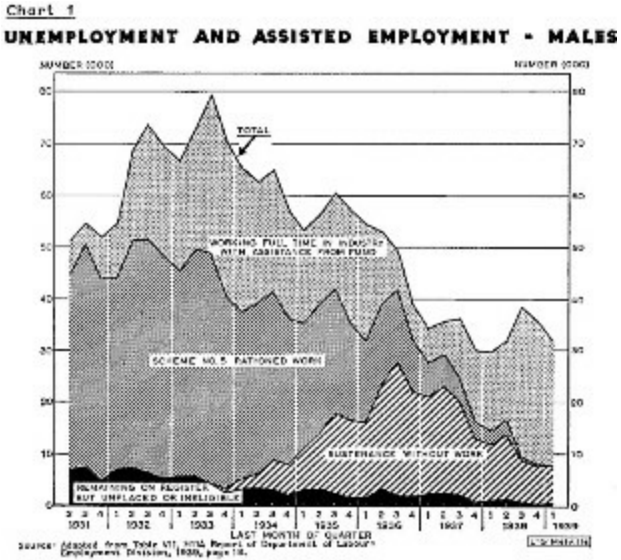
In the next two years there was a distinct danger that the tide of improvement would ebb. In 1938 the numbers who were wholly or partly a charge on the Employment Promotion Fund decreased only insignificantly. There was, however, a considerable increase in the proportion who were working full time in industry with assistance from the Fund, accompanied by a corresponding decrease in numbers on rationed work or sustenance without work.

In 1936 the new Labour Government had emphasised its more positive outlook on employment problems by passing the Employment Promotion Act 1936, to supersede the Unemployment Act 1930. Administration passed from the Unemployment Board to the Employment Division of the Department of Labour which was, in time of war, to become the **National Service Department**. Emphasis was to be on the permanent extension of employment avenues rather than on temporary relief.

In 1939 a further major step was taken with the merging of the Employment Promotion Fund into the Social Security Fund, in terms of the Social Security Act 1938. This was illustrative of the central place which Labour gave to welfare policy and the tendency to bring together as far as possible for co-ordinated attention the widening range of Government provisions for people with special needs or responsibilities.

With the 1939 change the nature of unemployment benefits also changed and the sequence in these statistics was lost. The new series of information showed comparative stability into 1940, but in September 1939 war came. Its demands for men for the armed forces were soon to alter the whole outlook on manpower. According to the **National Service Department**,² New Zealand entered the war with 19,000 men on unemployment benefit or in subsidised work.

Chart 1 shows changes in numbers receiving various types of unemployment assistance.



**Chart 1
UNEMPLOYMENT AND ASSISTED EMPLOYMENT - MALES**

¹ Answering a question about the number on unemployment relief, Minister of Labour H. T. Armstrong said in April 1936:

‘These are the latest available figures up to the 14th March last: Under Scheme Number 5, rationed relief, 15,704; on sustenance, 14,443; gold prospecting, 2,328; afforestation, 1,005; farm subsidy schemes, 3,117; Public Works - roads, aerodromes, etc. - 8,435; local bodies - subsidised employment - 2,831; small farms development, 1,257; miscellaneous, 3,537; a total of 52,657.’

***New Zealand Parliamentary Debates* (subsequently *NZPD*), Vol. 244, pp. 360–1, 16 April 1936.**

² H-11A, Report of the National Service Department, 1946, p. 74.

Employment Promotion

The keys to Labour's employment promotion policy were higher personal incomes and expenditure, together with extended public works and housing programmes. The Finance Act 1936 restored public service

salaries and the wage rates payable under awards to those prevailing before May 1931, when the first 10 per cent cut on wages had been made under depression conditions. Other wages were to follow suit. By 1937 wage rates, as measured by the Nominal Wage Rates Index, were 21 per cent above the 1935 average.

Various types of monetary provision made by the State were also increased and the range of benefits extended. Pension payments increased steadily from £3·3 million in the year ended March 1935 to £6·8 million in the year ended March 1939. In the following year, augmented by new Social Security provisions, the total of pensions and Social Security payments moved to £12·3 million and in 1940–41 was to reach £14·3 million, which was well over four times the 1935 level.

The numbers of men engaged on public works projects increased rapidly from under fourteen thousand in January 1936 to over nineteen thousand in January 1937.

It is true that, in the early stages, the Labour Government concentrated on transferring men from subsidised employment and part-time employment to full-time public works jobs. For example, highways and road works being carried on at the instigation of the Unemployment Board were transferred to the Public Works Department as from 1 April 1936.

An interesting sidelight on this is thrown by remarks made in September 1936 by Minister of Works Robert Semple: ¹

‘I was quite prepared to find, owing to several years of financial depression, that there might not be a settled policy and I make due allowance for such difficulties, but I was not prepared to find that the whole of the public works activities had been converted into a system for relief of unemployment.’

Earlier Mr Semple had given a more detailed report. He said: ²

‘When I assumed office approximately twelve thousand men were

employed, the majority of them being relief workers. The complement today is sixteen thousand men, and when the full programme is in active operation I anticipate considerably increasing the number, even with the introduction of much more plant than is now in use. The existing practice of men for public works being sent direct to the Public Works Department by unemployment bureaux in the different centres, and without any regard whatever to their fitness for the work or their capabilities, will cease; in fact, a reclassification on the existing jobs must be done.

‘...Practically all of the works which have been carried out by the Department for several years have been classified as relief works, and the basic rates of pay have been 12/- per day for married and 9/- for single men. Under the new agreement all works will in future be classed as standard works, and the basic rate of pay for labourers will be 16/- per day and single men will receive the same rate of pay as married men.’

In spite of the prominence given to these transfers of status, often amounting to a reversal of what had been done in depression years, much of the expansion represented a genuine extension of works activity. Moreover, it was associated with mechanisation and labour-saving methods, so that more than ever before was being achieved by the use of labour. In the next two years there was a further steady rise in numbers employed, to reach 22,800 in January 1939, but then a slight fall took the figures back to 21,200 in January 1940, four months after the outbreak of war.

While the Labour Government placed reduction of unemployment high on its programme, the employment promotion aspect of public works was, in the immediate pre-war years, overshadowed by a vigorous policy of improvement of highways, land development, school buildings, aerodromes and other works using the best available equipment.

Chart 2 shows public works employment from 1935 to 1940.

Chart 2

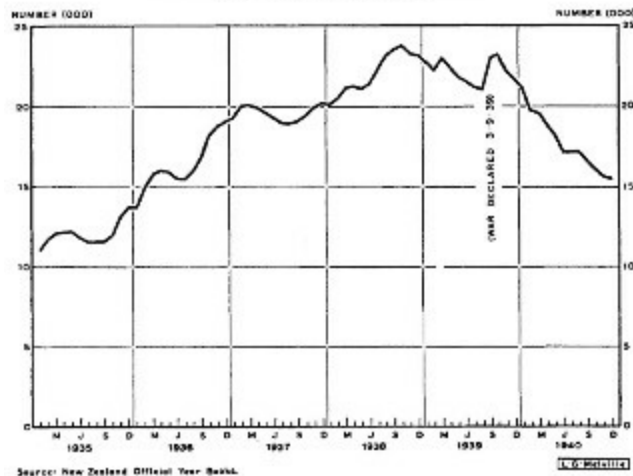
PUBLIC WORKS EMPLOYMENTINCLUDES THOSE DIRECTLY OR INDIRECTLY EMPLOYED
BY THE PUBLIC WORKS DEPARTMENT

Chart 2

PUBLIC WORKS EMPLOYMENT

Public works expenditure which, under depression conditions, had fallen from a level of about £8 million a year to under £2 million in the worst depression year, 1932–33, showed no notable recovery until 1936–37 when it increased to over £4 million. It moved to £7 million in the following year and to over £10 million in 1938–39, taking it above pre-depression levels for the first time. Not unnaturally the Government's public works programme required considerable administrative planning and could not be accelerated rapidly. The housing programme took even longer to gain momentum.

Economic recovery was assisted in the first two years of Labour's term of office by increases of £10 million a year in export earnings. The next two years were not so satisfactory. Export earnings fell and, for 1938 and 1939, stayed £8 million below their 1937 level. Though still £12 million above what they were in 1935 when Labour took office, they were inadequate to pay for the rising cost of imports. The depressive influence on farm incomes was alleviated to some extent by the fact that guaranteed prices held up dairy incomes in 1938–39. This was the first year when guaranteed prices acted as an appreciable offset to the effect of overseas price falls.

The Employment Promotion Fund, after paying out about £4 million

a year for each year from 1932–33 to 1937–38, spent over £6 million in 1938–39 and it was not until the first year of war that payments fell below £3 million. Employment promotion was necessary and costly up to and after the outbreak of war.

¹ NZPD, Vol. 247, p. 198.

² NZPD, Vol. 245, p. 144, 14 May 1936.

State Housing

Provision of state-owned rental dwellings was an important plank in Labour's election platform. In the year ended March 1938 the first four hundred units became available under the scheme.

This housing construction was financed largely by **Reserve Bank** credit, a use of bank credit which provided extra ammunition for the inevitable cross-fire of criticism of any state housing scheme.

The dwellings were let at low rentals, admission being subject to a means test. Strictly uneconomic, ¹ these rentals were given a semblance of relationship to costs by charging only a nominal rate of interest on bank loans to the Government for housing purposes. ² Needless to say this concealed form of subsidy did not escape the attention of the critics.

The programme for construction of state housing was stepped up rapidly and, by the outbreak of war, about three thousand of these dwellings were becoming available each year.

Besides providing housing for the more needy members of the population, the state housing scheme added to the total demand for construction work and, with the augmented public works programme, helped to absorb unemployed labour.

¹ And to become more uneconomic as rentals remained fixed while costs rose.

² Later there was considerable controversy over the actual method of financing state housing (see for example *NZPD*, Vol. 291, p. 2691 and onwards). Loan money, once borrowed, becomes available with other monies for a variety of uses and it is difficult, if not impossible, with most state borrowing to say that the money was raised for any particular purpose, or to distinguish the uses to which it was actually put, but the above paragraphs give a reasonable indication of what was done. The rate of interest charged averaged about 1 1/4 per cent.

Towards the Welfare State

Some of the public works projects inaugurated by the Labour Government in the late 1930s were spectacular, and several, notably the Ngauranga Gorge road and the coast road from Plimmerton to **Paekakariki**, are still outstanding as monuments to New Zealand's most colourful Minister of Works, Robert Semple. However, in these four pre-war years of Labour government probably the greatest influence on the New Zealand economy was the Social Security Act 1938.

Coming into force in April 1939, this Act provided for a system of monetary benefits on a contributory basis and introduced medical, hospital and maternity benefits. Contributions were to be made at a flat rate on virtually all income. Benefits were payable to those with specific needs or commitments, irrespective of the amount of their previous contribution. The most spectacular change was that medical, hospital and maternity benefits were not to be subject to means test and that superannuation benefits, initially at a low rate, were also universal. The universal superannuation benefits were to co-exist with the more liberal age benefits which were still subject to means test; but they would gradually approach the age benefits in value and ultimately supersede them. Family benefits at this stage remained subject to means test, but

in 1940 were extended to an extra child so as to be payable for each child after the first, where the income was under £5 a week. ¹ The Act also extended the range of other types of benefit with the express purposes of providing for all persons who, through youth or age or misfortune, were not able to share adequately in the national output.

The Social Security Act aroused widespread controversy. As we have seen, its immediate effect was to increase the cost of benefits from £6·8 million in 1938–39 to £12·3 million in 1939–40; but the promise of an increasing rate of universal superannuation gave a warning of considerably heavier commitments to come. There were many who thought that the scheme must break down under its own weight, especially in times of unfavourable overseas trading conditions.

¹ Previously payable to each child after the second.

Many interesting comments are recorded in *Hansard* where, for example, reference is made to statements by the Farmers' Union: ¹

‘The Union is rightly concerned respecting the large addition to the imposts of the Government and their possible effect upon the already seriously depleted sterling funds in **London**. The Union also directs attention to the effect it may have upon New Zealand's credit in **London**; especially so as £17 million of loan money will fall due in the first year the proposed scheme comes into operation.’

The Farmers' Union said, further:

‘We would emphasise that in our opinion to proceed with the scheme along the lines of the present proposals is imprudent financially. The prospect of a possible £15 million increase in general taxation at some future time is a possibility which cannot be viewed other than with the gravest misgivings.’

The Associated Chambers of Commerce were no less condemnatory. They said: ²

‘The Prime Minister and the Minister of Finance put forward the hypothesis that maintenance of the same rate of increase in the exports of New Zealand in the next 40 years as in the last 40, would enable the growing costs to be met. We consider that to place any reliance on such a supposition, as a basis for maintaining the scheme, would be reckless.’

The possible future increase of £15 million in general taxation was to prove to be a masterpiece of under-estimation. Twenty years later social security benefits were to cost an extra £68 million a year. On the other hand the volume of exports was to increase by well over 50 per cent in the same twenty years, justifying the confidence of Michael Savage and Walter Nash. ³

Chart 3 gives some impression of the impact of Labour's social security policy on the cost of benefits and pensions.

Apart from the fact that they raised average living standards by providing for those with extra needs or commitments, probably the most important economic influence of the new social security provisions was their very considerable redistribution of income from saving to spending groups and the resulting initial tendency for a higher national total of spending and a smaller national total of

¹ NZPD, Vol. 252, p. 371. Quoted by Hon. Mr Cobbe.

² Ibid. Quoted by Hon. Mr Cobbe.

³ In this 20-year period, export prices were to rise by 208 per cent and consumer prices in New Zealand by 119 per cent. The £ in 1959 would have less than half its 1939 purchasing power.

saving. However, it did not take very long to become apparent that this boost to spending led to an expansion of the New Zealand domestic market and was an encouragement to productive effort. ¹ In fact there

tended to be a secondary redistribution of income back to selling and producing groups, but with a considerable fillip to economic activity in the process. This secondary redistribution was to saving groups, but often to people who, by ploughing back profits, helped to finance development. There were quite strong links between social security and economic development. ²

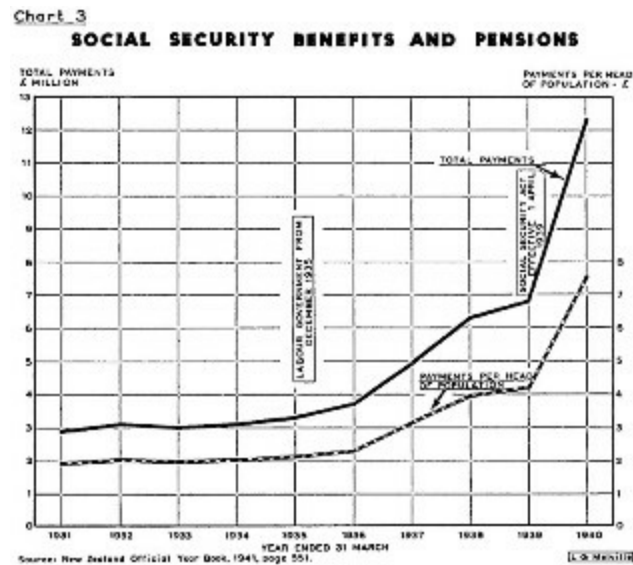


Chart 3
SOCIAL SECURITY BENEFITS AND PENSIONS

Unfortunately this internal effect was not the only effect of welfare provisions. The resulting higher national total of spending also raised the propensity to spend on imports, and tended to create overseas exchange difficulties in years when export prices were unfavourable.

¹ This encouragement to production tended, while there were unused resources, to offset inflationary aspects of the scheme.

² See also 'Social Services and Economic Development' by J. V. T. Baker in *Welfare in New Zealand*, edited by K. J. Scott.

Savage himself was the driving force towards the expansion of social security benefits, just as Robert Semple was the spearhead of public works expansion. However, behind the scenes, as Minister of Finance,

Walter Nash—to become Prime Minister two decades later—was effecting a dramatic change in Government financing and financial control in order to make all these changes in works and social security policy possible.

New Zealand entered the war with her welfare provisions leading the world and being rapidly expanded. Wartime changes were to be minor, but generally in an upward direction.

Changes in Farming

For the farmers, crisis had followed crisis in the 1930s. No sooner were they free of depression conditions than there was a threat to the continuance of the free market for their products in the **United Kingdom. It was only after very strong protests from New Zealand farmers that the United Kingdom Government in 1934 abandoned a proposal for an import quota on butter and cheese, and instead decided to subsidise **United Kingdom** milk production. Imports of meat were not so lucky. A compromise system of short-term quotas operated from 1935 until it was superseded by wartime bulk purchase arrangements. ¹**

Meanwhile the economic depression had had its influence on many facets of **Labour Party policy. It was the income-reducing effect of overseas price falls, perhaps more than their effect on overseas funds, which had enabled the world depression of the early 1930s to communicate itself so fully and disastrously to New Zealand. The **Labour Party** pledged itself to protect farmers against instability in their incomes.**

As part of its policy of insulation, it offered the farmers a guaranteed price for their products which would make them, in the short run, independent of price fluctuations in overseas markets. As it turned out, producers of meat and wool preferred to be without the guaranteed price, and the system applied only to dairy products.

The guaranteed price for dairy products, introduced in August 1936,

very quickly came under pressure when, in 1937–38, rising overseas prices led to a surplus in the account and the farmers promptly demanded a higher payout. They got it.

¹ New Zealand's allocations under the short-term quota system were not unduly restrictive.

In the following year prices fell and the guaranteed price protected dairy farmers against the fall, so to some extent insulating the internal economy. But this insulation did nothing to protect New Zealand's overseas reserves; in fact it may well have been one of many influences leading to continued high importing and to an exchange crisis towards the end of 1938.

Meantime a more lasting change had been taking place in farming—a change which was to have a material influence on its manpower requirements under war conditions. The industry was being very rapidly mechanised and, stimulated by research work by the [Department of Agriculture](#) and the [Department of Scientific and Industrial Research](#), very considerable improvements in methods were being made.

Between 1936 and 1939 the number of agricultural tractors increased by 69 per cent, and in 1940 there were almost twice as many tractors in use as in 1936. This was an amazing transition in only a four-year period. The number of electric motors on farms increased by 60 per cent between 1936 and 1940. Milking machines had been in quite widespread use by 1930, and after 1933 their numbers increased some 770 a year until there were nearly 29,000 by 1939. But, more important, hand stripping, which had always been regarded as an integral part of machine milking, was being eliminated on some farms. The Dairy Board reported: ¹

‘In November and December, 1941, a survey was made of approximately thirty herds where no hand stripping had been carried out for one or more years.... The production data indicated very little, if any, fall in

output per cow as a result of no hand stripping, whether analysed on the basis of the same cows before and after the introduction of non-stripping or on a herd basis.’

Because of these changes, farming, which had in earlier years steadily increased its labour force, was now able to maintain ever-increasing production with a comparatively stable labour force. The change in rate of growth of labour requirements for farming was apparently not widely recognised until after the war and this misunderstanding was to have a major effect on wartime manpower planning.

Chart 4 shows changes in farm mechanisation between 1929 and 1940.

¹ Annual Report of **New Zealand Dairy Board** for year ended July 1944, p. 49.

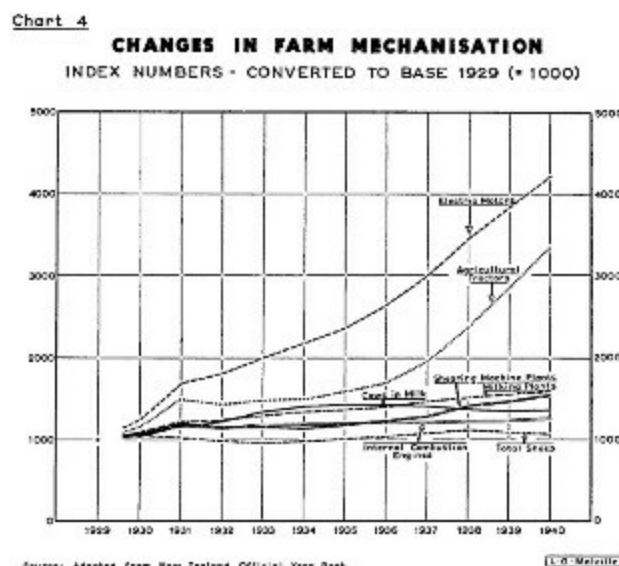


Chart 4
CHANGES IN FARM MECHANISATION
INDEX NUMBERS - CONVERTED TO BASE 1929 (= 1000)

Dependent or Independent Economy?

In pre-war years the **United Kingdom** was taking four-fifths of New

Zealand's exports and supplying nearly half of her imports. Nearly another quarter of New Zealand's imports came from other Commonwealth countries. Commonwealth trading arrangements had been formalised in 1932 in the Ottawa Agreement, and for New Zealand this meant, in the main, the exchange of tariff and quota preferences with the [United Kingdom](#). In effect it gave New Zealand an assurance that the [United Kingdom](#) would continue to absorb the bulk of her exports free of duty and quantitative restrictions, while New Zealand agreed to maintain a 20 per cent tariff preference on most imports from the [United Kingdom](#).

These arrangements, while ensuring a market for farm products, gave New Zealand no protection against price changes on a [United Kingdom](#) market which was from time to time affected by over-supply.

In its 1935 election campaign the [Labour Party](#) had promised to insulate the New Zealand economy against external economic fluctuations. In the first two years of Labour administration, insulation would have involved siphoning off increases in export earnings. The Coalition Government had left the country with substantial overseas reserves. Then in Labour's first year of office export prices rose 14 per cent, and by a further 15 per cent in the second year—truly a most favourable start for any Government's term of office. But in these years the only steps towards insulation were some diversification of the economy and the accumulation of £0·6 million in the special account set up under the guaranteed price scheme for dairy produce.

Between 1936–37 and 1937–38 export prices fell by more than 5 per cent, and Labour's promise was put to the test. The fall in export prices continued into 1938–39, with a further reduction of 3 per cent. These falls were serious but still left export prices at 19 per cent above their level in 1935 when Labour took office. In 1938–39 the dairy farmers' guaranteed price insulated their incomes against the fall, the Dairy Produce Account going into deficit by £1·9 million for the purpose. But the most serious price fall was in wool, which in 1938–39 realised 35 per cent less than the peak prices of 1936–37. Here there was no insulation.

The Government carried on with its expansion policy as if the economy were in fact insulated.

Fortunately import prices were still below their pre-depression levels and the purchasing power of a given quantity of exports increased by 23 per cent between 1935 and 1937. Between 1937 and 1939 this purchasing power, or terms of trade, decreased by 8 per cent, but this still left it 13 per cent above the 1935 level.

However, it was soon to become apparent that insulation would require either unlimited overseas funds or irksome internal restraints.

In 1936 the value of exports had moved above the 1929 level for the first time, when £57 million was earned. The next year earnings increased to £67 million but fell away again to £58 million in 1938 and 1939. Meantime imports, stimulated by increased internal purchasing power and augmented by extra orders of heavy equipment for the public works programme, had increased rapidly up to 1937. The rapid mechanisation of farming also added to the expansion of import requirements.

Imports and exports are shown in Chart 5. Export receipts have to pay for a substantial unfavourable balance of invisible items, such as debt servicing, as well as to meet the cost of imports.

Chart 5

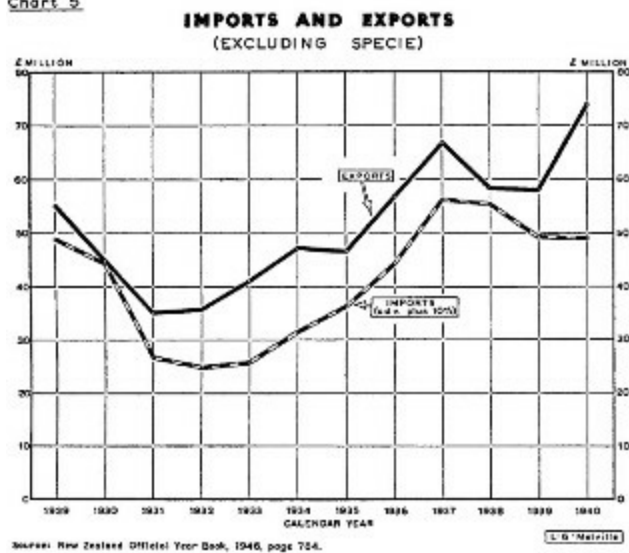


Chart 5
IMPORTS AND EXPORTS
(EXCLUDING SPECIE)

When export earnings fell in 1938, imports remained high, leading to successive falls in the overseas reserves of the banks. This influence, combined with some flight of capital as a result of a loss of public confidence, resulted in the overseas reserves in December 1938 falling to the dangerously low level of under £7 million. The **Labour Party's** promise to insulate the New Zealand economy was now under a most exacting test. Disaster was avoided by resort to exchange and import controls at the end of 1938, but, even so, New Zealand entered the war with overseas reserves still at an extremely low level. They were only £16 million in December 1938, £20 million below their December 1935 level. Changes in net overseas assets of the banks are shown in Chart 6.

Chart 6

NET OVERSEAS ASSETS OF THE BANKS

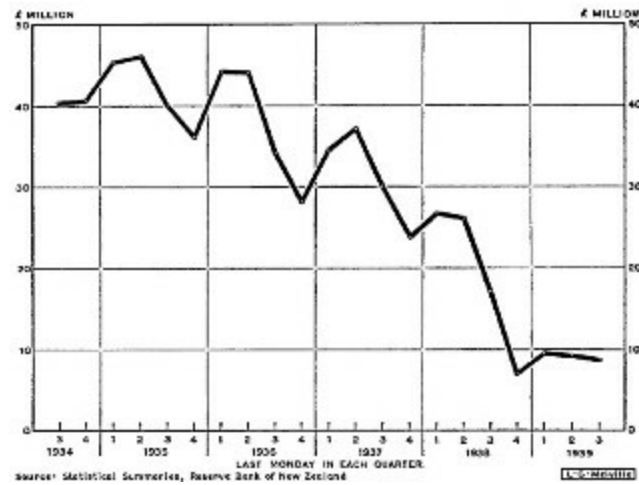


Chart 6

NET OVERSEAS ASSETS OF THE BANKS

Import controls were a direct restriction on the freedom of action of a considerable economic group and must have seemed a high price for them to pay for the attempt at insulation. But the **Labour Party** seems to have been tolerant to this form of control. ¹ It offered secure protection for the rapid expansion of manufacturing which would be essential if the production base of the economy was to become broad enough to make insulation practicable.

Whether the electors would have tolerated import controls was not really put to the test at this stage. Before there was another election, import controls, along with many other controls, were to become necessary to protect the war economy.

Insulation against overseas economic disturbances had not proved so easy. The country had been subjected to import restrictions and, even with these restrictions, there was still considerable danger of financial disaster in New Zealand's external relations. It may not be fair to say, as some have said, ² that the war saved the Labour Government from financial disaster externally, but it is certain that a very crucial testing period was avoided when war came and completely changed the influences on the external economy.

¹ Some members had advocated it for many years.

² NZPD, Vol. 256, p. 446.

Diversification of the Economy

In the depression, factory production had fallen by 19 per cent while farm production remained comparatively stable. In fact 1932–33, which in many respects was the worst year of the depression, saw a sharp rise in farm production. Nevertheless there was, in the 1930s, a definite indication that it might not be too long before manufacturing overtook farming as New Zealand's major producer.

Manufacturing output made its first major recovery in 1934–35 when there was a 14 per cent increase over the previous year. In 1935–36 there was a further 9 per cent increase and in 1936–37 a 14 per cent increase. This brought the level of factory production to 53 per cent above 1931–32, which had been the lowest year in the depression, and to 30 per cent above the pre-depression level of 1928–29. After 1936–37 the rate of increase tapered off, with a 7 per cent rise in 1937–38 and 5 per cent rise in 1938–39. In the following year, aided no doubt by the exchange restrictions, which became effective in December 1938, and the supporting quota restrictions on imports, the increase in manufacturing production was 10 per cent.

Chart 7 shows changes in the volume of manufacturing output from pre-depression to pre-war years.

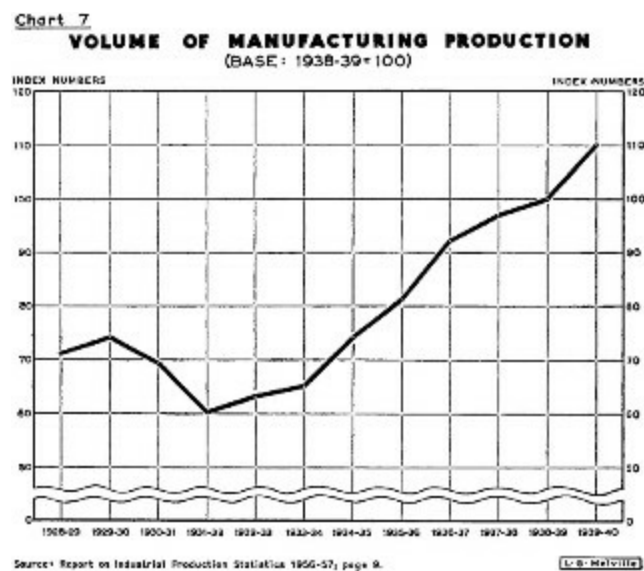


Chart 7
VOLUME OF MANUFACTURING PRODUCTION

In accordance with the Labour Government's declared policy of expanding production, a **Bureau of Industry** had been set up in 1937 to plan new industry. The Bureau discussed and was interested in varying degree in the establishment of a number of new industries. However, it is likely that the shelter given, from 1938, by import restrictions did much more than the Bureau towards the diversification of industry. It was Labour's intention to expand industries other than farming, in order to make New Zealand less dependent on overseas sales of a narrow range of farm products. Quantitative control of imports gave the opportunity for considerable direct influence in this direction.

Import controls were to give fertilisers and other farm requirements first priority, then capital equipment and raw materials for industry. However, there were many major consumer goods such as tea, sugar and petrol which it was politically inexpedient to cut back in time of peace. Thus the range of preferred items was very wide, and considerable cuts were necessary in less favoured items. Industry in New Zealand tended to fill the gaps. The result was certainly diversification, but often in a rather haphazard way.

Even before import controls, manufacturing was gathering strength and, in spite of the depression, output increased well over 50 per cent in

the decade preceding the war. The rapid upward movement of factory production in the late thirties—an increase of 36 per cent in the four years from 1935–36 to 1939–40—was no doubt assisted by other Labour policy measures which increased consumer spending and also made direct demands on the economy through the expansion of public works.

New Zealand entered the war with a wide range of manufacturing industries. Some were still in the embryo stage, but, faced with extra wartime demands, they were to fill many gaps left by the preoccupation of overseas suppliers with their own war requirements.

Financial Difficulties

On the financial side, one of the outstanding influences of the pre-war period was the very sharp lesson which had been given during the depression on the pitfalls of allowing overseas indebtedness to rise too high. Falling export earnings in the depression years had resulted in overseas debt servicing absorbing well over a quarter of all export earnings. What remained was quite inadequate to pay for imports. Relief came in due course with rising export prices, assisted perhaps by depreciation of the currency in 1933. Borrowing continued on a reduced scale until 1933 and, in 1934, there were some repayments of overseas debt.

The lesson was that it was obviously bad policy for any Minister of Finance to allow overseas debt servicing to loom relatively so large again. This made a profound impression on the **Labour Party**, which was to show a marked reluctance to borrow overseas, even under stress of war conditions. Some economists and others have not taken the same lesson from the depression and there has been pressure for renewed overseas borrowing and quite sharp criticism, on occasions, when overseas indebtedness has been reduced. ¹

In accordance with its declared policy, the Labour Government nationalised the **Reserve Bank** in 1936, but there was not very much use of **Reserve Bank** credit until June 1938. Government net indebtedness to

the banking system as a whole increased by less than £4 million between March 1935 and March 1938. However, in 1938–39, advances to the Government began to rise and Government indebtedness increased by nearly £18 million between March 1938 and March 1939.²

Chart 8 shows Reserve Bank advances to the State and emphasises the rapid upsurge after the second quarter of 1938. Government securities held by trading banks were also increasing.

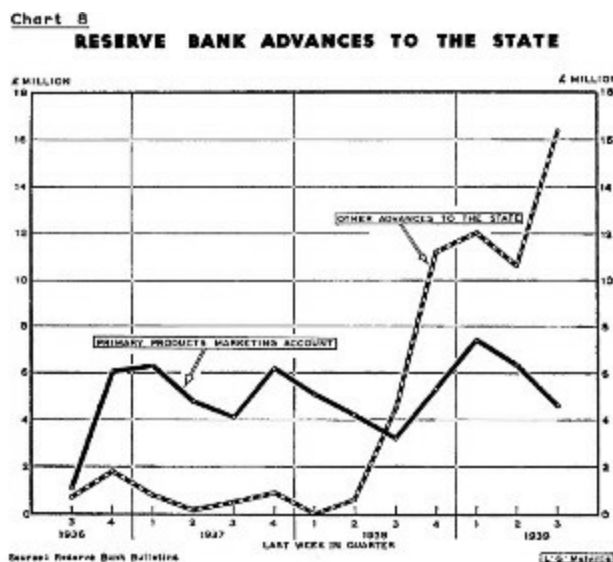


Chart 8
RESERVE BANK ADVANCES TO THE STATE

¹ NZPD, Vol. 273, p. 337. Also Vol. 282, p. 1686, and Vol. 292, p. 2108. As time passed and export prices rose, repetition of depression difficulties would naturally seem much more remote.

² Reserve Bank of New Zealand Bulletin, November 1959, p. 173.

As might have been expected, there was very considerable public criticism at the increasing use of bank credit by the Government.¹ All sorts of national disasters were foretold. Some loss of public confidence certainly resulted, aided no doubt by the evidence of overseas difficulties offered by falling overseas reserves. There was some flight of capital from New Zealand, aggravating the overseas reserve situation. To bring

the results nearer home, Post Office Savings Bank deposits fell sharply, cutting at an alternative source of government funds. In the two years from March 1938 to March 1940, withdrawals exceeded deposits by £8 million.

In 1939–40 Government indebtedness to the banking system increased by a further £12 million, but part of this sum was required for war purposes.

¹ For some of the more sober criticism see *Evening Post* second leader, 13 March 1939, third leader, 31 March 1939, second leader, 26 April 1939, and leader of 1 May 1939.

Rising Retail Prices

At the outbreak of war, retail prices were 25 per cent above their 1933 level and had been increasing steadily. After a first tentative increase of a little over 1 ½ per cent in 1934, annual price increases had been around 3 or 4 per cent, except for the increase of nearly 7 per cent in 1937 which was probably attributable in part to the general wage increases of the previous year. The rate of price increase was fast.

There were considerable inflationary influences on the economy, especially after the Labour Government commenced its legislative programme in 1936, but unemployment was being steadily reduced and New Zealand's production was expanding. In other words, a considerable portion of the extra spending potential was being absorbed by extra production and reduced unemployment, so it is a little surprising that the rate of price increase was so rapid.

In this context, however, it should be noted that, in 1939, retail prices had still not reached the level of the highest pre-depression year. In the 1920s prices had been relatively stable, fluctuating by only 4 per cent upwards or downwards, but between 1929 and 1933 they had dropped by a fifth. By 1939, after six successive years of rises, prices

were still just a little below the average for the 1920s.

Chart 9 shows price changes between 1920 and 1939.



Chart 9
RETAIL PRICES - ALL GROUPS
INDEX NUMBERS - BASE FIRST QUARTER 1949 (= 1000)

Living Standards Rise and Fall

What was happening to living standards while these momentous influences were changing the economy? Goods available increased steadily from 1931–32 to 1937–38 but then fell slightly under the influence of falling overseas earnings and import restrictions. However, goods supply part only of people's needs.

There is no comprehensive measure of living standards; all the statistician can provide is an approximate measure of the physical things which people use. These figures, taken on a per head basis, give some indication of potential living standards. The depression year 1931–32 stands out as a low point in the series and a good deal of the immediately following increase represents post-depression recovery.

One of the features of the depression period was that at the very time when overseas price changes were reducing the ability of New Zealand exports to purchase overseas manufactures, New Zealand's own

production of manufactured goods was also drastically reduced. Expressed in 1938–39 prices, goods to the value of £116 million were available for use in New Zealand in the June year 1929–30.¹ This was made up of £69 million which remained from local production after allowing for exports, together with £47 million worth of imported goods. Imports (again valued at 1938–39 prices) fell to £27 million in 1931–32 and, partly as a result of an £8 million fall in local production, goods remaining from local production after exports fell to £57 million. Thus a fall of £20 million from imports was accompanied by a fall from local production, and the volume of goods available for use in New Zealand fell staggeringly by 27 per cent in these two years.

Thereafter the volume of goods available for use in New Zealand increased slowly until 1933–34 and then rapidly until 1937–38. In the next two years it fell once more, as a result of declining imports.

Chart 10 shows changes in the volume of goods available and also in goods available per head of population, and throws some light on the more material aspects of living standards. It is of interest that the 1929–30 volume available per head was not again reached until 1936–37.

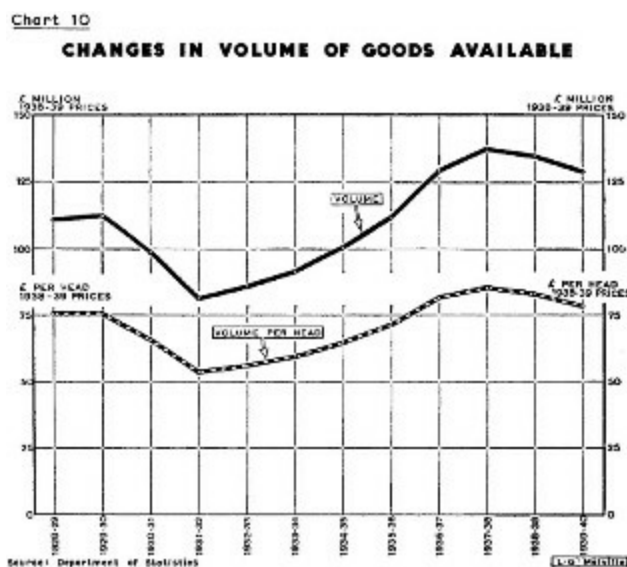


Chart 10
CHANGES IN VOLUME OF GOODS AVAILABLE

Goods available per head reached a low point in 1931–32 and then

increased yearly, accelerating in the period 1934–35 to 1936–37, with a more moderate increase in 1937–38. However, overseas prices fell, and there was not sufficient insulation to prevent falling export earnings from pulling down living standards by 2 per cent in the following year. This was only a forerunner of more drastic cuts in living standards which would become necessary under war conditions.

¹ *New Zealand Official Yearbook*, 1945, p. 598.

Pre-war Economic Crisis?

In forming judgments about the pre-war situation, proper weight must be given to the fall in export earnings in 1938, which was one of the causes leading to import restrictions. It is equally important not to overweight this influence. Export earnings averaged £57 million a year for the years 1935 to 1939 as compared with £41 million a year in the preceding five years, 1930 to 1934. This is hardly a fair comparison, as the latter five years included the depression. However, in the pre-depression years 1925 to 1929, export earnings had averaged £52 million. The average for the immediate pre-war period 1935 to 1939 was 10 per cent above this level and, in the conditions of the time, this cannot be regarded as an unsatisfactory result.

The year 1937, when export earnings reached nearly £67 million, was in fact an all-time record up to that point, and the year 1938, to whose waywardness the imposition of import controls has been attributed, was then the highest year of any on record, except 1937. Looking back, therefore, it is difficult to see how New Zealand could have got herself into such financial difficulty externally, unless she was pushing her internal resources too hard or building up an excessive money demand which was spilling over into importing.

The internal economy was not under extreme upward pressure. Numbers unemployed and in assisted employment were still as high as 19,000 at the outbreak of war. Although some economists at the time

referred to this as full employment, war and post-war experience was to show quite clearly that full employment in New Zealand could bring the unemployment level down to hundreds rather than thousands. ¹

Certainly the economy was developing at an unaccustomed pace and lack of money was not being allowed to delay welfare provisions, public works or housing. Naturally the resulting pressure of internal demand spread to imports. Then came the fall in export prices and the run down in reserves. If one is entitled

¹ See also

to distinguish between the two blades of a pair of shears, it was the extra importing rather than the level of export prices which caused the overseas exchange crisis.

With bank credit being extensively used internally, those who believed in more orthodox financial methods not unnaturally lost confidence in New Zealand's ability to remain solvent. This was brought sharply home to the Government by the flight of capital from New Zealand, and later by the difficulties Mr Nash had in 1939 in finding suitable funds in **London** to repay a maturing loan. So stringent were the repayment conditions Mr Nash was forced to accept that there was some doubt whether New Zealand would be able to meet them. A *Round Table* article said: ¹

‘The Minister of Finance (Mr Nash) during his recent visit to **London**, arranged that the £17,000,000 which falls due on January 1, 1940, would be reduced to £16,000,000 on due date, and the balance repaid in half-yearly sums amounting to £2,000,000 in 1940–41 and £3,500,000 in each of the four succeeding years, less any amounts the bond holders elect to convert. He also arranged a loan of £5,000,000 from the United Kingdom Government for defence and other public purposes; also an export credit of £4,000,000.

‘Although expressions of gratitude for the assistance given by the United Kingdom Government have been made in many quarters, serious doubts have been raised as to whether the temporary relief afforded will enable New Zealand to weather the financial storm into which she has sailed.

‘It is generally recognised that unless there is a sharp rise in the price of primary products, New Zealand will have to make a stern effort of national self-denial in order to meet the capital repayments and also find the £12,000,000 annually required to pay overseas interest, freights and other obligations....’

This chastening experience stiffened Labour's determination not to become further dependent on overseas capital and may have been in large measure responsible for the almost complete reliance on internal sources to finance New Zealand's war effort.

In its domestic policy the Labour Government had drawn extensively on bank credit, but, in terms of welfare provisions, new public works, extra housing and increases in production and employment, a very great deal had been done. These achievements justified, indeed required, some expansion in the monetary base of the economy, but the expansion seems to have been overdone. Even so, it is possible that New Zealand could have weathered the resulting financial storm. This was never really put to the test. War was declared the day before Mr Nash returned from his mission.

¹ *Round Table*, Vol. 117, December 1939, p. 226.

WAR ECONOMY

MEN NOT WANTED

Men Not Wanted

WHEN Prime Minister Michael Joseph Savage attended the 1937 Imperial Conference and declared that the causes of war were economic, New Zealand was hardly out of the throes of bitterness generated by the great economic depression of the thirties.

It is probable that memory of the depression was the strongest influence leading to the overthrow of the Coalition Government at the 1935 general election and its replacement by Savage's Labour Government.

Even in 1935, two years after the worst year of the depression, the economy was unable without Government assistance to employ more than eighty-nine out of every hundred men. Eleven in every hundred in the labour force were wholly or partly a charge on the Unemployment Fund. Against this background Savage's **Labour Party offered a forceful policy for expansion of production. It was a strongly socialistic policy containing much which was repulsive to many in a predominantly private enterprise economy; but it convincingly promised a determined attack on the sickening spectacle of continued large-scale unemployment. It swept the party into power.**

Actually, unemployment had shown quite a strong falling tendency before Labour took office, but this tendency was accelerated in the following two years. The numbers of men wholly or partly a charge on the Fund had fallen from an average of fourteen in every hundred of the labour force in 1933 to twelve in 1934 and to eleven in 1935. In December of that year the Government changed and, in the first two years of Labour administration, the fall continued, to reach nine in every hundred in 1936. ¹ By 1937 it was nearly as low as six.

This was the position when Savage went to the Imperial Conference in 1937—rather more than 6 per cent of unemployment or assisted employment, well under half of the 1933 level, but still considerably above the New Zealand long-term average.

In the next two years there was a distinct danger that the tide of improvement would ebb. In 1938 the numbers who were wholly or partly a charge on the Employment Promotion Fund decreased only insignificantly. There was, however, a considerable increase in the proportion who were working full time in industry with assistance from the Fund, accompanied by a corresponding decrease in numbers on rationed work or sustenance without work.

In 1936 the new Labour Government had emphasised its more positive outlook on employment problems by passing the Employment Promotion Act 1936, to supersede the Unemployment Act 1930. Administration passed from the Unemployment Board to the Employment Division of the Department of Labour which was, in time of war, to become the **National Service Department. Emphasis was to be on the permanent extension of employment avenues rather than on temporary relief.**

In 1939 a further major step was taken with the merging of the Employment Promotion Fund into the Social Security Fund, in terms of the Social Security Act 1938. This was illustrative of the central place which Labour gave to welfare policy and the tendency to bring together as far as possible for co-ordinated attention the widening range of Government provisions for people with special needs or responsibilities.

With the 1939 change the nature of unemployment benefits also changed and the sequence in these statistics was lost. The new series of information showed comparative stability into 1940, but in September 1939 war came. Its demands for men for the armed forces were soon to alter the whole outlook on manpower. According to the **National Service Department,² New Zealand entered the war with 19,000 men on unemployment benefit or in subsidised work.**

Chart 1 shows changes in numbers receiving various types of unemployment assistance.

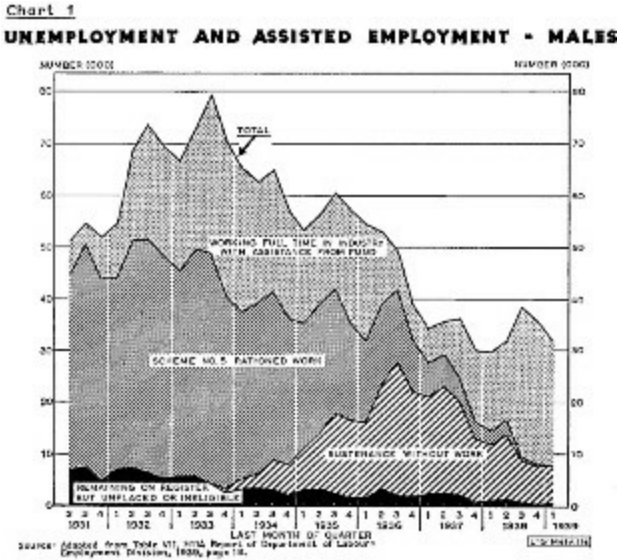


Chart 1
UNEMPLOYMENT AND ASSISTED EMPLOYMENT - MALES

¹ Answering a question about the number on unemployment relief, Minister of Labour H. T. Armstrong said in April 1936:

‘These are the latest available figures up to the 14th March last: Under Scheme Number 5, rationed relief, 15,704; on sustenance, 14,443; gold prospecting, 2,328; afforestation, 1,005; farm subsidy schemes, 3,117; Public Works - roads, aerodromes, etc. - 8,435; local bodies - subsidised employment - 2,831; small farms development, 1,257; miscellaneous, 3,537; a total of 52,657.’

***New Zealand Parliamentary Debates* (subsequently *NZPD*), Vol. 244, pp. 360–1, 16 April 1936.**

² H-11A, Report of the National Service Department, 1946, p. 74.

WAR ECONOMY

EMPLOYMENT PROMOTION

Employment Promotion

The keys to Labour's employment promotion policy were higher personal incomes and expenditure, together with extended public works and housing programmes. The Finance Act 1936 restored public service salaries and the wage rates payable under awards to those prevailing before May 1931, when the first 10 per cent cut on wages had been made under depression conditions. Other wages were to follow suit. By 1937 wage rates, as measured by the Nominal Wage Rates Index, were 21 per cent above the 1935 average.

Various types of monetary provision made by the State were also increased and the range of benefits extended. Pension payments increased steadily from £3·3 million in the year ended March 1935 to £6·8 million in the year ended March 1939. In the following year, augmented by new Social Security provisions, the total of pensions and Social Security payments moved to £12·3 million and in 1940–41 was to reach £14·3 million, which was well over four times the 1935 level.

The numbers of men engaged on public works projects increased rapidly from under fourteen thousand in January 1936 to over nineteen thousand in January 1937.

It is true that, in the early stages, the Labour Government concentrated on transferring men from subsidised employment and part-time employment to full-time public works jobs. For example, highways and road works being carried on at the instigation of the Unemployment Board were transferred to the Public Works Department as from 1 April 1936.

An interesting sidelight on this is thrown by remarks made in September 1936 by Minister of Works Robert Semple: ¹

'I was quite prepared to find, owing to several years of financial depression, that there might not be a settled policy and I make due allowance for such difficulties, but I was not prepared to find that the whole of the public works activities had been converted into a system for relief of unemployment.'

Earlier Mr Semple had given a more detailed report. He said: ²

'When I assumed office approximately twelve thousand men were employed, the majority of them being relief workers. The complement today is sixteen thousand men, and when the full programme is in active operation I anticipate considerably increasing the number, even with the introduction of much more plant than is now in use. The existing practice of men for public works being sent direct to the Public Works Department by unemployment bureaux in the different centres, and without any regard whatever to their fitness for the work or their capabilities, will cease; in fact, a reclassification on the existing jobs must be done.

'...Practically all of the works which have been carried out by the Department for several years have been classified as relief works, and the basic rates of pay have been 12/- per day for married and 9/- for single men. Under the new agreement all works will in future be classed as standard works, and the basic rate of pay for labourers will be 16/- per day and single men will receive the same rate of pay as married men.'

In spite of the prominence given to these transfers of status, often amounting to a reversal of what had been done in depression years, much of the expansion represented a genuine extension of works activity. Moreover, it was associated with mechanisation and labour-saving methods, so that more than ever before was being achieved by the use of labour. In the next two years there was a further steady rise in numbers employed, to reach 22,800 in January 1939, but then a slight fall took the figures back to 21,200 in January 1940, four months after the outbreak of war.

While the Labour Government placed reduction of unemployment high on its programme, the employment promotion aspect of public works was, in the immediate pre-war years, overshadowed by a vigorous policy of improvement of highways, land development, school buildings, aerodromes and other works using the best available equipment.

Chart 2 shows public works employment from 1935 to 1940.

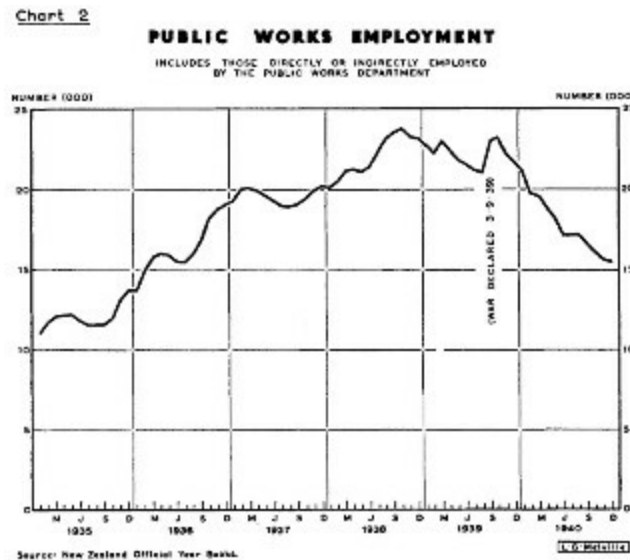


Chart 2
PUBLIC WORKS EMPLOYMENT

Public works expenditure which, under depression conditions, had fallen from a level of about £8 million a year to under £2 million in the worst depression year, 1932–33, showed no notable recovery until 1936–37 when it increased to over £4 million. It moved to £7 million in the following year and to over £10 million in 1938–39, taking it above pre-depression levels for the first time. Not unnaturally the Government's public works programme required considerable administrative planning and could not be accelerated rapidly. The housing programme took even longer to gain momentum.

Economic recovery was assisted in the first two years of Labour's term of office by increases of £10 million a year in export earnings. The next two years were not so satisfactory. Export earnings fell and, for 1938 and 1939, stayed £8 million below their 1937 level. Though still

£12 million above what they were in 1935 when Labour took office, they were inadequate to pay for the rising cost of imports. The depressive influence on farm incomes was alleviated to some extent by the fact that guaranteed prices held up dairy incomes in 1938–39. This was the first year when guaranteed prices acted as an appreciable offset to the effect of overseas price falls.

The Employment Promotion Fund, after paying out about £4 million a year for each year from 1932–33 to 1937–38, spent over £6 million in 1938–39 and it was not until the first year of war that payments fell below £3 million. Employment promotion was necessary and costly up to and after the outbreak of war.

¹ *NZPD*, Vol. 247, p. 198.

² *NZPD*, Vol. 245, p. 144, 14 May 1936.

WAR ECONOMY

STATE HOUSING

State Housing

Provision of state-owned rental dwellings was an important plank in Labour's election platform. In the year ended March 1938 the first four hundred units became available under the scheme.

This housing construction was financed largely by Reserve Bank credit, a use of bank credit which provided extra ammunition for the inevitable cross-fire of criticism of any state housing scheme.

The dwellings were let at low rentals, admission being subject to a means test. Strictly uneconomic,¹ these rentals were given a semblance of relationship to costs by charging only a nominal rate of interest on bank loans to the Government for housing purposes.² Needless to say this concealed form of subsidy did not escape the attention of the critics.

The programme for construction of state housing was stepped up rapidly and, by the outbreak of war, about three thousand of these dwellings were becoming available each year.

Besides providing housing for the more needy members of the population, the state housing scheme added to the total demand for construction work and, with the augmented public works programme, helped to absorb unemployed labour.

¹ And to become more uneconomic as rentals remained fixed while costs rose.

² Later there was considerable controversy over the actual method of financing state housing (see for example *NZPD*, Vol. 291, p. 2691 and onwards). Loan money, once borrowed, becomes

available with other monies for a variety of uses and it is difficult, if not impossible, with most state borrowing to say that the money was raised for any particular purpose, or to distinguish the uses to which it was actually put, but the above paragraphs give a reasonable indication of what was done. The rate of interest charged averaged about 1 1/4 per cent.

WAR ECONOMY

TOWARDS THE WELFARE STATE

Towards the Welfare State

Some of the public works projects inaugurated by the Labour Government in the late 1930s were spectacular, and several, notably the Ngauranga Gorge road and the coast road from Plimmerton to Paekakariki, are still outstanding as monuments to New Zealand's most colourful Minister of Works, Robert Semple. However, in these four pre-war years of Labour government probably the greatest influence on the New Zealand economy was the Social Security Act 1938.

Coming into force in April 1939, this Act provided for a system of monetary benefits on a contributory basis and introduced medical, hospital and maternity benefits. Contributions were to be made at a flat rate on virtually all income. Benefits were payable to those with specific needs or commitments, irrespective of the amount of their previous contribution. The most spectacular change was that medical, hospital and maternity benefits were not to be subject to means test and that superannuation benefits, initially at a low rate, were also universal. The universal superannuation benefits were to co-exist with the more liberal age benefits which were still subject to means test; but they would gradually approach the age benefits in value and ultimately supersede them. Family benefits at this stage remained subject to means test, but in 1940 were extended to an extra child so as to be payable for each child after the first, where the income was under £5 a week. ¹ The Act also extended the range of other types of benefit with the express purposes of providing for all persons who, through youth or age or misfortune, were not able to share adequately in the national output.

The Social Security Act aroused widespread controversy. As we have seen, its immediate effect was to increase the cost of benefits from £6·8 million in 1938–39 to £12·3 million in 1939–40; but the promise of an increasing rate of universal superannuation gave a warning of

considerably heavier commitments to come. There were many who thought that the scheme must break down under its own weight, especially in times of unfavourable overseas trading conditions.

¹ Previously payable to each child after the second.

Many interesting comments are recorded in *Hansard* where, for example, reference is made to statements by the Farmers' Union: ¹

‘The Union is rightly concerned respecting the large addition to the imposts of the Government and their possible effect upon the already seriously depleted sterling funds in **London**. The Union also directs attention to the effect it may have upon New Zealand's credit in **London**; especially so as £17 million of loan money will fall due in the first year the proposed scheme comes into operation.’

The Farmers' Union said, further:

‘We would emphasise that in our opinion to proceed with the scheme along the lines of the present proposals is imprudent financially. The prospect of a possible £15 million increase in general taxation at some future time is a possibility which cannot be viewed other than with the gravest misgivings.’

The Associated Chambers of Commerce were no less condemnatory. They said: ²

‘The Prime Minister and the Minister of Finance put forward the hypothesis that maintenance of the same rate of increase in the exports of New Zealand in the next 40 years as in the last 40, would enable the growing costs to be met. We consider that to place any reliance on such a supposition, as a basis for maintaining the scheme, would be reckless.’

The possible future increase of £15 million in general taxation was to prove to be a masterpiece of under-estimation. Twenty years later social security benefits were to cost an extra £68 million a year. On the

other hand the volume of exports was to increase by well over 50 per cent in the same twenty years, justifying the confidence of Michael Savage and Walter Nash. ³

Chart 3 gives some impression of the impact of Labour's social security policy on the cost of benefits and pensions.

Apart from the fact that they raised average living standards by providing for those with extra needs or commitments, probably the most important economic influence of the new social security provisions was their very considerable redistribution of income from saving to spending groups and the resulting initial tendency for a higher national total of spending and a smaller national total of

¹ *NZPD*, Vol. 252, p. 371. Quoted by Hon. Mr Cobbe.

² *Ibid.* Quoted by Hon. Mr Cobbe.

³ In this 20-year period, export prices were to rise by 208 per cent and consumer prices in New Zealand by 119 per cent. The £ in 1959 would have less than half its 1939 purchasing power.

saving. However, it did not take very long to become apparent that this boost to spending led to an expansion of the New Zealand domestic market and was an encouragement to productive effort. ¹ In fact there tended to be a secondary redistribution of income back to selling and producing groups, but with a considerable fillip to economic activity in the process. This secondary redistribution was to saving groups, but often to people who, by ploughing back profits, helped to finance development. There were quite strong links between social security and economic development. ²

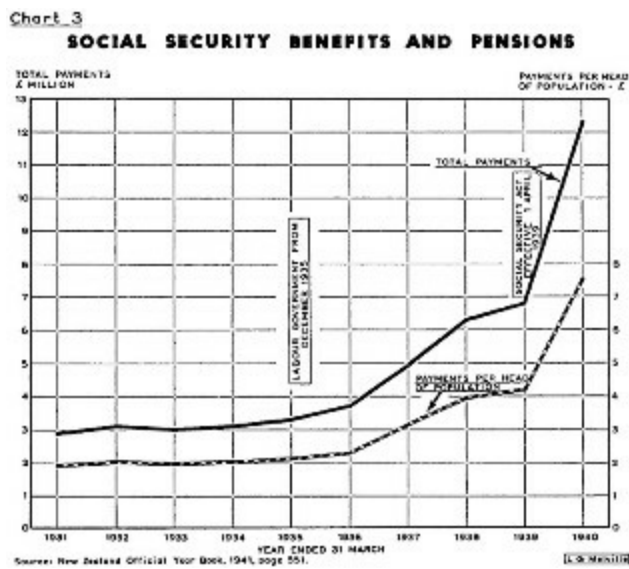


Chart 3
SOCIAL SECURITY BENEFITS AND PENSIONS

Unfortunately this internal effect was not the only effect of welfare provisions. The resulting higher national total of spending also raised the propensity to spend on imports, and tended to create overseas exchange difficulties in years when export prices were unfavourable.

¹ This encouragement to production tended, while there were unused resources, to offset inflationary aspects of the scheme.

² See also 'Social Services and Economic Development' by **J. V. T. Baker** in *Welfare in New Zealand*, edited by K. J. Scott.

Savage himself was the driving force towards the expansion of social security benefits, just as Robert Semple was the spearhead of public works expansion. However, behind the scenes, as Minister of Finance, Walter Nash—to become Prime Minister two decades later—was effecting a dramatic change in Government financing and financial control in order to make all these changes in works and social security policy possible.

New Zealand entered the war with her welfare provisions leading the world and being rapidly expanded. Wartime changes were to be minor, but generally in an upward direction.

WAR ECONOMY

CHANGES IN FARMING

Changes in Farming

For the farmers, crisis had followed crisis in the 1930s. No sooner were they free of depression conditions than there was a threat to the continuance of the free market for their products in the **United Kingdom**. It was only after very strong protests from New Zealand farmers that the United Kingdom Government in 1934 abandoned a proposal for an import quota on butter and cheese, and instead decided to subsidise **United Kingdom** milk production. Imports of meat were not so lucky. A compromise system of short-term quotas operated from 1935 until it was superseded by wartime bulk purchase arrangements.¹

Meanwhile the economic depression had had its influence on many facets of **Labour Party** policy. It was the income-reducing effect of overseas price falls, perhaps more than their effect on overseas funds, which had enabled the world depression of the early 1930s to communicate itself so fully and disastrously to New Zealand. The **Labour Party** pledged itself to protect farmers against instability in their incomes.

As part of its policy of insulation, it offered the farmers a guaranteed price for their products which would make them, in the short run, independent of price fluctuations in overseas markets. As it turned out, producers of meat and wool preferred to be without the guaranteed price, and the system applied only to dairy products.

The guaranteed price for dairy products, introduced in August 1936, very quickly came under pressure when, in 1937–38, rising overseas prices led to a surplus in the account and the farmers promptly demanded a higher payout. They got it.

¹ New Zealand's allocations under the short-term quota system

were not unduly restrictive.

In the following year prices fell and the guaranteed price protected dairy farmers against the fall, so to some extent insulating the internal economy. But this insulation did nothing to protect New Zealand's overseas reserves; in fact it may well have been one of many influences leading to continued high importing and to an exchange crisis towards the end of 1938.

Meantime a more lasting change had been taking place in farming—a change which was to have a material influence on its manpower requirements under war conditions. The industry was being very rapidly mechanised and, stimulated by research work by the **Department of Agriculture** and the **Department of Scientific and Industrial Research**, very considerable improvements in methods were being made.

Between 1936 and 1939 the number of agricultural tractors increased by 69 per cent, and in 1940 there were almost twice as many tractors in use as in 1936. This was an amazing transition in only a four-year period. The number of electric motors on farms increased by 60 per cent between 1936 and 1940. Milking machines had been in quite widespread use by 1930, and after 1933 their numbers increased some 770 a year until there were nearly 29,000 by 1939. But, more important, hand stripping, which had always been regarded as an integral part of machine milking, was being eliminated on some farms. The Dairy Board reported: ¹

‘In November and December, 1941, a survey was made of approximately thirty herds where no hand stripping had been carried out for one or more years.... The production data indicated very little, if any, fall in output per cow as a result of no hand stripping, whether analysed on the basis of the same cows before and after the introduction of non-stripping or on a herd basis.’

Because of these changes, farming, which had in earlier years steadily increased its labour force, was now able to maintain ever-

increasing production with a comparatively stable labour force. The change in rate of growth of labour requirements for farming was apparently not widely recognised until after the war and this misunderstanding was to have a major effect on wartime manpower planning.

Chart 4 shows changes in farm mechanisation between 1929 and 1940.

¹ Annual Report of **New Zealand Dairy Board** for year ended July 1944, p. 49.

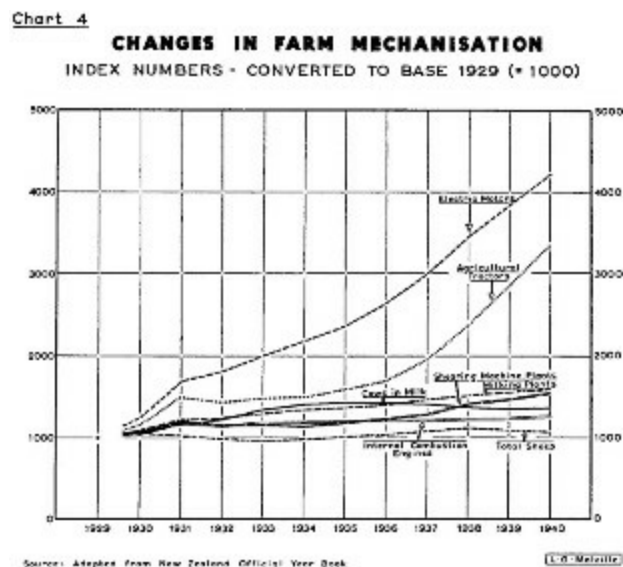


Chart 4
CHANGES IN FARM MECHANISATION
INDEX NUMBERS - CONVERTED TO BASE 1929 (= 1000)

WAR ECONOMY

DEPENDENT OR INDEPENDENT ECONOMY?

Dependent or Independent Economy?

In pre-war years the **United Kingdom** was taking four-fifths of New Zealand's exports and supplying nearly half of her imports. Nearly another quarter of New Zealand's imports came from other Commonwealth countries. Commonwealth trading arrangements had been formalised in 1932 in the Ottawa Agreement, and for New Zealand this meant, in the main, the exchange of tariff and quota preferences with the **United Kingdom**. In effect it gave New Zealand an assurance that the **United Kingdom** would continue to absorb the bulk of her exports free of duty and quantitative restrictions, while New Zealand agreed to maintain a 20 per cent tariff preference on most imports from the **United Kingdom**.

These arrangements, while ensuring a market for farm products, gave New Zealand no protection against price changes on a **United Kingdom** market which was from time to time affected by over-supply.

In its 1935 election campaign the **Labour Party** had promised to insulate the New Zealand economy against external economic fluctuations. In the first two years of Labour administration, insulation would have involved siphoning off increases in export earnings. The Coalition Government had left the country with substantial overseas reserves. Then in Labour's first year of office export prices rose 14 per cent, and by a further 15 per cent in the second year—truly a most favourable start for any Government's term of office. But in these years the only steps towards insulation were some diversification of the economy and the accumulation of £0·6 million in the special account set up under the guaranteed price scheme for dairy produce.

Between 1936–37 and 1937–38 export prices fell by more than 5 per cent, and Labour's promise was put to the test. The fall in export prices

continued into 1938–39, with a further reduction of 3 per cent. These falls were serious but still left export prices at 19 per cent above their level in 1935 when Labour took office. In 1938–39 the dairy farmers' guaranteed price insulated their incomes against the fall, the Dairy Produce Account going into deficit by £1·9 million for the purpose. But the most serious price fall was in wool, which in 1938–39 realised 35 per cent less than the peak prices of 1936–37. Here there was no insulation.

The Government carried on with its expansion policy as if the economy were in fact insulated.

Fortunately import prices were still below their pre-depression levels and the purchasing power of a given quantity of exports increased by 23 per cent between 1935 and 1937. Between 1937 and 1939 this purchasing power, or terms of trade, decreased by 8 per cent, but this still left it 13 per cent above the 1935 level.

However, it was soon to become apparent that insulation would require either unlimited overseas funds or irksome internal restraints.

In 1936 the value of exports had moved above the 1929 level for the first time, when £57 million was earned. The next year earnings increased to £67 million but fell away again to £58 million in 1938 and 1939. Meantime imports, stimulated by increased internal purchasing power and augmented by extra orders of heavy equipment for the public works programme, had increased rapidly up to 1937. The rapid mechanisation of farming also added to the expansion of import requirements.

Imports and exports are shown in Chart 5. Export receipts have to pay for a substantial unfavourable balance of invisible items, such as debt servicing, as well as to meet the cost of imports.

Chart 5

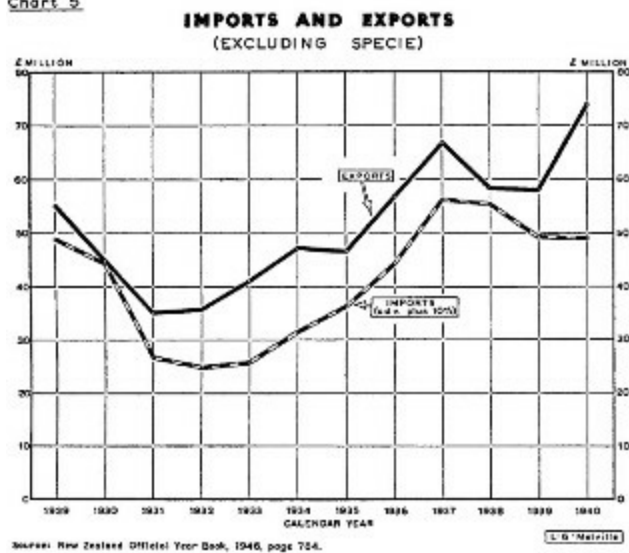


Chart 5
IMPORTS AND EXPORTS
(EXCLUDING SPECIE)

When export earnings fell in 1938, imports remained high, leading to successive falls in the overseas reserves of the banks. This influence, combined with some flight of capital as a result of a loss of public confidence, resulted in the overseas reserves in December 1938 falling to the dangerously low level of under £7 million. The **Labour Party's** promise to insulate the New Zealand economy was now under a most exacting test. Disaster was avoided by resort to exchange and import controls at the end of 1938, but, even so, New Zealand entered the war with overseas reserves still at an extremely low level. They were only £16 million in December 1938, £20 million below their December 1935 level. Changes in net overseas assets of the banks are shown in Chart 6.

Chart 6

NET OVERSEAS ASSETS OF THE BANKS

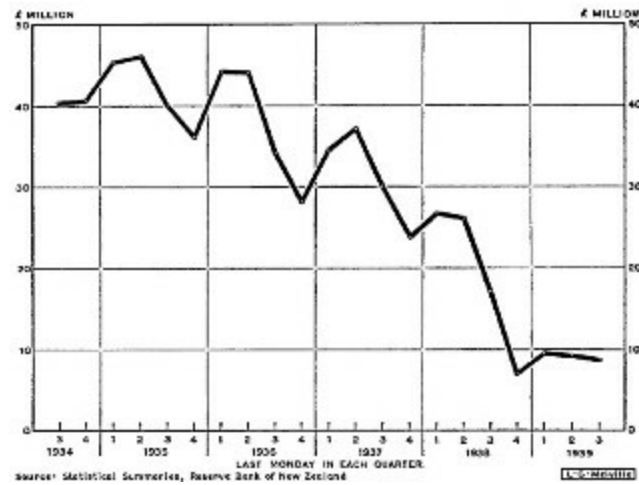


Chart 6

NET OVERSEAS ASSETS OF THE BANKS

Import controls were a direct restriction on the freedom of action of a considerable economic group and must have seemed a high price for them to pay for the attempt at insulation. But the **Labour Party** seems to have been tolerant to this form of control. ¹ It offered secure protection for the rapid expansion of manufacturing which would be essential if the production base of the economy was to become broad enough to make insulation practicable.

Whether the electors would have tolerated import controls was not really put to the test at this stage. Before there was another election, import controls, along with many other controls, were to become necessary to protect the war economy.

Insulation against overseas economic disturbances had not proved so easy. The country had been subjected to import restrictions and, even with these restrictions, there was still considerable danger of financial disaster in New Zealand's external relations. It may not be fair to say, as some have said, ² that the war saved the Labour Government from financial disaster externally, but it is certain that a very crucial testing period was avoided when war came and completely changed the influences on the external economy.

¹ **Some members had advocated it for many years.**

² ***NZPD*, Vol. 256, p. 446.**

WAR ECONOMY

DIVERSIFICATION OF THE ECONOMY

Diversification of the Economy

In the depression, factory production had fallen by 19 per cent while farm production remained comparatively stable. In fact 1932–33, which in many respects was the worst year of the depression, saw a sharp rise in farm production. Nevertheless there was, in the 1930s, a definite indication that it might not be too long before manufacturing overtook farming as New Zealand's major producer.

Manufacturing output made its first major recovery in 1934–35 when there was a 14 per cent increase over the previous year. In 1935–36 there was a further 9 per cent increase and in 1936–37 a 14 per cent increase. This brought the level of factory production to 53 per cent above 1931–32, which had been the lowest year in the depression, and to 30 per cent above the pre-depression level of 1928–29. After 1936–37 the rate of increase tapered off, with a 7 per cent rise in 1937–38 and 5 per cent rise in 1938–39. In the following year, aided no doubt by the exchange restrictions, which became effective in December 1938, and the supporting quota restrictions on imports, the increase in manufacturing production was 10 per cent.

Chart 7 shows changes in the volume of manufacturing output from pre-depression to pre-war years.

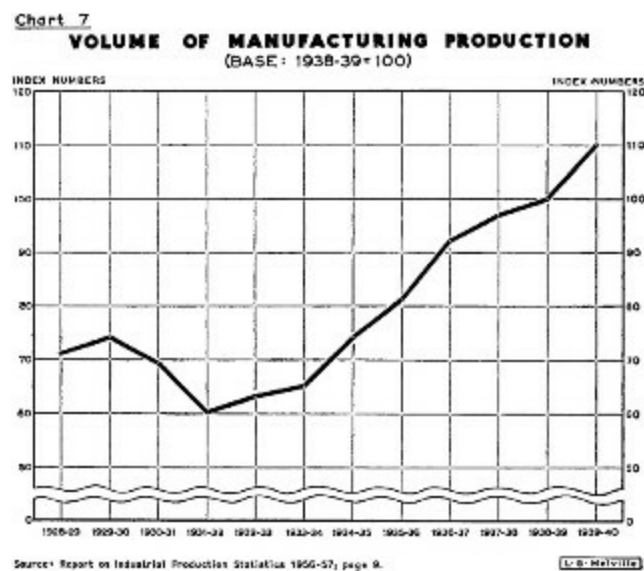


Chart 7
VOLUME OF MANUFACTURING PRODUCTION

In accordance with the Labour Government's declared policy of expanding production, a **Bureau of Industry** had been set up in 1937 to plan new industry. The Bureau discussed and was interested in varying degree in the establishment of a number of new industries. However, it is likely that the shelter given, from 1938, by import restrictions did much more than the Bureau towards the diversification of industry. It was Labour's intention to expand industries other than farming, in order to make New Zealand less dependent on overseas sales of a narrow range of farm products. Quantitative control of imports gave the opportunity for considerable direct influence in this direction.

Import controls were to give fertilisers and other farm requirements first priority, then capital equipment and raw materials for industry. However, there were many major consumer goods such as tea, sugar and petrol which it was politically inexpedient to cut back in time of peace. Thus the range of preferred items was very wide, and considerable cuts were necessary in less favoured items. Industry in New Zealand tended to fill the gaps. The result was certainly diversification, but often in a rather haphazard way.

Even before import controls, manufacturing was gathering strength and, in spite of the depression, output increased well over 50 per cent in

the decade preceding the war. The rapid upward movement of factory production in the late thirties—an increase of 36 per cent in the four years from 1935–36 to 1939–40—was no doubt assisted by other Labour policy measures which increased consumer spending and also made direct demands on the economy through the expansion of public works.

New Zealand entered the war with a wide range of manufacturing industries. Some were still in the embryo stage, but, faced with extra wartime demands, they were to fill many gaps left by the preoccupation of overseas suppliers with their own war requirements.

WAR ECONOMY

FINANCIAL DIFFICULTIES

Financial Difficulties

On the financial side, one of the outstanding influences of the pre-war period was the very sharp lesson which had been given during the depression on the pitfalls of allowing overseas indebtedness to rise too high. Falling export earnings in the depression years had resulted in overseas debt servicing absorbing well over a quarter of all export earnings. What remained was quite inadequate to pay for imports. Relief came in due course with rising export prices, assisted perhaps by depreciation of the currency in 1933. Borrowing continued on a reduced scale until 1933 and, in 1934, there were some repayments of overseas debt.

The lesson was that it was obviously bad policy for any Minister of Finance to allow overseas debt servicing to loom relatively so large again. This made a profound impression on the **Labour Party**, which was to show a marked reluctance to borrow overseas, even under stress of war conditions. Some economists and others have not taken the same lesson from the depression and there has been pressure for renewed overseas borrowing and quite sharp criticism, on occasions, when overseas indebtedness has been reduced. ¹

In accordance with its declared policy, the Labour Government nationalised the **Reserve Bank** in 1936, but there was not very much use of **Reserve Bank** credit until June 1938. Government net indebtedness to the banking system as a whole increased by less than £4 million between March 1935 and March 1938. However, in 1938–39, advances to the Government began to rise and Government indebtedness increased by nearly £18 million between March 1938 and March 1939. ²

Chart 8 shows Reserve Bank advances to the State and emphasises the rapid upsurge after the second quarter of 1938. Government

securities held by trading banks were also increasing.

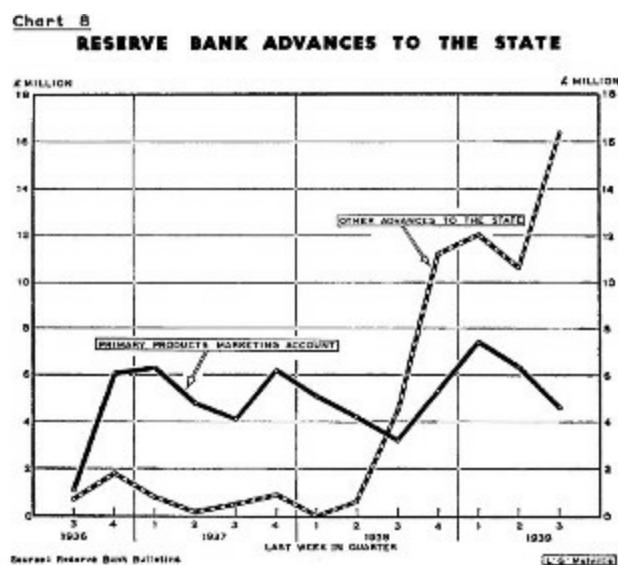


Chart 8
RESERVE BANK ADVANCES TO THE STATE

¹ NZPD, Vol. 273, p. 337. Also Vol. 282, p. 1686, and Vol. 292, p. 2108. As time passed and export prices rose, repetition of depression difficulties would naturally seem much more remote.

² Reserve Bank of New Zealand Bulletin, November 1959, p. 173.

As might have been expected, there was very considerable public criticism at the increasing use of bank credit by the Government. ¹ All sorts of national disasters were foretold. Some loss of public confidence certainly resulted, aided no doubt by the evidence of overseas difficulties offered by falling overseas reserves. There was some flight of capital from New Zealand, aggravating the overseas reserve situation. To bring the results nearer home, Post Office Savings Bank deposits fell sharply, cutting at an alternative source of government funds. In the two years from March 1938 to March 1940, withdrawals exceeded deposits by £8 million.

In 1939–40 Government indebtedness to the banking system increased by a further £12 million, but part of this sum was required for

war purposes.

¹ For some of the more sober criticism see *Evening Post* second leader, 13 March 1939, third leader, 31 March 1939, second leader, 26 April 1939, and leader of 1 May 1939.

WAR ECONOMY

RISING RETAIL PRICES

Rising Retail Prices

At the outbreak of war, retail prices were 25 per cent above their 1933 level and had been increasing steadily. After a first tentative increase of a little over 1 ½ per cent in 1934, annual price increases had been around 3 or 4 per cent, except for the increase of nearly 7 per cent in 1937 which was probably attributable in part to the general wage increases of the previous year. The rate of price increase was fast.

There were considerable inflationary influences on the economy, especially after the Labour Government commenced its legislative programme in 1936, but unemployment was being steadily reduced and New Zealand's production was expanding. In other words, a considerable portion of the extra spending potential was being absorbed by extra production and reduced unemployment, so it is a little surprising that the rate of price increase was so rapid.

In this context, however, it should be noted that, in 1939, retail prices had still not reached the level of the highest pre-depression year. In the 1920s prices had been relatively stable, fluctuating by only 4 per cent upwards or downwards, but between 1929 and 1933 they had dropped by a fifth. By 1939, after six successive years of rises, prices were still just a little below the average for the 1920s.

Chart 9 shows price changes between 1920 and 1939.

Chart 9

RETAIL PRICES - ALL GROUPS

INDEX NUMBERS - BASE FIRST QUARTER 1949 (= 1000)

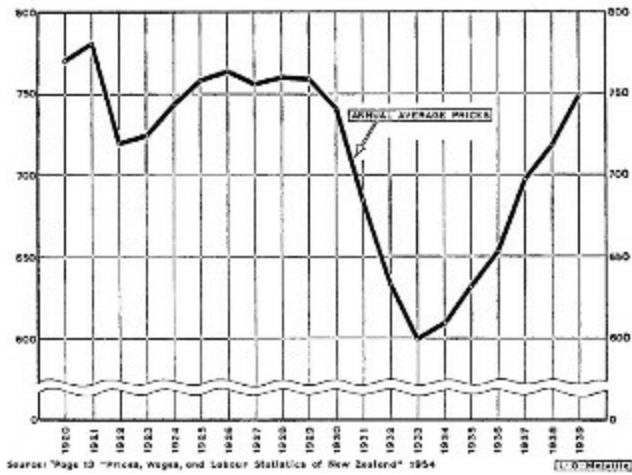


Chart 9

RETAIL PRICES - ALL GROUPS

INDEX NUMBERS - BASE FIRST QUARTER 1949 (= 1000)

WAR ECONOMY

LIVING STANDARDS RISE AND FALL

Living Standards Rise and Fall

What was happening to living standards while these momentous influences were changing the economy? Goods available increased steadily from 1931–32 to 1937–38 but then fell slightly under the influence of falling overseas earnings and import restrictions. However, goods supply part only of people's needs.

There is no comprehensive measure of living standards; all the statistician can provide is an approximate measure of the physical things which people use. These figures, taken on a per head basis, give some indication of potential living standards. The depression year 1931–32 stands out as a low point in the series and a good deal of the immediately following increase represents post-depression recovery.

One of the features of the depression period was that at the very time when overseas price changes were reducing the ability of New Zealand exports to purchase overseas manufactures, New Zealand's own production of manufactured goods was also drastically reduced. Expressed in 1938–39 prices, goods to the value of £116 million were available for use in New Zealand in the June year 1929–30. ¹ This was made up of £69 million which remained from local production after allowing for exports, together with £47 million worth of imported goods. Imports (again valued at 1938–39 prices) fell to £27 million in 1931–32 and, partly as a result of an £8 million fall in local production, goods remaining from local production after exports fell to £57 million. Thus a fall of £20 million from imports was accompanied by a fall from local production, and the volume of goods available for use in New Zealand fell staggeringly by 27 per cent in these two years.

Thereafter the volume of goods available for use in New Zealand increased slowly until 1933–34 and then rapidly until 1937–38. In the

next two years it fell once more, as a result of declining imports.

Chart 10 shows changes in the volume of goods available and also in goods available per head of population, and throws some light on the more material aspects of living standards. It is of interest that the 1929–30 volume available per head was not again reached until 1936–37.

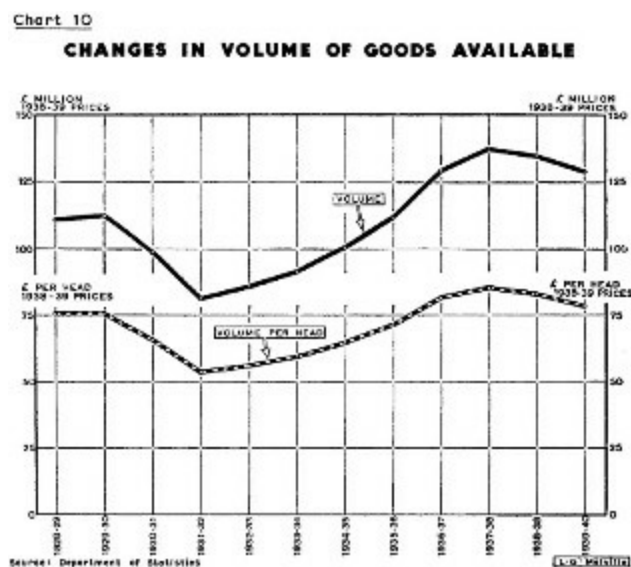


Chart 10
CHANGES IN VOLUME OF GOODS AVAILABLE

Goods available per head reached a low point in 1931–32 and then increased yearly, accelerating in the period 1934–35 to 1936–37, with a more moderate increase in 1937–38. However, overseas prices fell, and there was not sufficient insulation to prevent falling export earnings from pulling down living standards by 2 per cent in the following year. This was only a forerunner of more drastic cuts in living standards which would become necessary under war conditions.

¹ *New Zealand Official Yearbook*, 1945, p. 598.

WAR ECONOMY

PRE-WAR ECONOMIC CRISIS?

Pre-war Economic Crisis?

In forming judgments about the pre-war situation, proper weight must be given to the fall in export earnings in 1938, which was one of the causes leading to import restrictions. It is equally important not to overweight this influence. Export earnings averaged £57 million a year for the years 1935 to 1939 as compared with £41 million a year in the preceding five years, 1930 to 1934. This is hardly a fair comparison, as the latter five years included the depression. However, in the pre-depression years 1925 to 1929, export earnings had averaged £52 million. The average for the immediate pre-war period 1935 to 1939 was 10 per cent above this level and, in the conditions of the time, this cannot be regarded as an unsatisfactory result.

The year 1937, when export earnings reached nearly £67 million, was in fact an all-time record up to that point, and the year 1938, to whose waywardness the imposition of import controls has been attributed, was then the highest year of any on record, except 1937. Looking back, therefore, it is difficult to see how New Zealand could have got herself into such financial difficulty externally, unless she was pushing her internal resources too hard or building up an excessive money demand which was spilling over into importing.

The internal economy was not under extreme upward pressure. Numbers unemployed and in assisted employment were still as high as 19,000 at the outbreak of war. Although some economists at the time referred to this as full employment, war and post-war experience was to show quite clearly that full employment in New Zealand could bring the unemployment level down to hundreds rather than thousands. ¹

Certainly the economy was developing at an unaccustomed pace and lack of money was not being allowed to delay welfare provisions, public

works or housing. Naturally the resulting pressure of internal demand spread to imports. Then came the fall in export prices and the run down in reserves. If one is entitled

¹ See also

to distinguish between the two blades of a pair of shears, it was the extra importing rather than the level of export prices which caused the overseas exchange crisis.

With bank credit being extensively used internally, those who believed in more orthodox financial methods not unnaturally lost confidence in New Zealand's ability to remain solvent. This was brought sharply home to the Government by the flight of capital from New Zealand, and later by the difficulties Mr Nash had in 1939 in finding suitable funds in **London** to repay a maturing loan. So stringent were the repayment conditions Mr Nash was forced to accept that there was some doubt whether New Zealand would be able to meet them. A *Round Table* article said: ¹

‘The Minister of Finance (Mr Nash) during his recent visit to **London**, arranged that the £17,000,000 which falls due on January 1, 1940, would be reduced to £16,000,000 on due date, and the balance repaid in half-yearly sums amounting to £2,000,000 in 1940–41 and £3,500,000 in each of the four succeeding years, less any amounts the bond holders elect to convert. He also arranged a loan of £5,000,000 from the United Kingdom Government for defence and other public purposes; also an export credit of £4,000,000.

‘Although expressions of gratitude for the assistance given by the United Kingdom Government have been made in many quarters, serious doubts have been raised as to whether the temporary relief afforded will enable New Zealand to weather the financial storm into which she has sailed.

‘It is generally recognised that unless there is a sharp rise in the price of primary products, New Zealand will have to make a stern effort of national self-denial in order to meet the capital repayments and also find the £12,000,000 annually required to pay overseas interest, freights and other obligations....’

This chastening experience stiffened Labour's determination not to become further dependent on overseas capital and may have been in large measure responsible for the almost complete reliance on internal sources to finance New Zealand's war effort.

In its domestic policy the Labour Government had drawn extensively on bank credit, but, in terms of welfare provisions, new public works, extra housing and increases in production and employment, a very great deal had been done. These achievements justified, indeed required, some expansion in the monetary base of the economy, but the expansion seems to have been overdone. Even so, it is possible that New Zealand could have weathered the resulting financial storm. This was never really put to the test. War was declared the day before Mr Nash returned from his mission.

¹ *Round Table*, Vol. 117, December 1939, p. 226.

WAR ECONOMY

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WAR ECONOMY

THE NEED TO PREPARE

The Need to Prepare

THE outbreak of war, in September 1939, can hardly be said to have come as a surprise, nor was there very much doubt about the effects of a global war on the economy; but, when war was declared, New Zealand's economic preparations were very patchy indeed.

By 1935 **Hitler** had ceased to make any pretence of accepting the limits on rearmament imposed by the Treaty of **Versailles**. From then until 1939 the dictators of **Europe** needed to make only minor diplomatic gestures to other European powers in order to be able to do pretty much what they liked. The Rhineland was gobbled up in 1936, **Austria** in 1938, parts of **Czechoslovakia** in 1938 and 1939, **Albania** in 1939.

The allied nations, weakened by disarmament and by strong antimilitary feelings among their citizens, could protest, but without offering any effective resistance. Even at **Munich**, in September 1938, defiance, which was after all the only alternative to appeasement, could not have been backed by arms.

The appeasement at **Munich** stiffened the backs of the Allies and gave time to prepare for the final gesture of defiance to the aggressors when it was provoked by the invasion of **Poland** on 1 September 1939.

The writing was on the wall in 1935. It was there in great red letters in 1938. The Allies must ultimately stand firm or be trampled underfoot. Yet, in New Zealand, economic preparation still hung back.

For New Zealand, the threat of war came much closer than in 1914. **Japan** might support **Germany** and **Italy**. In that event New Zealand did not share **Britain's** confidence that there would still be no immediate danger of attack on **Australia** and New Zealand. Moreover there was a

strongly held view in New Zealand that war against Germany and Japan would entail a six months' break in overseas communications. ¹

How should New Zealand prepare her economy for war? She would continue to be the foremost supplier of food to the United Kingdom; in fact New Zealand supplies would become much more important to the United Kingdom if other sources were denied to her. If New Zealand were to join in the fighting, the needs of the armed services would make considerable demands on manpower and would probably leave industry with insufficient labour at a time when many branches of industry were required to expand production to sustain her allies. Allocation of labour to industry and the maintenance of a proper balance between production and military needs would require very careful planning.

Shipping and international trade seemed almost certain to be disrupted. This might be drastic and immediate in its effects on New Zealand if Japan entered the war, as she was expected to do. Nearly all New Zealand industries were dependent to varying degrees on supplies of materials and equipment from overseas, and a wide range of essential consumer goods had to be imported. Road transport and much industrial and farm equipment were powered by petrol or oil, which was available only from overseas sources. Reserve stocks should be accumulated.

Interference with shipping would also make it difficult for New Zealand to maintain the outward flow of her export commodities and a large portion of these commodities was perishable. Preparation for war should therefore make special arrangements for storage of these perishable commodities.

By 1938 it became apparent also that, even if communications were not cut, New Zealand could not depend upon United Kingdom suppliers for military equipment. New industries would have to be developed to fill the gap.

Everything pointed to the fact that economic planning for modern warfare would have to be far-reaching and comprehensive. In a

prolonged war the overall strain on manpower resources and finance would be unbearably heavy. Planning would have to visualise establishing new industries to fill supply gaps, diverting construction endeavours to military works and stepping up food production. To man these industries and to protect other essential industries, precautions would have to be taken against excessive depletion of manpower for military purposes. It might even be necessary to restrict the movement of the labour which remained.

The adequacy of reserves of raw materials and equipment might easily determine the length of time many industries could continue to operate, while perishable exports might go to waste if storage facilities were not considerably extended.

The magnitude and urgency of the economic tasks called for immediate-and decisive action.

¹ Wood, *Political and External Affairs*, pp. 73–4.

WAR ECONOMY

FAILURE TO PREPARE

Failure to Prepare

Decisive action in the pre-war years was directed to welfare provisions, public works and housing, rather than to preparation for war.

In fairness to the Labour Government, it should be said that, in its ranks, the view was strongly held that improvements in the welfare of the peoples of the world would remove a major cause of war. Those who were convinced of the rightness of this point of view and of the wrongness of military aggression, no doubt felt justified in delaying the diversion of New Zealand's efforts from provisions for welfare to preparations for war. Less sympathetically one might observe that a large number of members of the **Labour Party were pacifists by inclination and did not take sufficiently seriously the mounting evidence of planned aggression by **Germany, Italy, and Japan**. Be that as it may, the net effect was that suggestions to prepare met with a marked lack of Government enthusiasm.**

Combine this with the fact that New Zealanders in the early 1930s had their full share of the anti-military feelings ¹ which had done so much to weaken **Europe in its resistance to **Hitler**, and it is not surprising that active war preparations were delayed.**

By the time **Munich had brought home the inevitability of war as the only alternative to ultimate submission to the aggressor, there was a new barrier in the way of New Zealand's preparation for war. In 1938 and 1939 shortage of overseas funds made it inexpedient to build up adequate stocks of imported materials and equipment or to extend refrigerated storage space. By this time, also, **United Kingdom** firms were having difficulty in filling New Zealand orders for military equipment, because of the urgency of their own government's needs. The supply side of economic preparation had been left too late.**

On the manpower side more thinking had been done, but here frustrations were even greater. Pre-war official thinking tended to the view that some form of registration of manpower was essential.

¹ *Round Table*, Vol. 20, pp. 913–14 (1930); *NZPD*, Vol. 225, p. 303 (1930); *Round Table*, Vol. 25, p. 215 (1934).

But registration seemed inevitably to lead to compulsion and here long-established **Labour Party** policy stood in the way. The keynote of Labour policy on manpower requirements for war was that conscription of wealth would precede any conscription of men. It is not difficult to see that manpower planning would proceed haltingly when faced with this very determined viewpoint and, in fact, in spite of searching investigations and recommendations by the **Manpower Committee** of the **Organisation for National Security**, little positive action had been taken up to the outbreak of war.

In March 1939 the Prime Minister, Mr Savage, had warned of the need to ‘prepare for the worst, not only in defence along ordinary lines but in industrial development upon which the defence of the country will largely depend’, ¹ yet even in April 1939, after the Pacific Defence Conference in **Wellington**, he seems to have had little idea of the manpower strain war would bring. Probably he still thought of a small voluntary expeditionary force only. His ideas on home defence visualised a citizen army of men who would be citizens and soldiers at the same time ²—in marked contrast to the thousands of men who were in fact to be held in uniform in the armed forces in New Zealand while industry cried out for labour.

On a voluntary basis, the Territorial army was built up from 7100 in May 1938 to 10,400 a year later, and further increases were provided for, to bring it ‘within reasonable reach of its war establishment’, ³ but in spite of repeated recommendations from the **Manpower Committee** the Government would make no decision affecting labour for industry until after the outbreak of war.

Economic preparation for war left much to be desired. On the three vital issues of supplies of equipment and materials, refrigerated space for perishable exports and civilian manpower planning, there was considerable discussion and a flow of official recommendations, but no adequate government action was taken before war was declared. Yet the need for planning and action had been foreseen.

A [Manpower Committee](#) had been set up as an offshoot of the New Zealand Committee of Imperial Defence as early as 1934. In August 1936, in the debate in Parliament, Minister of Defence F. Jones said: ⁴

¹ **[Auckland Star](#), 22 March 1939.**

² **Wood, op. cit., p. 81.**

³ **Parliamentary Paper H-19, Annual Report of the Chief of the General Staff, p. 1.**

⁴ ***NZPD*, Vol. 246, p. 559.**

‘... A committee on which some twenty Government Departments are represented is investigating the problem of supplies in war—that is to say, supplies for the community at large, and not merely for armed forces. Some examples of their problems are supply of oil fuel and lubricants in war, including a rationing scheme and the provision of refrigerated space in the event of the interruption of export trade. If our export trade is disorganised, so far as beef, mutton, and lamb are concerned, we can stop killing for meat supplies; but we cannot stop the supply of butter. For this reason, a survey is being made of the refrigerating space, to see to what extent we could store butter until such time as trade was resumed between this country and the countries with which we trade. Other committees are being set up to deal with communications, cables, and wireless; another committee, to deal with manpower, and another with shipping and meteorological services.

Provision is being made in the Defence estimates for meteorological service, and we are trying to cooperate with [Australia](#) and another country in connection with this service....'

The pre-war period was characterised by awareness, discussion and recommendations for action but very little action. Yet in spite of Government inactivity, consideration of these matters in committee had been of value. Discussion and study had brought an awareness of problems which stood officials in good stead when war broke out, while Labour's policy of development and diversification of the economy, though not part of any plan for war, probably put New Zealand in a better condition to cope with problems of wartime production.

WAR ECONOMY

FACILITIES FOR PRE-WAR PLANNING

Facilities for Pre-war Planning

New Zealand had received the first reminder about the need for pre-war planning at the Imperial Conference in **London** in October 1930. Perhaps planning can be said to have started in October 1933 when the Prime Minister, George Forbes, announced a decision to form a New Zealand section of the Committee of Imperial Defence. The New Zealand committee had its first meeting in November 1933, but time passed without real action, and as late as March 1937 nothing had been achieved. At this stage a general scheme was approved and in May 1937 three bodies, the **Organisation for National Security**, the **Council of Defence** and the **Chiefs of Staff Committee**, being, respectively, the secretariat for co-ordinating preparations for war, the Cabinet sub-committee advising on those preparations, and the committee responsible for military co-ordination, were given a common secretary and the means were available for planning. Nevertheless there was still no great encouragement from the Government and certainly very little indication of its views on manpower or other problems in war.

In the course of 1938 the secretarial work connected with planning for war was gradually taken over by the departments likely to be concerned, but until 1939 the Government does not seem to have faced up to the necessity to prepare actively for war. Even then it was not willing to give any guide to policy on what would be the major wartime problem, the use of manpower.

Plans for action by all Government departments in the transition from war to peace were to be embodied in the War Book. As early as the Imperial Conference of 1930, attention was drawn to the fact that New Zealand had achieved nothing towards its War Book. The position became more pointed at the 1937 Imperial Conference. By this time a number of Commonwealth countries had made progress, but New

Zealand still lagged.

There were occasional Government statements of intention and calls for action, but, even by 1938, almost nothing had been accomplished. The first really effective work on the War Book was done in September 1938, the month of [Munich](#). But tension eased a little and the work slowed up again. It was not until July 1939 that the War Book was complete.

WAR ECONOMY

PRE-WAR MANPOWER PLANNING

Pre-war Manpower Planning

Pre-war manpower planning was associated with the **Manpower Committee**. This Committee was an offshoot of the New Zealand Committee of Imperial Defence, which was formed in November 1933 and was to change its name to **Organisation for National Security** in August 1936.

The **Manpower Committee** first met in June 1934, but does not appear to have worked under any pressure until 1939. There were in fact only twelve meetings of the Committee in the five years 1934 to 1938, compared with nineteen meetings in the first ten months of 1939, up to the time the Committee ceased to function in October.

Primarily the **Manpower Committee** was a channel for pre-war thinking about defence demands and industrial requirements for manpower in times of war. It was inter-departmental, with no direct representation of outside interests. The Committee was very conscious of the conflicts and shortages which would arise in the manpower field in the event of war. Many of its discussions and proposals envisaged far-reaching measures which would involve a major loss of freedom of choice for individuals in the labour force. Quite a substantial loss of freedom is inevitable under the demands of war, but the thinking of the **Manpower Committee** seems at times to have gone further than in fact proved necessary. In a report dated 30 January 1939 it said: ¹

‘It is the opinion of the Committee that a state of affairs must be envisaged in which the Government controls the Manpower of the Dominion, allotting men either to industries which have become more essential and which demand additional staff, or to the armed services for home defence (not for service overseas, which would be dealt with as an entirely separate problem). The Committee submit that the only point

which is really at issue is the time at which this control is applied.’

The **Council of Defence** was, however, not prepared to take so extreme a view at that time, and at no stage of the war did controls extend to all manpower. ²

¹ ONS 115, para. 5.

² Registration for work of national importance was ultimately required up to age 40 for women and 59 for men. See also pp. 99–101.

WAR ECONOMY

PROPOSALS FOR A NATIONAL REGISTER

Proposals for a National Register

The idea of complete and detailed Government direction of manpower led to consideration of a National Register. Here again thinking at times was fairly extreme, involving registration of every member of the population. Actually, by 1939, a fairly full listing of the population was involved in the issuing of Social Security levy books,³ although the information obtained for this purpose was not comprehensive enough to form a National Register as a basis for manpower direction. If there was to be a National Register it would therefore require an extension of the information obtained in the Social Security levy books,⁴ unless it was done as a separate undertaking. However, none of the Committee's suggestions received Government support, and it was driven to consider a voluntary register as an alternative, with a view to having any sort of register under way before war broke out.⁵ The Committee wanted this register to be started without delay, but in February 1939 the **Council of Defence** directed that no form of special register was required in peace.

The Labour Government's view was that, if conscription did turn out to be necessary, conscription of wealth should precede conscription of manpower. Suggestions that plans be prepared for direction of manpower or for a national register, which led to the same end, could make little or no progress against this firm stand.

By July 1939 the **Manpower Committee** had drafted a National Registration Act which, in the event of war, would provide for the registration of all males between the ages of 17 and 60 years and of all females between the ages of 17 and 55. This draft Act had been sent to the Law Draftsman by August 1939, but on the outbreak of war no action was taken to institute a system of national registration, and it was not until March 1940 that provision was made to extend the

information obtained from Social Security registrations in an attempt to provide the basis for a National Register. ¹

³ The Social Security Act 1938 provided for payment of a registration fee of 5s. on 1 April 1939, and thereafter quarterly for men over 20 years of age and annually for all others over 16 years of age. The registration fee was abolished in April 1946.

⁴ As was eventually done in March 1940.

⁵ Reiterated in ONS 120 of February 1939.

¹ Social Security Supplementary Regulations 1940.

WAR ECONOMY

RESERVED OCCUPATIONS AND ESSENTIAL INDUSTRIES

Reserved Occupations and Essential Industries

The **Manpower Committee** also concerned itself with the important precaution of working out a schedule of reserved occupations where, in the event of large-scale recruitment for the armed forces, men should be retained to protect the more essential industries against manpower depletion. While the needs of the fighting services would be paramount in times of war, it would also be essential that production be maintained at the highest possible level. The problem of scheduling reserved occupations was approached from this point of view.

It was realised that even in the early stages of a war, when enlistments might be entirely voluntary, there should be some protection against manpower depletion in key industries. After considerable discussion, the Committee recommended in February 1939 that the only form of control required in the initial stages of a war would be to indicate to a minimum of key occupations that men in these occupations would be best serving the national interest by remaining at work.

By May 1939 a list of the factories considered necessary for the production of essential commodities had been completed and, between May and August 1939, a schedule of reserved occupations was prepared. It was adopted by the **Council of Defence** in August 1939 with a view to its being communicated to recruiting officers. This schedule was effective. In the first month of war the classes of men included in the reserve list were not being accepted for service in any of the armed forces. Some early difficulties arose because the list of reserved occupations was treated as confidential, a requirement which made it impossible to advise physically fit men who were not accepted for service that they had been reserved for work in essential industries. However, the position was cleared to some extent in mid-September when the

Prime Minister stated that physically fit men who were not accepted for service could assume that they were regarded as being essential in their normal occupations. ¹

On the outbreak of war the [Manpower Committee](#) was for a short period reconstituted to include representation from secondary industries and local bodies. However, in October 1939 it held its last meeting and was superseded by the [Central Advisory Labour Council](#). On the new [Central Advisory Labour Council](#) were representatives of three major organisations which were established by Cabinet to deal with war conditions, namely the [Industrial Emergency Council](#), the [Primary Production Council](#) and the [Factory Advisory Committee](#).

The Minister of Manpower, referring to the [Central Advisory Labour Council](#), said: ²

‘The functions of the organisation are to inquire into and report to the Government on all matters affecting the utilization of man-power in the Dominion, with a view to expanding national resources to the full. An important part of the work will be to review constantly the possible effect of recruiting on industry, so that as the war progresses production can be maintained.’

¹ [War History Branch](#) narrative No. 48, p. 37.

² [Parliamentary Paper H-19 B](#), *Utilization of the Manpower of the Dominion*, statement by the Minister of Manpower, 1940, p. 1.

WAR ECONOMY

THE MANPOWER COMMITTEE'S ACHIEVEMENTS

The Manpower Committee's Achievements

The Manpower Committee served a useful purpose prior to the outbreak of war by providing facilities for thinking and discussion on the manpower problems which would arise under war conditions. Thus manpower problems could be handled more efficiently when they actually arose; but it is a sobering thought that comparatively few of the recommendations of the Committee were in fact implemented prior to or on the outbreak of war. The list of essential occupations and some draft acts seem to have been the only material products of the Committee's work which survived into the war period.

It is interesting to note that the rather drastic original recommendations of the Committee for a national register involving the registration of the entire population were whittled down in the actual event to the registration of particular occupations and age groups as required. ¹ The main reasons which seem to have emerged at the time were the difficulty in providing staff for a full-scale national register and the large amount of work which would be involved in keeping the register up to date because of population movements.

¹ When compulsion came, it was based initially on Social Security registration, but those in specified groups who did not receive a notice of registration were required to register. See also p. 100.

WAR ECONOMY

SUPPLY UNCERTAINTIES

Supply Uncertainties

The possibility of disruption in overseas communications required urgent attention to questions of continuity of supply in war. Retail sales to consumers, materials for manufacturing, equipment for industry and construction materials, all had a high import content and could be seriously affected by any impediment to the flow of imported supplies. Twenty-seven per cent of all New Zealand consumption of goods and services was imported and 40 per cent of capital formation. Many manufacturing industries were entirely dependent on imports for their continual operation and the average import content of New Zealand manufactured goods was nearly one-third. Even farming was over 3 per cent directly dependent on imports, and this dependence rose as high as 10 per cent when the import requirements of those who serviced farming were taken into account. ²

As far back as 1933 the New Zealand Committee of Imperial Defence had recognised the importance of early planning for supply in wartime and had formed various supply sub-committees. In 1936, when the Committee of Imperial Defence became the **Organisation for National Security, a **National Supply Council** was set up. This Council and its sub-committees made reports on specific commodities, and tabulated information resulting from a questionnaire sent to major factories. Responses to the questionnaire were, however, not good enough to provide really reliable information. The special staff engaged on this work also maintained contact with manufacturers and others, encouraging them to use substitutes and to stockpile essential raw materials.**

By the time of the **Munich crisis, in September 1938, recommendations had been made for the necessary controls over supply in the event of war, and draft regulations had been prepared. The**

Department of Industries and Commerce, which had been represented on all the Supply Committees, was given the job of organising and co-ordinating a larger scale investigation of the supply position. A further questionnaire was sent to specific industries and produced a rather better range of information, though once again the response does not seem to have been sufficient to give a really comprehensive view of requirements. ¹

In April 1939 the Pacific Defence Conference was held in **Wellington**, attended by representatives of the **United Kingdom**, **Australia** and New Zealand. All aspects of co-ordination in the event of war and co-operation in defence problems in peacetime were fully discussed.

By this time the main impediment to the accumulation of reserve stocks was the critically low level of New Zealand's overseas funds. In 1938 the effects of lower export earnings, high imports and some flight of capital had run down overseas reserves rapidly, leading to the imposition of import controls and a very tight rein on the use of overseas funds.

In May 1939 Cabinet decided that funds and special import licences should be made available to certain firms and Government departments to enable them to purchase and hold stocks as a reserve in case of war. A sum of £512,000 was earmarked for this purpose. It was pitifully inadequate, but, in agreeing to the proposition, the **Reserve Bank** added, 'owing however to the possibility of an acute shortage of sterling I must request that the **Reserve Bank** be consulted before any further large purchases are sanctioned involving the remittance of funds overseas.' ²

It is possible that any major commitment of overseas funds would have been similarly tagged, but it is still surprising that such a small sum for war preparations did not have a higher priority by May 1939.

Recognition of the need for effective action came too late to enable reserves to be greatly expanded, for the war was only a few months

away. Mr **L. J. Schmitt**, Secretary of Supply, wrote later to the Minister, ‘... the outbreak of war on September 3rd 1939 caught us in the middle of a steady expansion of reserve stocks of many items, which would have been purchased in September and October but were never imported because of the outbreak of war.’³

² These are actually post-war estimates for 1952–53 (**Baker** ‘Patterns and Relationships in the N.Z. Economy’, *Accountants’ Journal*, January 1959). Because of the increasing relative importance of domestic manufacturing, they probably give low estimates of import contents in the pre-war years.

¹ War History narrative 90/1, Ministry of Supply, Vol. 1, p. 21.

² Reply of Governor of **Reserve Bank** of 28 June 1939 to application by the acting Minister of Finance of 28 June—on Industries and Commerce file 55/7. See also p. 44.

³ Secretary of Supply to Minister of Supply, 22 August 1940. On Industries and Commerce file 55/7.

WAR ECONOMY

STOCKS AT THE OUTBREAK OF WAR 1

Stocks at the Outbreak of War ¹

In spite of all the delays and hindrances, stocks of some vital raw materials sufficient to last for several months had arrived in New Zealand when war broke out and had been taken into reserve.

Among the major items in reserve were 2000 tons of corrugated roofing iron valued at £60,000. This was imported by the **Ministry of Works and specially stored at **Trentham**. A similar quantity of other stocks was in the country, but the total was below normal holdings.**

The import of woolpacks, corn sacks and other jute goods was facilitated by waiving import licences and by specially arranged sterling funds. As a result the stock position was good when war began.

Fertilisers in a primary producing country are vital items in peace or war. Some reserves were laid down. About 80,000 tons of rock phosphate was stored at the eight phosphate works, equivalent to about a quarter of a year's supply. Sulphur and other chemicals to the value of £100,000 were also stored at works throughout the country, and probably represented on average rather less than a quarter's supply.

In anticipation of difficulties in obtaining supplies of cream of tartar ² the principle importers were encouraged to import 200 tons at a cost of £20,000. Arrangements were also made to import and store 15,000 tons of raw sugar valued at £150,000.

The importing of 7000 tons of gypsum rock, essential in the manufacture of cement and plaster, was financed by several cement companies. This was equivalent to about six months' requirements.

The Government arranged that a reserve of rubber and associated chemicals to the value of £35,000 should be laid down, the Government

meeting the cost of interest on £25,000. However, because of high ruling prices just prior to the war, only half the reserve had been established before war began and no further purchases were made until about mid-1940.

In the year prior to the outbreak of war the **Wheat Committee**, on the advice of the **National Supply Committee**, took precautions to ensure the maintenance of milling and baking facilities in the event of emergency. Arrangements were made with the flour millers to carry additional stocks of wheat at no cost to the Government. Wheat could be bought in **Australia** during 1939 at the low

¹ See also pp. 111- 17.

² The raw materials came from **Germany, France, Italy** and **Spain**.

price of 2s. 4d. per bushel ¹ and it was intended to import as much as could be shipped and handled. This programme was almost completed when war broke out, with the result that the millers had sufficient wheat in store until the end of May 1940 without using any of the 1940 crop.

New Zealand was completely dependent on overseas sources for petrol. Moreover, at the outbreak of war her supplies depended partly on cargoes carried in foreign-owned tankers, the British tanker fleet being unable to supply all New Zealand's needs and meet other requirements.

From 1934 to 1939 the annual consumption of petrol in New Zealand had risen by nearly two-thirds from 64 million gallons to just on 100 million gallons, due mainly to the rapid increase in the number of private motor cars. Requirements for private cars accounted for approximately 53 per cent of all petrol imports in 1939. Because of this high demand it was normal to carry fairly substantial stocks, ranging between 25 and 30 million gallons.

Stocks at the outbreak of war totalled 28 million gallons, equivalent to 31/2 months' usage, which was not much more than a normal stockholding. With expected extra war demands and future supplies uncertain, it is therefore not surprising that petrol was the first commodity to be rationed, control coming into force on the day war was declared.

It must not be imagined from these special arrangements that stocks generally were adequate when war broke out. Shortages of overseas funds had more probably brought the overall level of stocks to well below normal requirements, which for many industries would be a quarter or more of annual usage.

For the most part any specific precautions against a break in supplies were made by importers or manufacturers themselves acting in their own interests and often fighting against the effect of the Government's import controls. Many of the above items are just interesting exceptions and, even where special arrangements were made, they were not always sufficient to bring stocks back to normal levels after they had been run down by importing difficulties.

¹ The price of 2s. 4d. per bushel is taken from War History narrative 90/2. The section on wheat and flour control was 'written in **War History Branch** and corrected and supplemented by **R. McPherson**, General Manager, **Wheat Committee**' The price of wheat from **Australia** was 4s. 4d. per bushel from November 1937 to March 1938, but then fell progressively to 2s. 6d. in November 1938 and by August 1939 had receded to 2s. 1d. per bushel.— *Commonwealth of Australia Official Yearbook*, 1940, p. 365.

WAR ECONOMY

THE NEED FOR NEW INDUSTRIES

The Need for New Industries

To meet the needs for war production, it would not be enough to safeguard supplies to existing industries. Wartime pressures would require the rapid emergence of new industries. Most important was the possibility that New Zealand, in the event of war, might have to manufacture her own munitions, because of the preoccupation of traditional suppliers with their own country's requirements. Even in 1938, British manufacturers were in some cases not able to fulfil New Zealand orders for war materials.

The manufacture of munitions in New Zealand would however require the accumulation of reserves of iron and steel, while suitable equipment would have to be purchased and installed. Not much was accomplished before the outbreak of war, even though it had become apparent by early 1939 that military equipment in New Zealand was inadequate for mobilisation and that the deficiency could not be made good from overseas.

The Defence Conference in April 1939 recommended that New Zealand's capacity to make military equipment should be explored,¹ but still no direct action was taken.

To meet wartime changes in demand, new methods might be necessary in the processing of New Zealand exports. The possibility of a sudden order for canned foods for the **United Kingdom** or for forces serving overseas was visualised, and tins to the value of £42,000, together with a smaller quantity of lead, was purchased and stored for this purpose.

New industries would also be necessary to provide essential civilian requirements in cases where overseas supplies might be cut back in time

of war. This would apply particularly to metal-working industries which, overseas, were likely to be preoccupied with war supplies. Little direct action was taken, though the Government's policy was to encourage manufacturing, and New Zealand industry probably became more versatile under the influence of diversification brought about by pre-war import restrictions.

¹ Wood, op. cit., p. 87.

WAR ECONOMY

PERISHABLE EXPORTS

Perishable Exports

Three problems would arise with regard to perishable commodities in the event of war: the need to secure maximum supplies for the **United Kingdom**, the need for more orderly marketing ² to secure equitable distribution of food which would probably be in short supply in the **United Kingdom**, and the need for extra storage capacity in New Zealand against the possibility of shipping delays.

Preparations for bulk purchasing by the **United Kingdom** of exportable surpluses of food were well advanced when war broke out. The steps which were taken are conveniently summarised in a report by Walter Nash as Minister of Marketing: ¹

'Pre-war action in the United Kingdom

'In the **United Kingdom** the Food (Defence Plans) Department, then a Department of the Board of Trade (but later on to become the Ministry of Food), was set up in 1936. In June of that year, ² Dominion Ministers then being present in **London** for the Imperial Conference, the opportunity was taken by the United Kingdom Government to make a first approach to the question of possible war-time purchases of supplies from New Zealand. It was indicated that, in the event of war, the United Kingdom Government might become the sole purchaser of imported foodstuffs, and in this connection meat and dairy produce was specifically mentioned.

'At this time it was also indicated that fresh fruit would not be especially controlled, and would therefore have to take its chance in the ordinary way.

'Again, in August of 1938, at which time the crisis over

Czechoslovakia was developing, the United Kingdom Government submitted through the New Zealand High Commissioner a more detailed memorandum outlining plans for food control in the event of war—this envisaged the bulk purchase of meat and dairy produce on long term contracts. This memorandum also stated (with special reference to New Zealand) that “since the **New Zealand Government** now acts as the sole exporter of butter and cheese and the New Zealand Meat Producers' Board regulates the shipments of meat, it would be a simple matter to inaugurate both contracts in the event of war”.

‘Again, as in the case of the preliminary discussions at the time of the Imperial Conference, questions of prices and quantities were left for detailed negotiation should hostilities actually commence.

‘This August 1938 memorandum, having been examined by the **New Zealand Government**, was accepted in principle by the Prime Minister on the 28th February 1939, and the United Kingdom Government was advised to this effect.

‘In June 1939, early after the arrival of the Minister of Finance in **London** and when the European situation was again deteriorating, discussions were resumed at the instance of the Food (Defence Plans) Department in the **United Kingdom**. On this occasion it was again reiterated that dairy produce and meat must take priority in any direct purchase from New Zealand, whilst fresh fruit could be exported as long as shipping space was available. Tentative discussions were also held between Board of Trade Officials and the Minister concerning the possible purchase of New Zealand's wool clip, although this subject could only be broadly discussed as a possibility at that time.

‘Pre-war action in New Zealand

‘Simultaneously with these various pre-war conferences which were taking place in **London**, general plans were under discussion in New Zealand for the purpose of ensuring the efficient and prompt export of the Dominion's exportable surplus of primary products to the **United**

Kingdom in the event of war. These discussions were commenced as far back as 1937 within the general framework of the **Organisation for National Security**, which had been set up by this time. It was agreed that the Marketing Department could well form the nucleus of whatever organisation would be required in the event of an outbreak of war and the bulk purchase of primary products by the United Kingdom Government. The Dominion was therefore already well equipped to meet the emergency and to commence detailed negotiations immediately war did commence on 3rd September.

‘Commencement of Negotiations

‘Pre-war discussions between the **United Kingdom** and the New Zealand Governments by way of exchange of cables and by personal conferences in **London** between the Minister of Marketing and the Ministry of Food had already prepared the ground for such immediate action as would be necessary to take in regard to the acquisition of New Zealand products by the United Kingdom Government in the event of war being declared. After the outbreak of war the United Kingdom Government cabled through the New Zealand High Commissioner (on the 5th September 1939, in the case of meat, and on the 6th September in the case of dairy-produce) stating that they were prepared to buy New Zealand's “entire exportable surplus for twelve months of frozen beef, mutton, lamb, and edible offals” and “export surplus, being shipments up to the 31st July 1940” of butter and cheese. In reply the **New Zealand Government** cabled within twenty-four hours stating their willingness to consider an f.o.b. purchase of the total surplus of these products by the United Kingdom Government.’

This was an example of pre-war economic planning which was immediately effective when war broke out. The state of preparations for extra storage of perishable produce to meet possible shipping delays was in marked contrast.

² Except for dairy products, where bulk purchase arrangements

already existed as part of the guaranteed price scheme.

¹ Parliamentary Paper H-30 B, 1940, p. 2.

² Sic. 1937. The Imperial Conference was in May and June 1937.

WAR ECONOMY

[SECTION]

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Preparations for bulk purchasing by the **United Kingdom** of exportable surpluses of food were well advanced when war broke out. The steps which were taken are conveniently summarised in a report by Walter Nash as Minister of Marketing: ¹

WAR ECONOMY

'PRE-WAR ACTION IN THE UNITED KINGDOM

'Pre-war action in the United Kingdom

'In the United Kingdom the Food (Defence Plans) Department, then a Department of the Board of Trade (but later on to become the Ministry of Food), was set up in 1936. In June of that year, ² Dominion Ministers then being present in London for the Imperial Conference, the opportunity was taken by the United Kingdom Government to make a first approach to the question of possible war-time purchases of supplies from New Zealand. It was indicated that, in the event of war, the United Kingdom Government might become the sole purchaser of imported foodstuffs, and in this connection meat and dairy produce was specifically mentioned.

'At this time it was also indicated that fresh fruit would not be especially controlled, and would therefore have to take its chance in the ordinary way.

'Again, in August of 1938, at which time the crisis over Czechoslovakia was developing, the United Kingdom Government submitted through the New Zealand High Commissioner a more detailed memorandum outlining plans for food control in the event of war—this envisaged the bulk purchase of meat and dairy produce on long term contracts. This memorandum also stated (with special reference to New Zealand) that “since the New Zealand Government now acts as the sole exporter of butter and cheese and the New Zealand Meat Producers' Board regulates the shipments of meat, it would be a simple matter to inaugurate both contracts in the event of war”.

'Again, as in the case of the preliminary discussions at the time of the Imperial Conference, questions of prices and quantities were left for detailed negotiation should hostilities actually commence.

‘This August 1938 memorandum, having been examined by the [New Zealand Government](#), was accepted in principle by the Prime Minister on the 28th February 1939, and the United Kingdom Government was advised to this effect.

‘In June 1939, early after the arrival of the Minister of Finance in [London](#) and when the European situation was again deteriorating, discussions were resumed at the instance of the Food (Defence Plans) Department in the [United Kingdom](#). On this occasion it was again reiterated that dairy produce and meat must take priority in any direct purchase from New Zealand, whilst fresh fruit could be exported as long as shipping space was available. Tentative discussions were also held between Board of Trade Officials and the Minister concerning the possible purchase of New Zealand's wool clip, although this subject could only be broadly discussed as a possibility at that time.

WAR ECONOMY

'PRE-WAR ACTION IN NEW ZEALAND

'Pre-war action in New Zealand

'Simultaneously with these various pre-war conferences which were taking place in London, general plans were under discussion in New Zealand for the purpose of ensuring the efficient and prompt export of the Dominion's exportable surplus of primary products to the United Kingdom in the event of war. These discussions were commenced as far back as 1937 within the general framework of the Organisation for National Security, which had been set up by this time. It was agreed that the Marketing Department could well form the nucleus of whatever organisation would be required in the event of an outbreak of war and the bulk purchase of primary products by the United Kingdom Government. The Dominion was therefore already well equipped to meet the emergency and to commence detailed negotiations immediately war did commence on 3rd September.

WAR ECONOMY

'COMMENCEMENT OF NEGOTIATIONS

'Commencement of Negotiations

'Pre-war discussions between the United Kingdom and the New Zealand Governments by way of exchange of cables and by personal conferences in London between the Minister of Marketing and the Ministry of Food had already prepared the ground for such immediate action as would be necessary to take in regard to the acquisition of New Zealand products by the United Kingdom Government in the event of war being declared. After the outbreak of war the United Kingdom Government cabled through the New Zealand High Commissioner (on the 5th September 1939, in the case of meat, and on the 6th September in the case of dairy-produce) stating that they were prepared to buy New Zealand's "entire exportable surplus for twelve months of frozen beef, mutton, lamb, and edible offals" and "export surplus, being shipments up to the 31st July 1940" of butter and cheese. In reply the New Zealand Government cabled within twenty-four hours stating their willingness to consider an f.o.b. purchase of the total surplus of these products by the United Kingdom Government.'

This was an example of pre-war economic planning which was immediately effective when war broke out. The state of preparations for extra storage of perishable produce to meet possible shipping delays was in marked contrast.

WAR ECONOMY

COOL STORAGE INADEQUATE

Cool Storage Inadequate

The most urgent need, in the event of shipping delays, would be for refrigerated storage, and this was fully realised when Defence Minister **Hon. F. Jones** made his statement in Parliament in August 1936. ¹

Very little was achieved before the war to increase storage facilities for perishable exports. Surveys were made and a subcommittee of the Supply Committee of the **Organisation for National Security** went so far as to recommend that meat companies be compelled to increase their refrigerated space to provide for at least 60 per cent of their annual kill, and that the Government should import equipment to enable still further increases to be made. It appears however that, apart from some discussions with companies which may have led to very limited extensions of storage space, no further action was taken before war broke out.

One writer, A. A. Ross, throws an interesting slant on the reasons for inactivity in extending cool-storage facilities. ² He says:

‘Preparations were made for some years before 1939 to safeguard the country in the event of war. An organisation known as the **Organisation for National Security** (O.N.S.) was established to make all necessary preparations against any contingency arising out of a war. Some sections (the term used here to describe committees and sub-committees) of this organisation performed very valuable work indeed, such as the expansion of cool-storage and cold-storage facilities. Separate sections were in charge of separate industries and groups of industries.... To some extent the work of O.N.S. was stultified by a natural reluctance on the part of the Government to undertake any preparations which called for heavy expenditure, and most

¹ NZPD, Vol. 246, p. 553. See also extract on p. 31.

² A. A. Ross, in *Wartime Agriculture in Australia and New Zealand, 1939–50*, Crawford *et al.* and Ross, p. 253. Ross, previously Research Officer in the New Zealand **Department of Agriculture**, wrote as one of a team of authors, by arrangement with the Food Research Institute of **Stanford University**.

preparations sooner or later involved this. This reluctance may have been due to the difficult financial position of New Zealand shortly before the war, when the sterling balances in the **United Kingdom** were at a very low level. Any preparations would have involved spending some of these low reserve funds. There is evidence too that the possibility of a war was heavily discounted, and on this account very few people were prepared to co-operate in making preparations.

‘Some have challenged the allegation that the Government discounted the possibility of war particularly after the **Munich** crisis of September 1938. The reason for stating here that war was not officially considered to be imminent is that a large number of very sensible suggestions and recommendations went forward from the Primary Industries Section of O.N.S. (a section which dealt with food and agricultural planning), but the majority of these recommendations were rejected outright. It was claimed that the proposals, if carried out, involved the expenditure of overseas funds (which was correct) and that such expenditure was not considered to be both essential and immediate. For instance, such commodities as cork and piping for additional refrigerated storage space could not be imported because the necessary permits could not be obtained from the Exchange Control authorities. The recommendations of many other sections of O.N.S. besides the Primary Industries section were also treated in this manner.’

Ross's work has been criticised, but there is no doubt a good deal of truth in what he writes. Certainly some quite independent information points in the same direction: for example, we have noted that, even as

late as May 1939, when a sum of only a little over half a million pounds was earmarked for special import funds to build up reserve stocks, the **Reserve Bank** took alarm and asked to be consulted 'before any further large purchases are sanctioned involving the remittance of funds overseas.' ¹

If the Government was aware of the danger of war, as it seems to have been, it is surprising that economic preparation for war ranked so low amongst import priorities. Or was this a case of political expedience triumphing over prudence?

Whatever the reasons, very little had been done to expand cool storage facilities by the outbreak of war. Discussions with meat companies have already been mentioned. ² They were largely ineffective. By 23 August 1939, the following circular letter to

¹ See p. 37.

² p. 43.

companies had been drafted. It would, no doubt, be effective if followed up, but instructions to circulate it were dated 30 August, four days before New Zealand declared war.

Office of the Minister of Agriculture,
Wellington, N.Z.
23rd August 1939

Dear Sirs,

COOL STORAGE SPACE: MEAT EXPORT

For some time past the position of cool storage at Meat Export slaughterhouses has been giving me some concern. At the beginning of this year my Department carried out a survey of available storage space, and the analysis of this information shows wide variation of cool storage

efficiency as between works. As you are aware, the Slaughtering and Inspection Act, 1908, gives me power to refuse the renewal of a meat export slaughterhouse licence if I am of the opinion that the business of the meat export slaughterhouse is being carried out in a manner contrary to the public interest. I considered the position so grave that I have conferred with my colleagues in Cabinet to ascertain whether I should exercise my powers in the direction of requiring a minimum capacity at each works, or at each group of works owned by one company, where such works are reasonably contiguous to one another. After full consideration of the position Cabinet passed the following resolution:

'Meat companies to be notified immediately that a condition of their meat export licence shall be the provision of cool storage space of a minimum of 60%, this capacity being based on the measurement factors used by the [Department of Agriculture](#). Where a company owns more than one works in one locality, space may be counted over all works as a unit. The provision of storage space must carry with it the obligation to provide efficient freezing equipment: provision of this space and of the necessary equipment to be the obligation of the company concerned.'

In terms of this resolution I wish to notify you that the renewal of your meat export slaughterhouse licence is to be determined in conformity with the terms of Cabinet resolution.

On the 18th of May you were supplied with an analysis of cool storage space at your works. You will therefore be in a position to judge whether this condition requires any action on your part. If such is the case I would be glad of your immediate cooperation in the direction of formulating plans for submission to my Department so that as far as possible the cool storage position for the forthcoming season will be brought up to a satisfactory state. It is recognised that certain alterations may have taken place since the collection of information at the beginning of the year, or that certain adjustments may be required in respect thereof, and where any doubt exists you should immediately communicate with the Director General of the [Department of](#)

Agriculture so that the position may be reviewed and your obligations defined. In other words, it is intended that each company's position shall be treated on its merits in the light of the present situation.

I might state that the question of sterling funds required to enable you to import piping, condensers, insulations, etc. has been given consideration, and wherever possible the aim should be to indent through **United Kingdom** firms so that the minimum of inconvenience will be occasioned in the earmarking of sterling funds.

I shall be glad if you will acknowledge receipt of this advice, and indicate the steps which you are taking to meet the requirements thereof.

MINISTER OF AGRICULTURE

The circular letter to meat companies was presumably signed and despatched in this form. ¹ The extra storage space became available for the 1940–41 season. ²

It was very fortunate that there was no serious stoppage of shipping in the early months of the war.

¹ This copy appears on Industries and Commerce file 54/15/1.

² See also p.185.

WAR ECONOMY

POWER DEVELOPMENT NEGLECTED

Power Development Neglected

Another obvious difficulty in war would be to maintain an adequate supply of power to industry, especially if the inflow of petrol and oil were restricted. In spite of this, the development of New Zealand's considerable potential of hydro-electric power proceeded very slowly in the pre-war period and in fact, up to 1938, expenditure on hydro-electric development was below what it had been during the depression. This lack of foresight may have been in large measure due to over-optimistic reports on the capacity of the existing equipment to meet expected electric power requirements.

The first offender seems to have been the **National Expenditure Commission** of the depression, which said in July 1932:

'...we are definitely of opinion that the present stage of development in the matter of hydro-electric power is sufficient for the needs of the Dominion for many years to come; and, moreover, in view of the uncertainty as to what will prove to be the cheapest form of power development in the future, any move for the commencement of further works, whether by the State or by local authorities, should be strenuously opposed.'¹

Even as late as 1936 the **Electric Power Board and Supply Authorities Association** said, '...it appears that the necessity for developing an entirely new (hydro-electric) scheme is remote'.²

It is not surprising that only £500,000 was spent on hydro-electric development in 1936–37 and £700,000 in 1937–38. The following year expenditure rose to over £1 million, but it was already too late for new developments to be ready for the early war years.

As a result of this delayed action New Zealand had electric power

restrictions for about two-thirds of the war period. Because wartime and immediate post-war development was hampered by shortages of equipment, she accumulated a backlog of unsatisfied power requirements which she could not overtake and satisfy in full until 1959. This was a major blot on New Zealand's record of pre-war preparations.

¹ Parliamentary Paper B-4 A, Final Report of the **National Expenditure Commission**, 1932, p. 164.

² Quoted in Parliament, *NZPD*, Vol. 273, p. 55. See also p. 428.

WAR ECONOMY

EARTHMOVING EQUIPMENT

Earthmoving Equipment

In the pre-war years the Labour Government expanded public works as a means of boosting the economy and providing full-time work for those previously unemployed; but it would be quite wrong to imagine that public works expansion, as spearheaded by Minister of Works Robert Semple, had the absorption of spare labour as its only objective. On the contrary, expansion of public works in this period was characterised by the extensive use of labour-saving equipment. Heavy earthmoving equipment was imported and extensively used on public works projects. In fact Government imports of mechanical equipment contributed to pre-war shortages of overseas funds.

In the event, these imports, though not motivated by the threat of war, proved to be one of the most effective war preparations which could have been made. Without this heavy earthmoving equipment, wartime construction of airports, military camps and other defence works would have been seriously hampered.

Even pre-war, defence works were competing with highway construction for the use of heavy equipment. A speech by Semple in Parliament in July 1939 ¹ lists some of the projects and gives an impression of the vitality he had by that time instilled into public works:

‘...I am going to show tonight that we have saved the Dominion tens of thousands of pounds, and that we are giving services that would not have been available for many years to come had we clung to the old method of construction. I shall name one or two of those jobs and I shall ask honourable gentlemen opposite whether they would stop those jobs. We are building a military aerodrome at **Whenuapai, near **Auckland**, and it is being constructed under military advice given us by Wing-Commander Cochrane, ² who was on loan to the **New Zealand****

Government from the British Government for two years. He is an expert at his job. The job covers one square mile and involves the shifting of 1,100,000 yards of material. The essence of the contract is speed. The job has to be completed as quickly as possible, and the task has fallen to my lot. With the use of machines it will take eight months and a half, and will cost £81,700. Under the old method it would have taken two hundred and fifty men four years to do the job, and the cost would have been £272,000.

‘... Next year we shall be holding our centennial celebrations, and we are hoping that thousands of people will visit this city. Of the two approaches to this city one was a positive death-trap—forty-six dangerous bends on a narrow road leading to the Capital city of New Zealand.... This Government is engaged on the job of making it safer, and it is a mighty big job to construct a 60 foot highway through the hills, some of them 160 feet high. The shifting of 450,000 yards of rock is no small undertaking. Under the old fashioned methods it would have taken four years to accomplish, at a cost of £225,000. I have undertaken to do the work in nine months, and at the present time we are well up to schedule, so the job will be completed and the road will be paved before Christmas. There will be a highway 60 foot wide where six months ago there were hills from 130 to 160 ft. high, and the total cost of the road will amount to no more than £80,000. At Paraparaumu we are to build an emergency-landing ground for aeroplanes, both military and civil. Rongotai Aerodrome is not always a first class aerodrome, and so it is necessary to have this emergency landing ground adjacent to the city.

‘... At Paraparaumu there are 403,000 yards of earth to be shifted, and this will be done by machines in three months, at a cost of £25,000. By hand labour it would take two hundred and fifty men fourteen months, and would cost £101,000....

‘... Let me give some idea of the **Rangitata** scheme, and of the smaller schemes, and the results obtained. The Rangitata Race is 50 ft. wide, 10 ft. deep, and forty-two miles long. It is designed to irrigate 420,000 acres, and also to generate 30,000 horse-power of electric

energy during the winter months. At the end of the canal we are building a hydro-electric station that will generate that amount of current, so that in winter, when the load is at its peak in the **South Island** and the farmers do not need the water, we will be able to use that water to generate power for the whole of the **South Island** because it will be coupled up with the whole of our main supplies. Had that job been undertaken under the old system it would have taken the same number of men that we employ now seventy-five years to do the job! The existing generation of farmers would be dead, and the new generation would have dropped dead when they got their first water bill....We are shifting upwards of 7,000 yards a day digging that canal with machines. There is no record in Australasia or in any other part of the world that can surpass that. If the Ngahauranga Gorge is completed in nine months, that, too, will constitute a world record....'

Truly stirring words. The Gorge road and the coastal road from Paremata to **Paekakariki** were both opened in November 1939, vastly improving access to the capital city in time for the Wellington Centennial Exhibition and, incidentally, in time to ease the burden of wartime transport.

¹ *NZPD*, Vol. 254, pp. 202–4.

² Later Air Chief Marshal Sir Ralph Cochrane.

WAR ECONOMY

ASSESSMENT OF PRE-WAR ECONOMIC PLANNING

Assessment of Pre-war Economic Planning

New Zealand's pre-war economic planning was characterised by considerable discussion and many recommendations but very little action. However, in the event no great economic harm resulted from this lack of preparedness.

The greatest barriers to action were shortages of overseas funds on the supply side and the Labour Government's refusal to consider any form of compulsion, or anything which might lead to compulsion, on the manpower side.

In the event, the supply situation was saved by the fact that the threatened entry of **Japan did not immediately eventuate. There was no long break in overseas communications. If there had been, many industries would have come to a standstill for lack of materials, and storage would have been quite inadequate to cope with supplies of perishable foodstuffs which would have piled up in New Zealand. In the short run, fortune had favoured the inactive. In the longer run, most of the preparations which had not been made under peace conditions now had to be made under the more difficult conditions of war.**

On the other hand, some pre-war plans went smoothly into action on the outbreak of war. Petrol rationing and the bulk purchase arrangements for foodstuffs for the **United Kingdom were outstanding examples.**

It was fortunate that, in the few years preceding the war, public works expenditure had been stepped up. This extra pre-war capital formation no doubt left the country in a better situation to carry on later when the demands of war made it impossible to concentrate on normal public works programmes. The possession of heavy earthmoving

equipment, imported for public works projects, also speeded completion of defence works.

Labour's pre-war tendency towards direct economic controls helped to ease the economic change from peace to war. There were in existence at the outbreak of war a number of organisations which were used, or which could easily be used, to keep the economy under control during circumstances which must put a considerable strain upon it. For example, the **Price Investigation Tribunal** was available to watch and fix prices, import selection was in operation and the Internal and External Marketing Departments were well-established, if much-criticised, organisations.

Import controls, which would be necessary to secure priority of transport for scarce supplies in war, were, for other reasons, already in existence. Moreover, industry had branched into new activities under the protection of import restrictions and, though perhaps no more economically sound overall as a result, was more diversified and better able to readjust to cope with the wide variety of new demands which war was to bring.

SOME NOTEWORTHY PRE-WAR EVENTS

<i>Year Overseas</i>	<i>Economic and Political Events in New Zealand</i>	<i>New Zealand Preparation for a possible War Effort</i>
1930 Imperial Conference, in October, gives reminder of need for defence planning.	Substantial fall in export earnings.	
1931	Depressed economy — general reduction of 10 per cent in wages and salaries.	
1932 Ottawa Conference on Commonwealth trade, in July.	National Expenditure Commission appointed, in January.	

National Expenditure Adjustment Act makes reductions in pensions, salaries of State employees, and in rents, interest rates and other fixed charges.

Most difficult year of depression.

1933 Hitler becomes German Chancellor, in January.

Exchange rate changed to £NZ125 = £100 sterling, in January.

Decision in October to form NZ Committee of Imperial Defence.

Reserve Bank of NZ Act passed in November.

1934 UK Government puts quotas on certain meat imports.

Best prices for wool since 1929–30. Partial restoration of wage and pension cuts.

Manpower Committee set up as off-shoot of NZ Committee of Imperial Defence.

1935 Hitler repudiates the Treaty of Versailles, in March.

Substantial increase in manufacturing activity.

Italians invade Abyssinia, in October.

Partial restoration of salaries and wage cuts of public servants.

Agreement between UK and NZ on meat exports.

Labour Government elected, in November.

1936 German and Italian intervention in Spanish Civil war.

Expansion of public works undertakings.

NZ Committee of Imperial Defence becomes Organisation for National Security. National Supply Committee set up.

Germany reoccupies the Rhineland, in March.

Restoration of cuts in pensions and State employees' salaries.

Guaranteed price for dairy

In Defence debate in

produce announced in Budget statement.

the House, Defence Minister Jones outlines need to prepare for possibility of war.

Forty-hour week becomes operative.

Comprehensive Government housing scheme announced.

First State housing units become available.

Discussions with UK Government on bulk purchase in event of war.

1937 Imperial Conference in London, in June, points the need to prepare for war.

Record year for export earnings.

Organisation for National Security, Council of Defence, and Chiefs of Staff Committee given a common secretary.

1938 German take-over of Austria, in March.

Extensive imports of heavy earth-moving machinery.

UK Government memorandum on bulk purchases in event of war.

German demands on Czechoslovakia.

Social Security Act passed in September.

Spurt in preparation of War Book in September.

The Munich Agreement, in September.

UK manufacturers unable to fulfil NZ orders for military equipment.

Use of heavy earthmoving equipment for aerodrome construction.

Falls in prices of NZ exports.

Import and exchange controls in December.

Overseas assets fall to £NZ6.8 million.

1939 British and

Commencement of benefits Savage in March

French
'guarantee' to
Poland, in
March.
Germans
complete the
occupation of
Czechoslovakia.

under the Social Security
Act in April.

Nash visits London to
discuss difficult loan
conversions.

Price Investigation
Tribunal set up in June.

warns of need to
'prepare for the
worst'.

Military equipment
inadequate for
mobilisation.

Aerodrome
construction speeded
up.

Pacific Defence
Conference held in
Wellington, in April.
Warning of need for
reserve supplies.

Government decision,
in May, to make
import licences
available for purchase
of reserve stocks of
strategic
commodities.

Manpower Committee,
in June,
unsuccessfully asks
for a Manpower
Register.

National Service
Registration Act
drafted, in July.

Schedule of Reserved
Occupations prepared,
in August.

First effective action
to increase cool
storage capacity
initiated, in August.

Germans invade
Poland, 1
September.

Declaration of
war, 3
September.

WAR ECONOMY

CHAPTER 3 – FROM PEACE TO WAR

CHAPTER 3

From Peace to War

The First Few Days of War

NEW ZEALAND declared war just before midnight on 3 September 1939 and ‘in the early hours of Monday morning, 4 September, the **Organisation for National Security** and its associates had the strenuous, but rather satisfying, task of operating the newly finished War Book’. ¹

Already a state of emergency had been proclaimed on 1 September and the first group of emergency regulations had been made on 1 and 2 September. Included with the most urgent military and security powers were economic measures to prevent profiteering. ²

A quick succession of regulations followed, giving the Government wide powers of economic control. Emphasis is placed in this volume on regulations of particular economic significance. A more general picture of the flush of emergency regulations is given by Professor **F. L. W. Wood** in a companion volume. ³

Of the War Book and its use, Wood writes: ‘Under test the machine worked well. There were enough loose ends to provide a moral for the future: contingencies inadequately provided for on the one hand, and on the other, the inveterate tendency of Ministers and departments to work independently of one another and to appeal direct to cabinet, thus imperilling a hard-won co-ordination.’ ⁴

While pre-war economic action was, in many directions, inadequate, the very short time needed to make a wide range of regulations affecting the whole economy was a measure of the

¹ Wood, *Political and External Affairs*, p. 97.

² The Price Stabilisation Emergency Regulations 1939.

³ *The New Zealand People at War: Political and External Affairs.*

⁴ *Ibid.*, p. 97.

effectiveness of pre-war economic thinking. In fact some excellent inter-departmental committee work had been done in assessing economic requirements in the event of war, but pre-war action was held back, particularly on the manpower and supply sides, by the Government's failure to give any decisive lead.

It has been said that, 'In its simplest and most abstract terms the general economic problem of war is one of securing the necessary supplies'.¹ This applied with particular emphasis to New Zealand, where wartime disruption of shipping might easily accentuate supply difficulties. If there was to be a complete shipping blockage, as many people expected, the measures taken to safeguard existing stocks of vital materials would determine the number of weeks the economy could continue to function without a major disruption. Control of supply was, therefore, a very high priority, and on 4 September it received attention.² Provision was made for Controllers, under a Minister of Supply, with wide powers to restrict or direct the movement of goods. On the same date oil fuel, one of the most vital commodities in war or peace, was rationed,³ while detailed supply arrangements were made for sugar, wheat and flour.

Powers over supply and use of materials were also to be given to other Controllers, whose primary interest was in production in specified groups of industries—a dual control of supply which was inevitably to lead at times to confusion and clashes.

New Zealand was to suffer wartime shortages which were in many cases aggravated by failure to make early or adequate provision before the war for the accumulation of vital reserves. On the other hand, in those cases where stocks had been built up, the relief provided by their

judicious wartime use amply justified any pre-war sacrifices involved.

¹ Elliott and Hall, *The British Commonwealth at War*, p. 257.

² The Supply Control Emergency Regulations 1939.

³ The Oil Fuel Emergency Regulations 1939.

Controls over Production

It was correctly anticipated that, in war, New Zealand production would have an increasingly important part to play, both in supplying a larger proportion of New Zealand needs and in meeting the increasing demand of the [United Kingdom](#) for New Zealand food supplies. Moreover, government orders for war materials and war construction would require precedence over civilian needs. This precedence could not, without runaway inflation, be obtained by attempting to outbid civilian demand. More direct measures would be necessary.

Sweeping powers to control manufacturing production were taken in the Factory Emergency Regulations 1939, and, on 12 September, overall control of building work was passed to a Building Controller. ¹ Three days later, provision was made for control of primary industries by a Primary Industries Controller. ²

Thus, within two weeks of the outbreak of war, the Government had most of the administrative powers it needed to put production on to a war footing.

¹ The Building Emergency Regulations 1939.

² The Primary Industries Emergency Regulations 1939.

Recruitment of men for the armed services was, at this stage, voluntary. On 8 September plans were announced for a special force of men prepared to serve in any part of the world. 'Recruiting for the first batch of 6600 men began on 12 September, and within a week almost 12,000 men had volunteered.'³

The only interference with voluntary enlistment was the use of the list of reserved occupations which had been compiled by the **Manpower Committee before the war. This list was supplied to recruiting officers, with the intention that men engaged in these reserved occupations should not be accepted for the armed forces.**

In the early stages, withdrawal of men for military service did not require other than voluntary measures of adjustment in civilian employment. Men could be replaced without too much difficulty. Unemployed persons were taken back into production, some less urgent work was cut out, and more overtime was worked. Women were used to an increasing extent in industry.

While unemployed labour and other unused resources were available, the need for extra output for war purposes could be met largely by drawing them into production. There was, as yet, no call for any serious sacrifice of civilian consumption to make extra resources available for war purposes, and no need for the Government to be too restrictive about the use of labour for civilian production.

The process of voluntary adjustments continued throughout the first two years of the war, but by the end of 1941 the cumulative withdrawal of some 30 per cent of the total male working population had exhausted unused labour reserves. It was becoming increasingly difficult to replace men recruited for the armed services or to divert further manpower and resources to war production.

³ Wood, p. 98.

The Need for Co-ordination

The first flush of wartime regulations was made under the Public Safety Conservation Act 1932, which had been passed as a direct result of the Hawke's Bay earthquake in 1931. This act was not entirely adequate for a war emergency and the Emergency Regulations Act 1939 was passed on 14 September as a wartime measure to provide the authority for further regulations. This act, as amended, was to be the basis for a host of wartime regulations, and would then remain in force and be used long after the emergency which gave rise to it had passed. ¹

The regulations were intended primarily to give Controllers and Departments ample powers to act in the interests of the war effort. However, the more power individuals had the more difficult it became to prevent them from acting at cross purposes. It was soon apparent that a strong co-ordinating authority was needed.

To meet this need, a **War Cabinet** was proposed. There was considerable disagreement over the form it should take. In spite of the obvious need for better co-ordination of military and economic policies, questions of production, finance and manpower were to be excluded from the functions of the **War Cabinet** as it was originally envisaged. ² However, under pressure of considerable criticism, and no doubt moved by military disasters in **France** to seek more effective measures, the Government extended the scope of **War Cabinet's** functions. Peter Fraser, ³ in July 1940, when he announced its formation, said that the scope of the **War Cabinet** 'was not to be restricted to the services but it was also to make decisions concerning "production for war purposes, war finance requirements, emergency regulations so far as they apply to the war effort and generally to implement the policy of Parliament in relation to New Zealand's participation in the war".'⁴

The **War Cabinet** included two members of the Opposition, Gordon Coates and Adam Hamilton, with Defence Minister Fred Jones, Finance

Minister Walter Nash and Prime Minister Peter Fraser. It was to co-exist with Cabinet and with an advisory body, the War Council. ⁵

¹ Amending regulations were still being made in 1956 (1956/137). It was still being re-enacted to protect existing regulations as late as 1959.

² Wood, p. 140.

³ Savage died on 27 March 1940 and Fraser became Prime Minister.

⁴ Wood, p. 141.

⁵ The War Council was to include the Prime Minister and five other ministers, with nine members representing employers, workers, farmers, returned servicemen, and other groups. The Opposition did not accept an invitation to nominate three members.

Powers to Control Individuals

However strong the patriotism of the people, it would obviously have been impossible to meet the extensive wartime demands on the New Zealand economy without some degree of overall economic planning, leading to various forms of direct control. Wartime controls followed closely on the heels of the very definite pre-war statements of the Labour Government stressing its intention to conscript wealth before men. It is interesting to see whether this had any effect on the form they took.

Considering the Government's attitude to conscription, it was only to be expected that the early regulations would not contemplate direction of men or women. When the time for such action came, the Emergency Regulations Act of September 1939, though very sweeping in

its powers, was not found powerful enough to enable the Government to conscript men. It was not until May 1940 that it was strengthened by the Emergency Regulations Amendment Act, which gave complete powers to control the individual as well as his property as 'necessary or expedient' for the war effort.

The **Labour Party's** opposition to conscription was deep-rooted and, even when this amending act was under discussion in Parliament, some members still hoped it would not be necessary to conscript men. But ultimately men were conscripted and wealth was not, except to the extent that much of the cost of war was met by taxation, and owners of productive resources could be required to undertake defence work.

Full control of manpower would involve the completion of a national register. The national register itself was seen as a possible threat to the freedom of the individual. The Government had refused to authorise it before the war and was still most reluctant to do so. Even when it became essential to have some form of register for specified age groups as they became eligible for conscription, the job was done piecemeal. Registration was, for the most part, restricted to those age groups which were immediately required. ¹

This rather halting approach to the problem was no doubt made workable by the fact that registration had been required for Social Security purposes since September 1938. The Social Security registration could be used as a check on those responding to wartime registration orders. ²

¹ See also pp. 99– 101.

² See also p. 100.

The powers necessary to impose conscription for the armed services were taken under the National Service Emergency Regulations in June 1940 and the first ballot was held in October 1940.

The same regulations made it possible for the Minister of National Service to direct any person over 16 years of age to perform any non-military service necessary for the war effort. However, this latter power was still not used, and it needed the outbreak of war with **Japan, in December 1941, to enforce action on industrial mobilisation. Manpower direction into industry commenced in January 1942. ¹**

There is no doubt whatever that the Labour Government had been very firm in its intention to conscript wealth before men, but in the circumstances as they emerged, such a policy would probably have been quite impossible to administer. Conscription of men was doggedly resisted, but ultimately was forced on the Government, partly because of the obvious unfairness of allowing men in New Zealand to please themselves whether they contributed to the war effort while large numbers of their fellow New Zealanders were engaged in actual fighting overseas, and partly because it became quite impossible, without conscription, to find sufficient men for the forces and for essential industries.

Failure to conscript wealth before conscripting men was probably a bitter disappointment to many Labour supporters. Some drew comfort from the measures the Government did take; for example, Mr James Roberts, President of the **Labour Party, said at the **Labour Party Conference in June 1940:** ² ‘The only objection they ³ ever had to conscription was when they were called upon to defend their country and the economic agency and the property of the country were not being utilized in the interests of the nation. In New Zealand the Government had now taken control of all property and it must be used in the interests of the country. The Government had given a pledge that no profits must be made out of the extra efforts of the people of New Zealand.’ The Government by no means took control of all property. Legally it did take intensive powers to direct the use of most productive resources. Some impression of the extent to which these powers were used, and of the possibilities of making high rates of profit from war contracts and other work, are discussed in following chapters,**

particularly in

Chapter 13. The reader may prefer to suspend judgment as to whether wealth was conscripted until he has read

¹ Power was taken in an amendment to the National Service Emergency Regulations dated 13 January 1942.

² *Standard*, 6 June 1940.

³ 'The Labour and Socialist Movements of the world'.

There is no doubt that the Government considered the full implications of conscription of wealth before abandoning it. Conscription of wealth would, if carried as far as some of its advocates wanted, mean Government ownership, or at least control, of all the means of production. Wartime experience was to show that, in some industries, higher outputs could be obtained without Government ownership. Achievement of wartime production targets often involved using new methods and working under high pressure. Many state employees were capable, given the opportunity, of rising to such heights, but usually the detailed and rigid controls associated with state employment restricted them so much that they were unable to do so. ¹ The fact of the matter was that, where achievement of difficult targets was absolutely vital to the war effort, cost-plus arrangements and other systems of stimulating private enterprise, inequitable as they were, probably offered the only hope of success. ²

Even presupposing that there was a strong body of opinion within the Labour Government in favour of ownership of the means of production, this was politically an extremely controversial issue and one which it was not desirable to fight out during the course of a major war. Later experience has shown the New Zealand **Labour Party** to be moderate in its intentions to nationalise the economy and quite willing to concede that, for a wide range of industrial undertakings, private enterprise can often get better results, given a reasonable measure of competition.

Keith Sinclair sums up very well when he says:

‘Slumps and wars alike have led to further centralization of power. The Second World War, as in many other countries, encouraged what was already the chief tendency of the Labour Government, and speeded the progress towards a “planned economy” via “price control” and “stabilization”. Broadcasting, internal airways, the linen flax industry, were added to the long list of state monopolies; but, in general, the Government contented itself with control over credit and marketing and made no attempt to nationalize production.’³

Though some changes to state ownership were made, private ownership and the profit motive remained predominant throughout the war, and in fact were given extra emphasis, in many cases, as the only means to get difficult and urgent assignments completed in time.

¹ For example, some of the difficulties associated with the linen flax industry were of this nature. (See p. 217.)

² See also

³ Sinclair, *A History of New Zealand*, p. 267.

Import Controls

One of the strongest weapons to control the use of resources and the direction of expansion of industry was already available to the Government before war broke out, and could easily be used to encourage war industry or to discourage non-essential industry under war conditions. This was the system of quantitative controls over imports which had been introduced in 1938.

The Import Control Regulations 1938 were designed primarily to conserve overseas funds; but if imports were to be restricted, choices had to be made. For example, it was decided to make special provisions for imports of essential raw materials, so that the effort to reduce expenditure on overseas purchases would not adversely affect New Zealand industry. A special committee was set up within the **Industries and Commerce Department to recommend to the Comptroller of Customs the action to be taken on applications for import licences relating to supplies of equipment and materials for New Zealand industry.**

The committee was in a unique position to implement the Government's industrial policy, having as one of its aims the promotion of manufacture in New Zealand, where this would save overseas funds and where it was considered that the expansion of local industry could be carried out on an efficient basis. A general indication of the committee's functions as seen through Industries and Commerce eyes is given in the following extract: ¹

'... In December, 1938, there were gazetted regulations providing for the control of importations into New Zealand. Apart from the question of limiting the importations of various commodities for general economic

reasons, the operation of these regulations was intended to enable scientific selection of imports in order to provide for a balanced development and expansion of manufacturing industries in New Zealand. The system under the import-control policy provided for the making of application for import licences by manufacturers and general importers.

‘To ensure that manufacturers would be able to obtain adequate supplies of raw materials and new and additional forms of plant, machinery, and equipment, etc., the **Industries Committee** was constituted to examine and make recommendations regarding the applications lodged in respect of manufacturing industries in our Dominion, and to act generally in this regard in an advisory capacity to the Customs Department. The **Industries Committee** met representative groups covering over one hundred industries and divisions of industries, and the general scope for economic development and expansion in manufacturing industries was closely investigated. As a result of the Committee's efforts, considerable assistance has been given to enable manufacturers in New Zealand to increase the production required to meet the market demands for various commodities in respect of which the importations of finished products were reduced or prohibited.

‘In addition, proposals were examined for the establishment in New Zealand of manufacturing units representing large overseas manufacturers whose products were previously available to the public only through import channels. The prospects for the success of the policy have been very bright, and already a number of new industries have been established or are in the process of being established in New Zealand; and considerable expansion has occurred in industries already in existence in New Zealand. Apart from the development of their production in lines already manufactured here, they have in many cases engaged in the manufacture of new lines previously imported.’

After the outbreak of war and when the supply position deteriorated, some change in emphasis naturally occurred. When goods were available for the ordering, control over imports could be used as a means of developing industries making munitions and other war supplies and

discouraging industries not regarded as essential to the war effort. But imports of many essential materials were soon restricted by their scarcity rather than by shortage of funds. The emphasis then changed to procurement at all costs rather than to an examination of the sterling position and its effects on ability to import. In the circumstances the initiative changed to some extent and the Commissioner of Supply, rather than the Comptroller of Customs or the Industries Committee, tended to make decisions on the importation of goods.

¹ Parliamentary Paper H-44, Department of Industries and Commerce, Report for 1939, p. 20.

Influences on the Direction of Industrial Development

As early as 1936 an Industrial Efficiency Act had been passed to give the Government power to guide the development of industry. However, until quantitative controls over imports became effective in 1938, there was in fact little the Government could do to change the direction of industrial expansion. At this stage it became possible to influence the direction of expansion by keeping a tighter restriction on imports of materials used by industries whose expansion it was desired to discourage, and by making it easier to import materials used by industries it was desired to encourage. In the same way, development of a manufacturing industry could be encouraged by making it difficult to import finished goods of that industry but easy to import its raw materials. This sort of influence on the direction of expansion has always been associated to a greater or less degree with the use of import controls.

Under war conditions, emergency regulations gave powers to controllers to guide the rate and direction of expansion of manufacturing, and of primary production and building. There was also some selective protection of industries in the lists of reserved

occupations which were issued to recruiting officers in the first weeks of war. The intention was that persons in essential industries should not be accepted for the armed forces.

In the early years of war this latter was a rather negative kind of control. Losses to the armed forces could often be made good if the industry was strong enough to compete on the labour market.

The powers given to industry controllers were seldom used to apply controls directly to the production targets of firms, and it was supply which soon became the controlling influence for nonessential industries. This type of control intensified as shipping difficulties and the diversion of overseas production to the making of war equipment led to serious shortages of materials. As supplies became inadequate to meet the demands of essential industries, complete restrictions were placed on the use of materials for some specified purposes. Controls over the use of building materials in particular became very stringent, and severely restricted private construction or even maintenance work.

Controls over supply remained the only really effective means of influencing the rate and direction of growth of industry until the time came for the Government to take power to direct industrial labour. At that stage, control over manpower gave another powerful influence over production.

These types of influence were not always sufficient to free resources for essential works. The Government itself tended to face supply and labour difficulties. To get certain Government work done for war purposes it was necessary to divert considerable resources from other uses. This could be done either by taking direct controls sufficient to forbid the use of resources for certain purposes, or by offering a higher reward for the use of resources than could be paid by non-essential users. This latter process tended to be inflationary, but we find it used, along with direct restrictions on the non-essential use of resources. It was not sufficient just to free resources for essential uses. Adequate incentives were also necessary if war production was to meet difficult targets. ¹

¹ Not to mention the need for a supporting fiscal and monetary policy.

Rationing of Consumption Goods

There was very little rationing of consumption goods in the first two years of war. Motorists' supplies were an exception. Petrol was rationed from the outbreak of war. After a brief period of confusion in which some people tried to circumvent the rationing and lay in reserve supplies, coupons were issued to petrol users a fortnight after the outbreak of war. The distribution of rubber tyres was controlled from December 1941, most going to essential users.

Food rationing was avoided until April 1942. ² There had been some panic buying of groceries in the early days of war. The following report from **Christchurch** appeared in a **Wellington** daily: ³

‘People who have been buying groceries well in excess of their normal requirements have led city grocers to adopt restrictions. In future they will sell only four pounds of sugar, one pound of tea, seven pounds of flour at a time. To avoid multiple purchases at different shops, many stores will serve only their regular customers. To counter requests for twenty-five pound or fifty pound bags of flour, they will in future buy 200 pound sacks and pre-packet in seven pound containers.

‘A city grocer told a reporter this morning that his business this week had been about double the normal. The main requirements by some customers was sugar, tea and flour, and big orders were being put in for tinned fish and fruit. Shop attendants who attempted to restrain customers were bullied into accepting orders, he declared. He pointed out that hoarding was both unnecessary and unfair to other customers who bought normally and the trade was forced to make restrictions.’

The grocers' reaction was sufficient to save the day at this stage. Most people behaved sensibly, though there were some cases of hoarding

of a few non-perishable lines. As various groceries became short, many retailers went to the trouble to distribute them as fairly as possible and the need for ration coupons was postponed until 1942.

² Sugar was the first item to be rationed, on 27 April 1942.

³ *Dominion*, 8 September 1939.

Marketing

Arrangements by the **United Kingdom** to buy New Zealand farm produce in bulk and wartime plans for more orderly marketing of scarce commodities in New Zealand were facilitated by the existence at the outbreak of war of an experienced Marketing Department.

The introduction of the guaranteed price for dairy products would not have been feasible without controlled marketing arrangements. The Government had decided to achieve this by itself entering into the field of marketing, and accordingly the Primary Products Marketing Act 1936 had made provision for the Government to buy in these products at fixed prices and to control their sale and distribution. The Primary Products Marketing Department was set up for this purpose.

The Act gave power to the Department to market any primary product, but in the early years its function was limited to the control of marketing of dairy produce so that the guaranteed price scheme could be put into effect.

Within a few days of the outbreak of war, agreement was reached on the arrangements, which had already been discussed, for the United Kingdom Government to purchase New Zealand's exportable surplus of meat, wool, butter and cheese. A special New Zealand purchasing agency was needed and the Marketing Amendment Act 1939 ¹ provided the necessary machinery for the Department to deal with meat and wool and other products on similar lines to those already in operation for dairy

produce. The Act changed the Department's name to the Marketing Department, and its functions were extended so that it could deal with any specified goods instead of with primary products only.

No bulk purchase arrangement was made for fruits. The United Kingdom Government regarded these as comparatively low priority food items, which could be done without when shipping was scarce. It became apparent that war conditions would probably lead to the loss of most of the overseas market for apples and pears. In the circumstances the **New Zealand Government** undertook to purchase the entire crop of graded fruit for the 1939–40 season at agreed prices. As anticipated, available shipping space had to be conserved for more essential commodities and very little fruit could be sent overseas.

¹ Issued 7 October 1939.

There was a short postponement of the full impact of the **United Kingdom's** decision in the first wartime season and, in 1940, rather more than half the normal quantity of fruit was exported. However, from 1941 to 1945 less than one per cent of normal exports could be sent. The disposal of crops of apples and pears within New Zealand became a major internal marketing undertaking. ¹

Chart 11 gives an impression of the effect of the United Kingdom Government's decision to treat fruits as a low priority food item.

Chart 11

EXPORTS OF APPLES AND PEARS

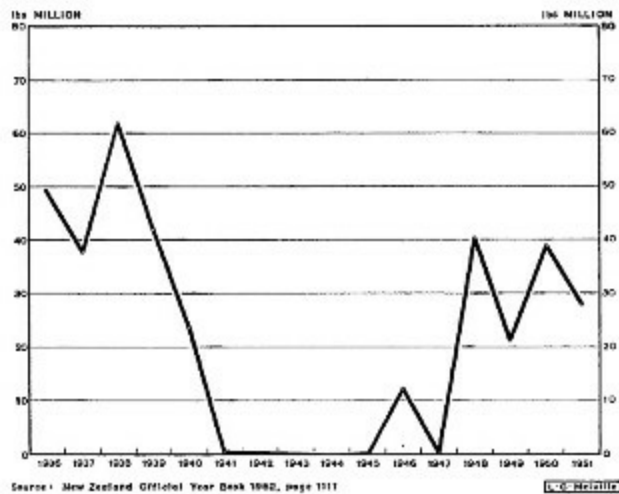


Chart 11

EXPORTS OF APPLES AND PEARS

Just as the bulk purchasing arrangements with the [United Kingdom](#) were dealt with by an organisation already experienced in handling dairy produce, so too experience was not lacking in internal marketing.

In 1937 the Government had taken over the business of one of the largest distributing houses engaged in marketing butter, cheese, eggs, ham, bacon and similar products within New Zealand. ² Powers were now given to extend the activities of the

¹ See

Chapter 8.

² The Primary Products Marketing Amendment Act 1937.

Department to the marketing in New Zealand of other types of primary produce, and the machinery was available for wartime internal marketing. The enlarged organisation became known as the **Internal Marketing Division** of the Marketing Department. ¹ One of its first wartime jobs was to dispose of the surplus of apples and pears remaining in New Zealand.

¹ Internal marketing is discussed more fully in

Financial Controls—Stabilisation

Behind all these controls, and in many ways more important than any of them, was the overall control of finance. The change from peace to war more than quadrupled annual Government expenditure in the five years from 1938–39 to 1943–44. It was characteristic of war that, if goods and services were ordered, their delivery had to be quick and certain. The urgency and size of war needs, and the massive diversion of productive resources they required, tended, unless there was a comprehensive and balanced financial policy, to generate rapid rises in prices, costs and incomes.

To find money to finance the war was only the first objective of financial policy. It had also to prevent inflation from curtailing the purchasing power of war expenditures. To this end, and to reduce fierceness of competition between defence and private orders for scarce resources, it had to take purchasing power away from the private sector of the economy. Consistent with all this, it had to leave the private sector with adequate incentives to provide increases in production from its depleted resources. For increases in production were essential, if there was to be a sufficient volume of supplies available to meet war needs in addition to such normal requirements as could not be postponed.

In short, financial policy had to make war expenditures possible, to reduce the pressure of competing expenditures and to avoid inflation, but must still not interfere with incentives to provide maximum production. It would have been difficult enough to do all these things at once had revenue collection in war not needed to be on such an unprecedented scale.

Direct controls were often necessary to ensure that the war effort was most effectively directed. They would have been inadequate to divert

resources on the necessary scale had financial policy failed in any of its major objectives. Price control and stabilisation generally had to be much more than a means of protecting the purchasing power of the people. They were to become cogs in an overall financial policy aimed at providing the climate for maximum production and maintaining the effectiveness of war expenditure in its command over goods and services.

The Government, by the Reserve Bank Amendment Act 1936, already had a substantial measure of control over the **Reserve Bank**, while the **Price Investigation Tribunal** provided an institutional structure for price control. Government controls and influences over financial transactions were to become very widespread indeed, as had to be the case if the Government was to succeed in its intention of financing an extensive war effort primarily from internal sources.

In the early war years, the fact that there was unemployment at the outbreak of war to some extent countered the inflationary effect of wartime spending. Extra expenditure tended to be absorbed and the extra need for resources met by drawing in unemployed labour. Until this pool of unused labour was largely removed, there was no immediate danger of runaway inflation.

However, financial strains soon started to appear, and in the ultimate, when it became too difficult to hold wages and prices, the Government resorted to a comprehensive stabilisation programme, in December 1942, with an **Economic Stabilisation Commission** examining almost every economic proposal to determine whether it was likely to interfere with the programme. The Government's measures, which held a surprising degree of financial stability throughout the war, in spite of excessive physical strains on the economy, must rank among the most successful of its wartime policies.

Geared for War Production

All these changes took place with remarkably little friction. A recent

writer said: ¹

‘The smooth change-over from peace to war was assisted by the import and export, marketing, and banking controls that the government had introduced already, and also by the fact that the government had a large works agency and owned or controlled much of the internal transport and communications system. Existing procedures served as a framework on which to build a more comprehensive regulatory system, much of which had been planned by the Organisation for National Service. ² A Minister of Supply, assisted by a small group of officials and a network of committees, investigated what should be done to stimulate and direct industry, and kept a continuous watch over supply and production. The government appointed ten controllers to regulate key commodities and services—sugar, wheat and flour, oil fuel, factories, timber, building, electricity, food, medical supplies, and mining. These men were public servants and worked under the general control of Ministers. A new **National Service Department** undertook the complex work of directing and controlling manpower as the country introduced compulsory military service, and geared itself to war production.’

It should perhaps be added that the switch to a war economy was assisted by the willingness of most New Zealanders, under stress, to give extra effort and make sacrifices, and by the fact that the **Public Service** was at its soundest after a quarter of a century of good recruitment, much of it by competitive entry.

¹ Polaschek in *Government Administration in New Zealand*, p. 47.

² *Sic.* Actually the **Organisation for National Security**.

WAR ECONOMY

THE FIRST FEW DAYS OF WAR

The First Few Days of War

NEW ZEALAND declared war just before midnight on 3 September 1939 and ‘in the early hours of Monday morning, 4 September, the **Organisation for National Security** and its associates had the strenuous, but rather satisfying, task of operating the newly finished War Book’. ¹

Already a state of emergency had been proclaimed on 1 September and the first group of emergency regulations had been made on 1 and 2 September. Included with the most urgent military and security powers were economic measures to prevent profiteering. ²

A quick succession of regulations followed, giving the Government wide powers of economic control. Emphasis is placed in this volume on regulations of particular economic significance. A more general picture of the flush of emergency regulations is given by Professor **F. L. W. Wood** in a companion volume. ³

Of the War Book and its use, Wood writes: ‘Under test the machine worked well. There were enough loose ends to provide a moral for the future: contingencies inadequately provided for on the one hand, and on the other, the inveterate tendency of Ministers and departments to work independently of one another and to appeal direct to cabinet, thus imperilling a hard-won co-ordination.’ ⁴

While pre-war economic action was, in many directions, inadequate, the very short time needed to make a wide range of regulations affecting the whole economy was a measure of the

¹ Wood, *Political and External Affairs*, p. 97.

² The Price Stabilisation Emergency Regulations 1939.

³ *The New Zealand People at War: Political and External Affairs.*

⁴ *Ibid.*, p. 97.

effectiveness of pre-war economic thinking. In fact some excellent inter-departmental committee work had been done in assessing economic requirements in the event of war, but pre-war action was held back, particularly on the manpower and supply sides, by the Government's failure to give any decisive lead.

It has been said that, 'In its simplest and most abstract terms the general economic problem of war is one of securing the necessary supplies'.¹ This applied with particular emphasis to New Zealand, where wartime disruption of shipping might easily accentuate supply difficulties. If there was to be a complete shipping blockage, as many people expected, the measures taken to safeguard existing stocks of vital materials would determine the number of weeks the economy could continue to function without a major disruption. Control of supply was, therefore, a very high priority, and on 4 September it received attention.² Provision was made for Controllers, under a Minister of Supply, with wide powers to restrict or direct the movement of goods. On the same date oil fuel, one of the most vital commodities in war or peace, was rationed,³ while detailed supply arrangements were made for sugar, wheat and flour.

Powers over supply and use of materials were also to be given to other Controllers, whose primary interest was in production in specified groups of industries—a dual control of supply which was inevitably to lead at times to confusion and clashes.

New Zealand was to suffer wartime shortages which were in many cases aggravated by failure to make early or adequate provision before the war for the accumulation of vital reserves. On the other hand, in those cases where stocks had been built up, the relief provided by their

judicious wartime use amply justified any pre-war sacrifices involved.

¹ Elliott and Hall, *The British Commonwealth at War*, p. 257.

² The Supply Control Emergency Regulations 1939.

³ The Oil Fuel Emergency Regulations 1939.

WAR ECONOMY

CONTROLS OVER PRODUCTION

Controls over Production

It was correctly anticipated that, in war, New Zealand production would have an increasingly important part to play, both in supplying a larger proportion of New Zealand needs and in meeting the increasing demand of the **United Kingdom** for New Zealand food supplies. Moreover, government orders for war materials and war construction would require precedence over civilian needs. This precedence could not, without runaway inflation, be obtained by attempting to outbid civilian demand. More direct measures would be necessary.

Sweeping powers to control manufacturing production were taken in the **Factory Emergency Regulations 1939**, and, on 12 September, overall control of building work was passed to a **Building Controller**.¹ Three days later, provision was made for control of primary industries by a **Primary Industries Controller**.²

Thus, within two weeks of the outbreak of war, the Government had most of the administrative powers it needed to put production on to a war footing.

¹ **The Building Emergency Regulations 1939.**

² **The Primary Industries Emergency Regulations 1939.**

WAR ECONOMY

MANPOWER

Manpower

Recruitment of men for the armed services was, at this stage, voluntary. On 8 September plans were announced for a special force of men prepared to serve in any part of the world. 'Recruiting for the first batch of 6600 men began on 12 September, and within a week almost 12,000 men had volunteered.' ³

The only interference with voluntary enlistment was the use of the list of reserved occupations which had been compiled by the **Manpower Committee before the war. This list was supplied to recruiting officers, with the intention that men engaged in these reserved occupations should not be accepted for the armed forces.**

In the early stages, withdrawal of men for military service did not require other than voluntary measures of adjustment in civilian employment. Men could be replaced without too much difficulty. Unemployed persons were taken back into production, some less urgent work was cut out, and more overtime was worked. Women were used to an increasing extent in industry.

While unemployed labour and other unused resources were available, the need for extra output for war purposes could be met largely by drawing them into production. There was, as yet, no call for any serious sacrifice of civilian consumption to make extra resources available for war purposes, and no need for the Government to be too restrictive about the use of labour for civilian production.

The process of voluntary adjustments continued throughout the first two years of the war, but by the end of 1941 the cumulative withdrawal of some 30 per cent of the total male working population had exhausted unused labour reserves. It was becoming increasingly difficult to replace

men recruited for the armed services or to divert further manpower and resources to war production.

³ Wood, p. 98.

WAR ECONOMY

THE NEED FOR CO-ORDINATION

The Need for Co-ordination

The first flush of wartime regulations was made under the Public Safety Conservation Act 1932, which had been passed as a direct result of the Hawke's Bay earthquake in 1931. This act was not entirely adequate for a war emergency and the Emergency Regulations Act 1939 was passed on 14 September as a wartime measure to provide the authority for further regulations. This act, as amended, was to be the basis for a host of wartime regulations, and would then remain in force and be used long after the emergency which gave rise to it had passed. ¹

The regulations were intended primarily to give Controllers and Departments ample powers to act in the interests of the war effort. However, the more power individuals had the more difficult it became to prevent them from acting at cross purposes. It was soon apparent that a strong co-ordinating authority was needed.

To meet this need, a **War Cabinet** was proposed. There was considerable disagreement over the form it should take. In spite of the obvious need for better co-ordination of military and economic policies, questions of production, finance and manpower were to be excluded from the functions of the **War Cabinet** as it was originally envisaged. ² However, under pressure of considerable criticism, and no doubt moved by military disasters in **France** to seek more effective measures, the Government extended the scope of **War Cabinet's** functions. Peter Fraser, ³ in July 1940, when he announced its formation, said that the scope of the **War Cabinet** 'was not to be restricted to the services but it was also to make decisions concerning "production for war purposes, war finance requirements, emergency regulations so far as they apply to the war effort and generally to implement the policy of Parliament in relation to New Zealand's participation in the war".'⁴

The War Cabinet included two members of the Opposition, Gordon Coates and Adam Hamilton, with Defence Minister Fred Jones, Finance Minister Walter Nash and Prime Minister Peter Fraser. It was to co-exist with Cabinet and with an advisory body, the War Council. ⁵

¹ Amending regulations were still being made in 1956 (1956/137). It was still being re-enacted to protect existing regulations as late as 1959.

² Wood, p. 140.

³ Savage died on 27 March 1940 and Fraser became Prime Minister.

⁴ Wood, p. 141.

⁵ The War Council was to include the Prime Minister and five other ministers, with nine members representing employers, workers, farmers, returned servicemen, and other groups. The Opposition did not accept an invitation to nominate three members.

WAR ECONOMY

POWERS TO CONTROL INDIVIDUALS

Powers to Control Individuals

However strong the patriotism of the people, it would obviously have been impossible to meet the extensive wartime demands on the New Zealand economy without some degree of overall economic planning, leading to various forms of direct control. Wartime controls followed closely on the heels of the very definite pre-war statements of the Labour Government stressing its intention to conscript wealth before men. It is interesting to see whether this had any effect on the form they took.

Considering the Government's attitude to conscription, it was only to be expected that the early regulations would not contemplate direction of men or women. When the time for such action came, the Emergency Regulations Act of September 1939, though very sweeping in its powers, was not found powerful enough to enable the Government to conscript men. It was not until May 1940 that it was strengthened by the Emergency Regulations Amendment Act, which gave complete powers to control the individual as well as his property as 'necessary or expedient' for the war effort.

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Full control of manpower would involve the completion of a national register. The national register itself was seen as a possible threat to the freedom of the individual. The Government had refused to authorise it before the war and was still most reluctant to do so. Even when it

became essential to have some form of register for specified age groups as they became eligible for conscription, the job was done piecemeal. Registration was, for the most part, restricted to those age groups which were immediately required. ¹

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² See also p. 100.

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There is no doubt whatever that the Labour Government had been very firm in its intention to conscript wealth before men, but in the circumstances as they emerged, such a policy would probably have been quite impossible to administer. Conscription of men was doggedly resisted, but ultimately was forced on the Government, partly because of the obvious unfairness of allowing men in New Zealand to please themselves whether they contributed to the war effort while large numbers of their fellow New Zealanders were engaged in actual fighting overseas, and partly because it became quite impossible, without

conscription, to find sufficient men for the forces and for essential industries.

Failure to conscript wealth before conscripting men was probably a bitter disappointment to many Labour supporters. Some drew comfort from the measures the Government did take; for example, Mr James Roberts, President of the Labour Party, said at the Labour Party Conference in June 1940: ² ‘The only objection they ³ ever had to conscription was when they were called upon to defend their country and the economic agency and the property of the country were not being utilized in the interests of the nation. In New Zealand the Government had now taken control of all property and it must be used in the interests of the country. The Government had given a pledge that no profits must be made out of the extra efforts of the people of New Zealand.’ The Government by no means took control of all property. Legally it did take intensive powers to direct the use of most productive resources. Some impression of the extent to which these powers were used, and of the possibilities of making high rates of profit from war contracts and other work, are discussed in following chapters, particularly in

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¹ Power was taken in an amendment to the National Service Emergency Regulations dated 13 January 1942.

² *Standard*, 6 June 1940.

³ 'The Labour and Socialist Movements of the world'.

There is no doubt that the Government considered the full implications of conscription of wealth before abandoning it. Conscription of wealth would, if carried as far as some of its advocates wanted, mean Government ownership, or at least control, of all the means of production. Wartime experience was to show that, in some industries, higher outputs could be obtained without Government ownership. Achievement of wartime production targets often involved using new methods and working under high pressure. Many state employees were capable, given the opportunity, of rising to such heights, but usually the detailed and rigid controls associated with state employment restricted them so much that they were unable to do so. ¹ The fact of the matter was that, where achievement of difficult targets was absolutely vital to the war effort, cost-plus arrangements and other systems of stimulating private enterprise, inequitable as they were, probably offered the only hope of success. ²

Even presupposing that there was a strong body of opinion within the Labour Government in favour of ownership of the means of production, this was politically an extremely controversial issue and one which it was not desirable to fight out during the course of a major war. Later experience has shown the New Zealand **Labour Party** to be moderate in its intentions to nationalise the economy and quite willing to concede that, for a wide range of industrial undertakings, private enterprise can often get better results, given a reasonable measure of competition.

Keith Sinclair sums up very well when he says:

‘Slumps and wars alike have led to further centralization of power. The Second World War, as in many other countries, encouraged what was already the chief tendency of the Labour Government, and speeded the progress towards a “planned economy” via “price control” and “stabilization”. Broadcasting, internal airways, the linen flax industry, were added to the long list of state monopolies; but, in general, the Government contented itself with control over credit and marketing and made no attempt to nationalize production.’³

Though some changes to state ownership were made, private ownership and the profit motive remained predominant throughout the war, and in fact were given extra emphasis, in many cases, as the only means to get difficult and urgent assignments completed in time.

¹ For example, some of the difficulties associated with the linen flax industry were of this nature. (See p. 217.)

² See also

Chapter 13.

³ Sinclair, *A History of New Zealand*, p. 267.

WAR ECONOMY

IMPORT CONTROLS

Import Controls

One of the strongest weapons to control the use of resources and the direction of expansion of industry was already available to the Government before war broke out, and could easily be used to encourage war industry or to discourage non-essential industry under war conditions. This was the system of quantitative controls over imports which had been introduced in 1938.

The Import Control Regulations 1938 were designed primarily to conserve overseas funds; but if imports were to be restricted, choices had to be made. For example, it was decided to make special provisions for imports of essential raw materials, so that the effort to reduce expenditure on overseas purchases would not adversely affect New Zealand industry. A special committee was set up within the **Industries and Commerce Department to recommend to the Comptroller of Customs the action to be taken on applications for import licences relating to supplies of equipment and materials for New Zealand industry.**

The committee was in a unique position to implement the Government's industrial policy, having as one of its aims the promotion of manufacture in New Zealand, where this would save overseas funds and where it was considered that the expansion of local industry could be carried out on an efficient basis. A general indication of the committee's functions as seen through Industries and Commerce eyes is given in the following extract: ¹

'... In December, 1938, there were gazetted regulations providing for the control of importations into New Zealand. Apart from the question of limiting the importations of various commodities for general economic reasons, the operation of these regulations was intended to enable

scientific selection of imports in order to provide for a balanced development and expansion of manufacturing industries in New Zealand. The system under the import-control policy provided for the making of application for import licences by manufacturers and general importers.

‘To ensure that manufacturers would be able to obtain adequate supplies of raw materials and new and additional forms of plant, machinery, and equipment, etc., the **Industries Committee was constituted to examine and make recommendations regarding the applications lodged in respect of manufacturing industries in our Dominion, and to act generally in this regard in an advisory capacity to the Customs Department. The **Industries Committee** met representative groups covering over one hundred industries and divisions of industries, and the general scope for economic development and expansion in manufacturing industries was closely investigated. As a result of the Committee's efforts, considerable assistance has been given to enable manufacturers in New Zealand to increase the production required to meet the market demands for various commodities in respect of which the importations of finished products were reduced or prohibited.**

‘In addition, proposals were examined for the establishment in New Zealand of manufacturing units representing large overseas manufacturers whose products were previously available to the public only through import channels. The prospects for the success of the policy have been very bright, and already a number of new industries have been established or are in the process of being established in New Zealand; and considerable expansion has occurred in industries already in existence in New Zealand. Apart from the development of their production in lines already manufactured here, they have in many cases engaged in the manufacture of new lines previously imported.’

After the outbreak of war and when the supply position deteriorated, some change in emphasis naturally occurred. When goods were available for the ordering, control over imports could be used as a means of developing industries making munitions and other war supplies and discouraging industries not regarded as essential to the war effort. But

imports of many essential materials were soon restricted by their scarcity rather than by shortage of funds. The emphasis then changed to procurement at all costs rather than to an examination of the sterling position and its effects on ability to import. In the circumstances the initiative changed to some extent and the Commissioner of Supply, rather than the Comptroller of Customs or the **Industries Committee, tended to make decisions on the importation of goods.**

¹ Parliamentary Paper H-44, Department of Industries and Commerce, Report for 1939, p. 20.

WAR ECONOMY

INFLUENCES ON THE DIRECTION OF INDUSTRIAL DEVELOPMENT

Influences on the Direction of Industrial Development

As early as 1936 an Industrial Efficiency Act had been passed to give the Government power to guide the development of industry. However, until quantitative controls over imports became effective in 1938, there was in fact little the Government could do to change the direction of industrial expansion. At this stage it became possible to influence the direction of expansion by keeping a tighter restriction on imports of materials used by industries whose expansion it was desired to discourage, and by making it easier to import materials used by industries it was desired to encourage. In the same way, development of a manufacturing industry could be encouraged by making it difficult to import finished goods of that industry but easy to import its raw materials. This sort of influence on the direction of expansion has always been associated to a greater or less degree with the use of import controls.

Under war conditions, emergency regulations gave powers to controllers to guide the rate and direction of expansion of manufacturing, and of primary production and building. There was also some selective protection of industries in the lists of reserved occupations which were issued to recruiting officers in the first weeks of war. The intention was that persons in essential industries should not be accepted for the armed forces.

In the early years of war this latter was a rather negative kind of control. Losses to the armed forces could often be made good if the industry was strong enough to compete on the labour market.

The powers given to industry controllers were seldom used to apply controls directly to the production targets of firms, and it was supply which soon became the controlling influence for nonessential industries.

This type of control intensified as shipping difficulties and the diversion of overseas production to the making of war equipment led to serious shortages of materials. As supplies became inadequate to meet the demands of essential industries, complete restrictions were placed on the use of materials for some specified purposes. Controls over the use of building materials in particular became very stringent, and severely restricted private construction or even maintenance work.

Controls over supply remained the only really effective means of influencing the rate and direction of growth of industry until the time came for the Government to take power to direct industrial labour. At that stage, control over manpower gave another powerful influence over production.

These types of influence were not always sufficient to free resources for essential works. The Government itself tended to face supply and labour difficulties. To get certain Government work done for war purposes it was necessary to divert considerable resources from other uses. This could be done either by taking direct controls sufficient to forbid the use of resources for certain purposes, or by offering a higher reward for the use of resources than could be paid by non-essential users. This latter process tended to be inflationary, but we find it used, along with direct restrictions on the non-essential use of resources. It was not sufficient just to free resources for essential uses. Adequate incentives were also necessary if war production was to meet difficult targets. ¹

¹ Not to mention the need for a supporting fiscal and monetary policy.

WAR ECONOMY

RATIONING OF CONSUMPTION GOODS

Rationing of Consumption Goods

There was very little rationing of consumption goods in the first two years of war. Motorists' supplies were an exception. Petrol was rationed from the outbreak of war. After a brief period of confusion in which some people tried to circumvent the rationing and lay in reserve supplies, coupons were issued to petrol users a fortnight after the outbreak of war. The distribution of rubber tyres was controlled from December 1941, most going to essential users.

Food rationing was avoided until April 1942.² There had been some panic buying of groceries in the early days of war. The following report from **Christchurch appeared in a **Wellington** daily:³**

'People who have been buying groceries well in excess of their normal requirements have led city grocers to adopt restrictions. In future they will sell only four pounds of sugar, one pound of tea, seven pounds of flour at a time. To avoid multiple purchases at different shops, many stores will serve only their regular customers. To counter requests for twenty-five pound or fifty pound bags of flour, they will in future buy 200 pound sacks and pre-packet in seven pound containers.

'A city grocer told a reporter this morning that his business this week had been about double the normal. The main requirements by some customers was sugar, tea and flour, and big orders were being put in for tinned fish and fruit. Shop attendants who attempted to restrain customers were bullied into accepting orders, he declared. He pointed out that hoarding was both unnecessary and unfair to other customers who bought normally and the trade was forced to make restrictions.'

The grocers' reaction was sufficient to save the day at this stage. Most people behaved sensibly, though there were some cases of hoarding

of a few non-perishable lines. As various groceries became short, many retailers went to the trouble to distribute them as fairly as possible and the need for ration coupons was postponed until 1942.

² Sugar was the first item to be rationed, on 27 April 1942.

³ *Dominion*, 8 September 1939.

WAR ECONOMY

MARKETING

Marketing

Arrangements by the United Kingdom to buy New Zealand farm produce in bulk and wartime plans for more orderly marketing of scarce commodities in New Zealand were facilitated by the existence at the outbreak of war of an experienced Marketing Department.

The introduction of the guaranteed price for dairy products would not have been feasible without controlled marketing arrangements. The Government had decided to achieve this by itself entering into the field of marketing, and accordingly the Primary Products Marketing Act 1936 had made provision for the Government to buy in these products at fixed prices and to control their sale and distribution. The Primary Products Marketing Department was set up for this purpose.

The Act gave power to the Department to market any primary product, but in the early years its function was limited to the control of marketing of dairy produce so that the guaranteed price scheme could be put into effect.

Within a few days of the outbreak of war, agreement was reached on the arrangements, which had already been discussed, for the United Kingdom Government to purchase New Zealand's exportable surplus of meat, wool, butter and cheese. A special New Zealand purchasing agency was needed and the Marketing Amendment Act 1939 ¹ provided the necessary machinery for the Department to deal with meat and wool and other products on similar lines to those already in operation for dairy produce. The Act changed the Department's name to the Marketing Department, and its functions were extended so that it could deal with any specified goods instead of with primary products only.

No bulk purchase arrangement was made for fruits. The United

Kingdom Government regarded these as comparatively low priority food items, which could be done without when shipping was scarce. It became apparent that war conditions would probably lead to the loss of most of the overseas market for apples and pears. In the circumstances the **New Zealand Government** undertook to purchase the entire crop of graded fruit for the 1939–40 season at agreed prices. As anticipated, available shipping space had to be conserved for more essential commodities and very little fruit could be sent overseas.

¹ Issued 7 October 1939.

There was a short postponement of the full impact of the **United Kingdom's** decision in the first wartime season and, in 1940, rather more than half the normal quantity of fruit was exported. However, from 1941 to 1945 less than one per cent of normal exports could be sent. The disposal of crops of apples and pears within New Zealand became a major internal marketing undertaking. ¹

Chart 11 gives an impression of the effect of the United Kingdom Government's decision to treat fruits as a low priority food item.

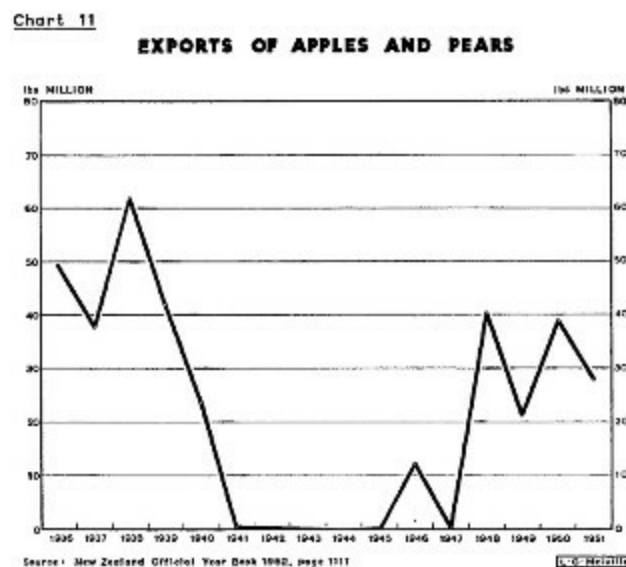


Chart 11
EXPORTS OF APPLES AND PEARS

Just as the bulk purchasing arrangements with the [United Kingdom](#) were dealt with by an organisation already experienced in handling dairy produce, so too experience was not lacking in internal marketing.

In 1937 the Government had taken over the business of one of the largest distributing houses engaged in marketing butter, cheese, eggs, ham, bacon and similar products within New Zealand. ² Powers were now given to extend the activities of the

¹ See

Chapter 8.

² The Primary Products Marketing Amendment Act 1937.

Department to the marketing in New Zealand of other types of primary produce, and the machinery was available for wartime internal marketing. The enlarged organisation became known as the **Internal Marketing Division** of the Marketing Department. ¹ One of its first wartime jobs was to dispose of the surplus of apples and pears remaining in New Zealand.

¹ Internal marketing is discussed more fully in

WAR ECONOMY

FINANCIAL CONTROLS—STABILISATION

Financial Controls—Stabilisation

Behind all these controls, and in many ways more important than any of them, was the overall control of finance. The change from peace to war more than quadrupled annual Government expenditure in the five years from 1938–39 to 1943–44. It was characteristic of war that, if goods and services were ordered, their delivery had to be quick and certain. The urgency and size of war needs, and the massive diversion of productive resources they required, tended, unless there was a comprehensive and balanced financial policy, to generate rapid rises in prices, costs and incomes.

To find money to finance the war was only the first objective of financial policy. It had also to prevent inflation from curtailing the purchasing power of war expenditures. To this end, and to reduce fierceness of competition between defence and private orders for scarce resources, it had to take purchasing power away from the private sector of the economy. Consistent with all this, it had to leave the private sector with adequate incentives to provide increases in production from its depleted resources. For increases in production were essential, if there was to be a sufficient volume of supplies available to meet war needs in addition to such normal requirements as could not be postponed.

In short, financial policy had to make war expenditures possible, to reduce the pressure of competing expenditures and to avoid inflation, but must still not interfere with incentives to provide maximum production. It would have been difficult enough to do all these things at once had revenue collection in war not needed to be on such an unprecedented scale.

Direct controls were often necessary to ensure that the war effort

was most effectively directed. They would have been inadequate to divert resources on the necessary scale had financial policy failed in any of its major objectives. Price control and stabilisation generally had to be much more than a means of protecting the purchasing power of the people. They were to become cogs in an overall financial policy aimed at providing the climate for maximum production and maintaining the effectiveness of war expenditure in its command over goods and services.

The Government, by the Reserve Bank Amendment Act 1936, already had a substantial measure of control over the **Reserve Bank**, while the **Price Investigation Tribunal** provided an institutional structure for price control. Government controls and influences over financial transactions were to become very widespread indeed, as had to be the case if the Government was to succeed in its intention of financing an extensive war effort primarily from internal sources.

In the early war years, the fact that there was unemployment at the outbreak of war to some extent countered the inflationary effect of wartime spending. Extra expenditure tended to be absorbed and the extra need for resources met by drawing in unemployed labour. Until this pool of unused labour was largely removed, there was no immediate danger of runaway inflation.

However, financial strains soon started to appear, and in the ultimate, when it became too difficult to hold wages and prices, the Government resorted to a comprehensive stabilisation programme, in December 1942, with an **Economic Stabilisation Commission** examining almost every economic proposal to determine whether it was likely to interfere with the programme. The Government's measures, which held a surprising degree of financial stability throughout the war, in spite of excessive physical strains on the economy, must rank among the most successful of its wartime policies.

WAR ECONOMY

GEARED FOR WAR PRODUCTION

Geared for War Production

All these changes took place with remarkably little friction. A recent writer said: ¹

‘The smooth change-over from peace to war was assisted by the import and export, marketing, and banking controls that the government had introduced already, and also by the fact that the government had a large works agency and owned or controlled much of the internal transport and communications system. Existing procedures served as a framework on which to build a more comprehensive regulatory system, much of which had been planned by the Organisation for National Service. ² A Minister of Supply, assisted by a small group of officials and a network of committees, investigated what should be done to stimulate and direct industry, and kept a continuous watch over supply and production. The government appointed ten controllers to regulate key commodities and services—sugar, wheat and flour, oil fuel, factories, timber, building, electricity, food, medical supplies, and mining. These men were public servants and worked under the general control of Ministers. A new **National Service Department undertook the complex work of directing and controlling manpower as the country introduced compulsory military service, and geared itself to war production.’**

It should perhaps be added that the switch to a war economy was assisted by the willingness of most New Zealanders, under stress, to give extra effort and make sacrifices, and by the fact that the **Public Service** was at its soundest after a quarter of a century of good recruitment, much of it by competitive entry.

¹ Polaschek in *Government Administration in New Zealand*, p.

47.

² *Sic.* Actually the **Organisation for National Security**.

WAR ECONOMY

CHAPTER 4 – THE DEMANDS OF WAR

CHAPTER 4

The Demands of War

Men for the Armed Forces ¹

OF all the impacts of war on the New Zealand economy, probably the most momentous was the withdrawal of men and women from industry for the armed forces. At peak mobilisation, in September 1942, over half of all New Zealand males in the age group from 18 to 45 were in uniform. This peak recruitment lasted for a comparatively short period, but a high level of manpower participation characterised New Zealand war's effort. For some two and a half years, from early 1942 to the second half of 1944, one third or more of the 18 to 45 age group was serving.

The effect on the civilian labour force was drastic. For over five years, from the second half of 1940 right through to late 1945, at least one in ten of the male labour force was in the armed forces. The most difficult period was from early 1942 until late 1943, when over a quarter of all males available for work were serving. At the peak of recruitment, in September 1942, the proportion in the forces reached 30 per cent of the male labour force.

Virtually all these men would have been available for work in New Zealand industries had they not joined the forces. ² Industry had thus, for a period, to release well over a quarter of its labour to the armed forces. Even with production curtailed in many non-essential industries, this was a staggering demand. It might well have proved insuperable had it not been possible to draw into industry considerable numbers of married women, older people and others who would not normally have formed part of the labour force, together with most of the initial pool of unemployed. There was still a drastic reduction of labour in industry, and the struggle to meet increasing demands for production with a dwindling labour force placed a considerable strain on many industries.

Chart 12 shows changes in the proportion of the male labour force who were in the armed forces.

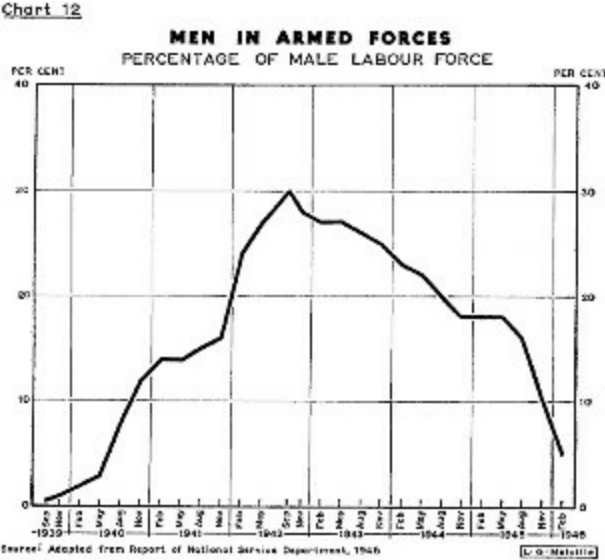


Chart 12
MEN IN ARMED FORCES
PERCENTAGE OF MALE LABOUR FORCE

¹ Armed forces strengths given here are taken from Parliamentary Paper H-11 A, Report of the **National Service Department**, 1946, p. 122. They differ from those given in H-19 B, *Statement of Strengths and Losses in the Armed Services and Mercantile Marine in the 1939-45 War* (1948). The latter figures exclude troops in transit, prisoners of war, etc., but include part-time Territorials.

² As would a large proportion of the women who joined the forces.

Overseas Service

Early in 1941 some thirty thousand New Zealanders were serving overseas. By the middle of the year there were forty thousand, and this number was to be considerably exceeded for the rest of the war. **Pearl Harbour**, in December 1941, renewed the danger of Japanese invasion and led to a rapid strengthening of the home army; but still the numbers

servicing overseas continued to increase.

At the peak of recruitment New Zealand had 50,000 men and women serving overseas and well over 100,000 serving in New Zealand. This was in September 1942, but it was not until November 1943 that the highest point was reached for men and women serving outside New Zealand. There were then 70,000 serving overseas and nearly 66,000 in New Zealand.

Wherever they were serving, men in the armed forces had to be fed, clothed, equipped and sheltered, while their services were withheld from their usual contribution to production. But the financial effects differed. The men serving in New Zealand added the financial impact of their pay to the demands on the New Zealand economy in the same way as if they had been producing. This expenditure, without any accompanying production reaching the market, aggravated the tendency to an excess of money demand for goods and services.

Chart 13 shows relationships between New Zealand's overseas and home forces over the war years.



Chart 13
NEW ZEALAND ARMED FORCES
(INCLUDING WOMEN)

To the extent that those serving overseas allotted portions of their

pay to dependants in New Zealand they, also, added to the potential money demand on the New Zealand market. However, the more significant financial impact of overseas service was the expenditure of overseas funds which had to be found to equip, pay and maintain the forces. Unless this extra expenditure was to be matched by overseas borrowing, funds had to come out of export earnings at a time when shortages of overseas funds had already led to restrictions on imports. As we have seen, ¹ the Labour Government had decided against raising money for war by overseas borrowing. New Zealand would pay for the war as it went along. In so far as the war led to overseas payments, this meant, in the main, that New Zealanders would do without a corresponding *quantum* of imported goods.



HIGH-COUNTRY SHEEP FARMING

A typical scene at mustering time on a Canterbury station

HIGH-COUNTRY SHEEP FARMING

A typical scene at mustering time on a [Canterbury](#) station



MODERN DAIRY FARMING METHODS

New Zealand has been among the world leaders in the development of labour-saving methods of dairy farming

MODERN DAIRY FARMING METHODS

New Zealand has been among the world leaders in the development



STATE HOUSING

Road planning on a pre-war state housing scheme at Wellington

STATE HOUSING

Road planning on a pre-war state housing scheme at [Wellington](#)



HEAVY EARTHMOVING EQUIPMENT, PRE-WAR
Construction of the Ngahauranga Gorge road in 1938-39

HEAVY EARTHMOVING EQUIPMENT, PRE-WAR

Construction of the Ngahauranga Gorge road in 1938-39



PRE-WAR DEFENCE CONSTRUCTION

Plant assembled for levelling work at RNZAF Station, Whenuapai,
January 1939

PRE-WAR DEFENCE CONSTRUCTION

Plant assembled for levelling work at RNZAF Station, Whenuapai, January 1939



MANPOWER FOR THE SERVICES
Enlisting for the First Echelon, 2 NZEF, at Wellington. Within three weeks of the declaration of war nearly 12,000 men had volunteered

MANPOWER FOR THE SERVICES

Enlisting for the [First Echelon, 2 NZEF](#), at [Wellington](#). Within three weeks of the declaration of war nearly 12,000 men had volunteered



MOBILISATION CAMPS

Construction work at [Trentham](#) in the early weeks of war. Mobilisation camps were completed in record time

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Construction work at [Trentham](#) in the early weeks of war. Mobilisation camps were completed in record time



OVERSEAS SERVICE

The first troops leave New Zealand, January 1940

OVERSEAS SERVICE

¹ p. 21. There is also a fuller discussion in

Women for the Armed Forces

Recruitment of women for the armed forces did not reach substantial numbers until August 1941, when six hundred women were serving. The numbers then gradually increased until a peak figure of 8700 was reached in August 1943. Thereafter women were gradually released, but in November 1945 three and a half thousand women were still serving.

Participation of women in the services released men for more active armed service, just as the entry of women into industry released men for tougher industrial assignments and for the armed forces. In the main, those women whose home ties were light enough to permit them to participate actively in the war effort did so by voluntarily replacing men in paid jobs which had been depleted of labour by recruitment for the forces.

United States Forces in New Zealand

With the war in the Pacific came the garrisoning in New Zealand of United States forces and the need to build camps and hospitals for them. In June 1942, 17,000 men arrived and there were to be substantial numbers in New Zealand from then until July 1944. Construction work for these allied forces was undertaken by the New Zealand Government using New Zealand labour. The work was an offset to American Lend-Lease supplies reaching New Zealand, but there was nothing to relieve the strain it placed on manpower. Moreover, the United States authorities in New Zealand, in need of men to load and unload vessels, to maintain camps and provide transport and a variety of other services, entered into competition for the already scarce labour supply. United States servicemen on liberty added to the demand for the limited supply of goods and services. With adequate funds and high rates of pay, the visitors were at a considerable advantage. New Zealand employers and

New Zealand consumers found themselves unable to compete. The extra injection of freely available money added to the Government's stabilisation problems, but, from the point of view of the balance of payments, there was considerable advantage to New Zealand in the inflow of foreign exchange to enable **United States** servicemen to be paid.

In the second half of 1942 there were usually from fifteen to twenty thousand **United States** servicemen stationed in New Zealand. Then, in the first quarter of 1943 the numbers were built up to over forty thousand, where they remained until a peak of 48,200 was reached in July 1943. There was a substantial reduction in August, but it was November 1943 before the numbers fell below thirty thousand.

Chart 14 shows changes in numbers of **United States** servicemen in New Zealand.



Chart 14
UNITED STATES FORCES IN NEW ZEALAND

From the military viewpoint, the presence of **United States** forces on this scale in New Zealand was of strategic significance, and must have reduced considerably the risk of Japanese attack. Indeed it is surprising that New Zealand's own armed forces serving at home continued to outnumber those serving overseas until as late as September 1943. ¹

From the economic viewpoint, the presence of **United States** as well as New Zealand armed forces in New Zealand meant so many more persons who made demands on consumer goods and services available in New Zealand without assisting in their production.

Chart 15 shows the numbers of servicemen in New Zealand, including those of both countries.



Chart 15
NEW ZEALAND AND UNITED STATES FORCES IN NEW ZEALAND

¹ See also Chart 13.

Finance: Two and a half Years of National Income Diverted to War Purposes ¹

With up to 30 per cent of the labour force serving in the forces, it was inevitable that the financial cost of war to New Zealand would take a very high proportion of available funds. In fact, expenditure on the Navy, Army and Air Force reached nearly 12 per cent of the national income in 1940–41, rising to 19 per cent in 1941–42, and to nearly 42 per cent in 1942–43. With all costs incidental to the conduct of war included, as measured by expenditure through the War Expenses Account, the proportion of the national income going to war purposes

reached 50 per cent for each of the years 1942–43 and 1943–44.

Chart 16 shows the costs of war expressed as percentages of national income.

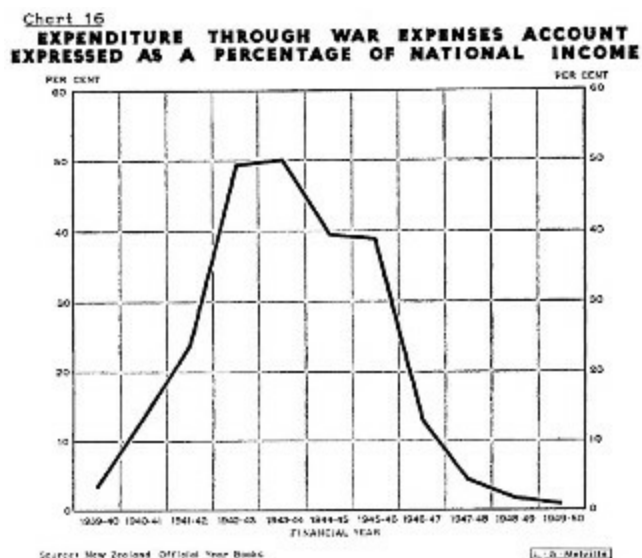


Chart 16
EXPENDITURE THROUGH WAR EXPENSES ACCOUNT EXPRESSED AS A PERCENTAGE OF NATIONAL INCOME

¹ The War Expenses Account as a measure of the cost of war is examined more fully in

Chapter 10. Comparison against National Income gives the best indication of the burden of the cost of war. When considering diversion of resources, comparison against Gross National Product is better, as is done in

Chapter 10. Note, however, that pay and allowances of special wartime forces were included in National Income, but were not liable for taxes on income.

The full costs of war over the six years 1939–40 to 1945–46 have been estimated at close to £700 million, which was equivalent to the entire national income for two and a half years, diverted to war purposes.

War expenditure on this scale was naturally not possible without very drastic curtailment of other expenditure, both for consumption and for capital formation. Even allowing for wartime restraints on other types of expenditure, the pressure on available resources was to make it most difficult to maintain reasonable stability or balance in the economy. It was fortunate that the Government was able to win a measure of support from all sections of the community for its stabilisation policy; otherwise, wartime financial pressures on a consumer market depleted of goods and on a labour market depleted of manpower would have led to rapid inflation.

Part of the costs of war had to be met in foreign exchange. Nearly £61 million was paid overseas to meet the costs of the 2nd New Zealand Expeditionary Force. This was a drain on New Zealand's overseas exchange earnings, taking foreign exchange which would otherwise have been available to pay for imports. ¹ The cost was equivalent to the value of about one full year's imports at that time.

Under Reverse Lend-Lease, New Zealand supplied the **United States** with goods and services which, for accounting purposes, have been set down at £82 million. A similar quantity ² of goods and services for war purposes was received from the **United States** under Lend-Lease. Nevertheless the sacrifice for New Zealand was high. All these transactions were concerned with the war effort and a very considerable proportion of the £82 million supplied by New Zealand, and, in effect, exchanged for war supplies, was in the form of goods which would have been available to earn foreign exchange had it not been for the war. In

fact, the largescale diversion of foreign-exchange-earning exports to become non-earning supplies to allies in the Pacific was to cause considerable alarm in 1942 and later, when it was feared that New Zealand would be left with quite inadequate funds to pay for needed imports.³

The overall requirements of foreign exchange to meet war commitments probably reached close to £150 million,⁴ equivalent to New Zealand's export earnings for about two years. Because of

¹ Often in the war years it was supply shortages rather than funds shortages which restricted imports.

² The value for accounting purposes was set higher, but New Zealand kept a tighter control over costs and prices.

³ See also

Chapter 10.

⁴ Only a rough approximation can be made. Information on overseas exchange transactions for the war years is quite inadequate. See also

the comparatively fixed nature of export earnings, this external impact was just as great a strain on the New Zealand economy as was the much larger sum of money used for war purposes in New Zealand. Without restriction of private imports, for which machinery had already been provided in 1938, aided by the fact that many of the goods New Zealanders would have liked to import were not available at the time, it might well have proved impossible to find overseas funds to meet so large a commitment. As it turned out, overseas assets, which had been dangerously low in 1930, were to reach quite a healthy level in the later war years. ¹

¹ See also

Demands on New Zealand Farming

Supply is vital in war, and it is no reflection on New Zealand fighting men to say that New Zealand's function of providing food for her allies was possibly just as important to the ultimate course of the war as her contribution to the actual fighting. War demanded an outstanding effort in both directions.

Throughout the war there was considerable pressure on New Zealand farming to produce more and more food and to supply it to an increasing range of users. **United Kingdom** needs increased as alternative sources of supply were successively shut off, and with the increasing Allied initiative in the **Pacific** from the second half of 1942 came the need to supply food to forces operating in this theatre of war. Foodstuffs to the value of £38 million, equivalent to a full year's supply to the **United Kingdom**, were diverted to the **Pacific**.

To some extent any food supplied to **United States** forces in the **Pacific** represented a sacrifice by the people of the **United Kingdom**, whose food was already in short supply. But with increasing mechanisation of New Zealand farms it was possible to provide large quantities of food for the **United States** forces without serious depletion of supplies to the **United Kingdom**. The output of farm produce was stepped up by farmers whose numerical strength had suffered considerably by losses to the armed forces; this in spite of the fact that there were shortages of fertilisers and of some types of equipment for farming.

A contribution to the continuance of supplies to the **United Kingdom**, while exceptional demands for food for forces in the **Pacific** were being met, was made by the New Zealand consumer, whose consumption of farm products was rationed from 1943.² In this and many other ways the demands of war made a direct impact on the New

Zealand consumer.

Not only was an increased output expected of the New Zealand farmer but he was required to make quite drastic switches in his production to meet the changing demands of the **United Kingdom, as other sources of supply were cut off or became available. Twice there was a substantial change in emphasis between butter and cheese production, involving frustrating and expensive re-planning and re-equipping of dairy factories.**

Other new demands emerged and were met. Production of dehydrated meat was a special war industry to meet a **United Kingdom demand which lasted from 1942 to 1944. Medicinal plants were grown to meet wartime shortages and, from the beginning of 1943, a very considerable expansion in vegetable growing was necessary to meet requirements of **United States** forces in the **Pacific**. Supporting industries were established to dehydrate or quick-freeze vegetables.**

Superimposed on all this were anxieties about shipping for perishable foodstuffs and the desirability of extra cool storage, for butter at least, to provide against stoppages or irregularities.

² **Fresh pork from May 1943, butter from October 1943, other meat from March 1944.**

Demands on Other Industries

Even before the war, **United Kingdom manufacturers had been unable to meet all New Zealand demands for war equipment. Australian industries could not do very much towards filling the gap, and purchases from the **United States** and **Canada** were, in the early years, restricted by shortage of hard currencies. It became increasingly necessary for New Zealand industries to turn to the manufacture of munitions, if her armed forces were to be properly equipped. By normal standards, most munitions production in New Zealand was probably uneconomic and, in**

practice, it was spread through hundreds of small units throughout the country. Much of the equipment required had to be adapted or improvised; and staff had to be trained to use new types of machinery. This was a diversion of manufacturing effort to meet a war need. In spite of the difficulty in importing proper equipment, a high degree of precision in manufacture was attained. The value of war equipment and munitions produced in New Zealand during the war has been estimated at £42 million, equivalent to about a quarter of a full year's output from all manufacturing industries. ¹

To meet war needs, a considerable proportion of the resources in the building and construction industry had to be diverted from dwelling construction and industrial buildings to the construction of military camps, airports and other defence requirements. This work was facilitated by the fact that there had been considerable imports of heavy earthmoving equipment for public works purposes in the years immediately preceding the outbreak of war. Defence construction work during the war totalled £47 million in value. While it was being done, a forbidding total of deferred dwelling construction and other capital work accumulated.

Industrial effort in New Zealand was also diverted to step up shipbuilding. More than 500 small ships were built, including minesweepers, submarine chasers, tugs and barges. Ship repair work was important throughout the war, but became increasingly so as the centre of war shifted to the **Pacific**.

Coal mining, which had had a slack period prior to the war, was called on to increase production as the Australian imports of coal which had been available before the war became difficult to obtain.

New Zealand depended largely on her own resources to clothe her armed forces and, increasingly, the efforts of clothing factories, woollen mills, and footwear factories were diverted from civilian production for this purpose. Employment of women in these industries was considerably expanded, but demand increased faster. In May 1942, clothing joined

other commodities which were rationed to the New Zealand consumer.

The general picture is of a very considerable diversion of industrial effort from peacetime supplies to war requirements, frequently involving considerable structural change in New Zealand industry, with new equipment and re-training of personnel to meet new demands. Not only were new types of munitions made, but many essential civilian commodities had to be made in place of supplies which could no longer be imported. This work, in many cases, had to be done with substitute materials and improvised equipment. New Zealand's productive capacity was put to the test as never before.

¹ Based on average output of manufacturing industries for the war years.

Economic Impacts of War

The main economic impacts of the war on New Zealand were the call for manpower for the forces, the heavy financial cost of war, the demands on overseas funds, the need for extra food production and the realignment of industries to provide military construction and equipment instead of peacetime requirements. These demands on New Zealand were all on a large scale. She escaped the serious physical destruction incurred by those countries which actually became battlefields but the impact on her economy in other ways was very considerable. A major purpose of the chapters which follow is to show how the New Zealand economy was reorganised to meet these demands and how they were in fact met.

WAR ECONOMY

MEN FOR THE ARMED FORCES 1

Men for the Armed Forces ¹

OF all the impacts of war on the New Zealand economy, probably the most momentous was the withdrawal of men and women from industry for the armed forces. At peak mobilisation, in September 1942, over half of all New Zealand males in the age group from 18 to 45 were in uniform. This peak recruitment lasted for a comparatively short period, but a high level of manpower participation characterised New Zealand war's effort. For some two and a half years, from early 1942 to the second half of 1944, one third or more of the 18 to 45 age group was serving.

The effect on the civilian labour force was drastic. For over five years, from the second half of 1940 right through to late 1945, at least one in ten of the male labour force was in the armed forces. The most difficult period was from early 1942 until late 1943, when over a quarter of all males available for work were serving. At the peak of recruitment, in September 1942, the proportion in the forces reached 30 per cent of the male labour force.

Virtually all these men would have been available for work in New Zealand industries had they not joined the forces. ² Industry had thus, for a period, to release well over a quarter of its labour to the armed forces. Even with production curtailed in many non-essential industries, this was a staggering demand. It might well have proved insuperable had it not been possible to draw into industry considerable numbers of married women, older people and others who would not normally have formed part of the labour force, together with most of the initial pool of unemployed. There was still a drastic reduction of labour in industry, and the struggle to meet increasing demands for production with a dwindling labour force placed a considerable strain on many industries.

Chart 12 shows changes in the proportion of the male labour force who were in the armed forces.

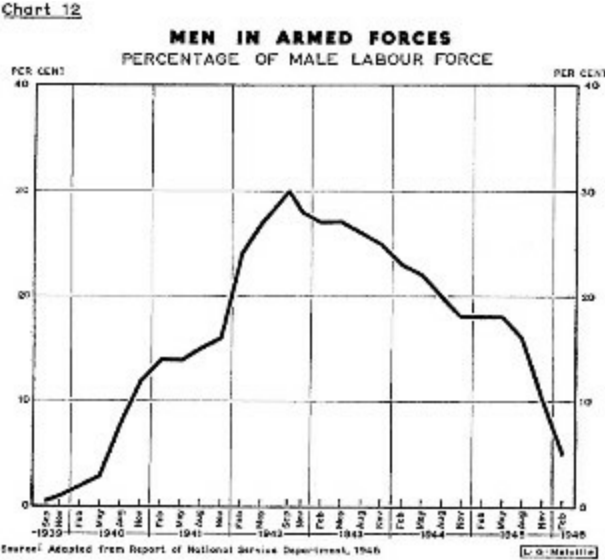


Chart 12
MEN IN ARMED FORCES
PERCENTAGE OF MALE LABOUR FORCE

¹ Armed forces strengths given here are taken from Parliamentary Paper H-11 A, Report of the **National Service Department**, 1946, p. 122. They differ from those given in H-19 B, *Statement of Strengths and Losses in the Armed Services and Mercantile Marine in the 1939-45 War* (1948). The latter figures exclude troops in transit, prisoners of war, etc., but include part-time Territorials.

² As would a large proportion of the women who joined the forces.

WAR ECONOMY

OVERSEAS SERVICE

Overseas Service

Early in 1941 some thirty thousand New Zealanders were serving overseas. By the middle of the year there were forty thousand, and this number was to be considerably exceeded for the rest of the war. **Pearl Harbour**, in December 1941, renewed the danger of Japanese invasion and led to a rapid strengthening of the home army; but still the numbers serving overseas continued to increase.

At the peak of recruitment New Zealand had 50,000 men and women serving overseas and well over 100,000 serving in New Zealand. This was in September 1942, but it was not until November 1943 that the highest point was reached for men and women serving outside New Zealand. There were then 70,000 serving overseas and nearly 66,000 in New Zealand.

Wherever they were serving, men in the armed forces had to be fed, clothed, equipped and sheltered, while their services were withheld from their usual contribution to production. But the financial effects differed. The men serving in New Zealand added the financial impact of their pay to the demands on the New Zealand economy in the same way as if they had been producing. This expenditure, without any accompanying production reaching the market, aggravated the tendency to an excess of money demand for goods and services.

Chart 13 shows relationships between New Zealand's overseas and home forces over the war years.

Chart 13

**NEW ZEALAND ARMED FORCES
(INCLUDING WOMEN)**

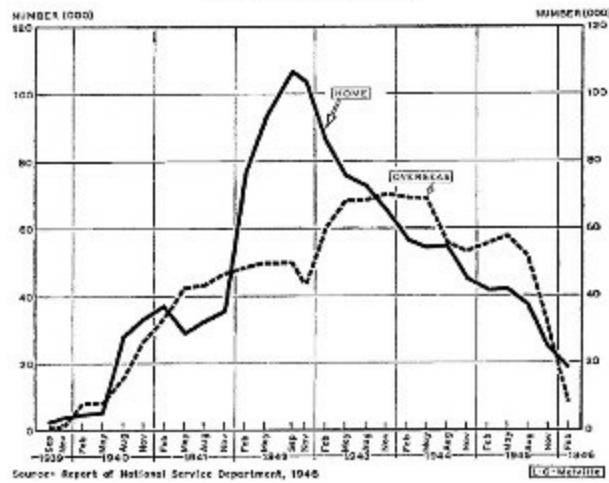


Chart 13

**NEW ZEALAND ARMED FORCES
(INCLUDING WOMEN)**

To the extent that those serving overseas allotted portions of their pay to dependants in New Zealand they, also, added to the potential money demand on the New Zealand market. However, the more significant financial impact of overseas service was the expenditure of overseas funds which had to be found to equip, pay and maintain the forces. Unless this extra expenditure was to be matched by overseas borrowing, funds had to come out of export earnings at a time when shortages of overseas funds had already led to restrictions on imports. As we have seen, ¹ the Labour Government had decided against raising money for war by overseas borrowing. New Zealand would pay for the war as it went along. In so far as the war led to overseas payments, this meant, in the main, that New Zealanders would do without a corresponding *quantum* of imported goods.



HIGH-COUNTRY SHEEP FARMING

A typical scene at mustering time on a Canterbury station

HIGH-COUNTRY SHEEP FARMING

A typical scene at mustering time on a [Canterbury station](#)



MODERN DAIRY FARMING METHODS

New Zealand has been among the world leaders in the development of labour-saving methods of dairy farming

MODERN DAIRY FARMING METHODS

New Zealand has been among the world leaders in the development



STATE HOUSING

Road planning on a pre-war state housing scheme at Wellington

STATE HOUSING

Road planning on a pre-war state housing scheme at Wellington



HEAVY EARTHMOVING EQUIPMENT, PRE-WAR

Construction of the Ngahauranga Gorge road in 1938-39

HEAVY EARTHMOVING EQUIPMENT, PRE-WAR

Construction of the Ngahauranga Gorge road in 1938-39



PRE-WAR DEFENCE CONSTRUCTION

Plant assembled for levelling work at RNZAF Station, Whenuapai,
January 1939

PRE-WAR DEFENCE CONSTRUCTION

Plant assembled for levelling work at RNZAF Station, **Whenuapai**, January 1939



MANPOWER FOR THE SERVICES

Enlisting for the First Echelon, 2 NZEF, at Wellington. Within three weeks of the declaration of war nearly 12,000 men had volunteered

MANPOWER FOR THE SERVICES

Enlisting for the **First Echelon**, 2 NZEF, at **Wellington**. Within three weeks of the declaration of war nearly 12,000 men had volunteered



MOBILISATION CAMPS

Construction work at Trentham in the early weeks of war. Mobilisation camps were completed in record time

MOBILISATION CAMPS

Construction work at [Trentham](#) in the early weeks of war. Mobilisation camps were completed in record time



OVERSEAS SERVICE

The first troops leave New Zealand, January 1940

OVERSEAS SERVICE

¹ p. 21. There is also a fuller discussion in

Chapter 10.

WAR ECONOMY

WOMEN FOR THE ARMED FORCES

Women for the Armed Forces

Recruitment of women for the armed forces did not reach substantial numbers until August 1941, when six hundred women were serving. The numbers then gradually increased until a peak figure of 8700 was reached in August 1943. Thereafter women were gradually released, but in November 1945 three and a half thousand women were still serving.

Participation of women in the services released men for more active armed service, just as the entry of women into industry released men for tougher industrial assignments and for the armed forces. In the main, those women whose home ties were light enough to permit them to participate actively in the war effort did so by voluntarily replacing men in paid jobs which had been depleted of labour by recruitment for the forces.

WAR ECONOMY

UNITED STATES FORCES IN NEW ZEALAND

United States Forces in New Zealand

With the war in the **Pacific** came the garrisoning in New Zealand of **United States** forces and the need to build camps and hospitals for them. In June 1942, 17,000 men arrived and there were to be substantial numbers in New Zealand from then until July 1944. Construction work for these allied forces was undertaken by the **New Zealand Government** using New Zealand labour. The work was an offset to American Lend-Lease supplies reaching New Zealand, but there was nothing to relieve the strain it placed on manpower. Moreover, the **United States** authorities in New Zealand, in need of men to load and unload vessels, to maintain camps and provide transport and a variety of other services, entered into competition for the already scarce labour supply. **United States** servicemen on liberty added to the demand for the limited supply of goods and services. With adequate funds and high rates of pay, the visitors were at a considerable advantage. New Zealand employers and New Zealand consumers found themselves unable to compete. The extra injection of freely available money added to the Government's stabilisation problems, but, from the point of view of the balance of payments, there was considerable advantage to New Zealand in the inflow of foreign exchange to enable **United States** servicemen to be paid.

In the second half of 1942 there were usually from fifteen to twenty thousand **United States** servicemen stationed in New Zealand. Then, in the first quarter of 1943 the numbers were built up to over forty thousand, where they remained until a peak of 48,200 was reached in July 1943. There was a substantial reduction in August, but it was November 1943 before the numbers fell below thirty thousand.

Chart 14 shows changes in numbers of **United States** servicemen in New Zealand.

Chart 14

UNITED STATES FORCES IN NEW ZEALAND

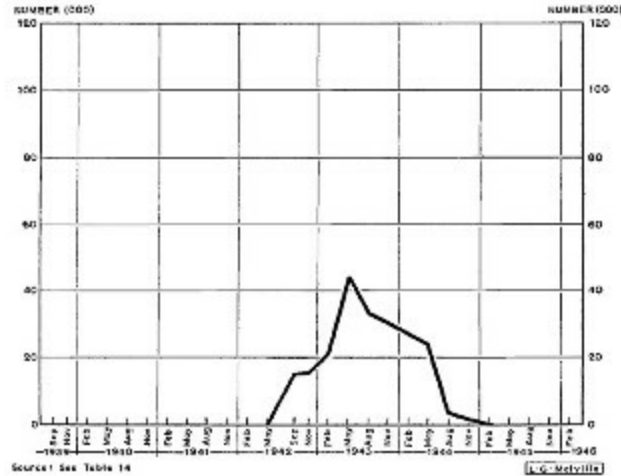


Chart 14

UNITED STATES FORCES IN NEW ZEALAND

From the military viewpoint, the presence of **United States** forces on this scale in New Zealand was of strategic significance, and must have reduced considerably the risk of Japanese attack. Indeed it is surprising that New Zealand's own armed forces serving at home continued to outnumber those serving overseas until as late as September 1943. ¹

From the economic viewpoint, the presence of **United States** as well as New Zealand armed forces in New Zealand meant so many more persons who made demands on consumer goods and services available in New Zealand without assisting in their production.

Chart 15 shows the numbers of servicemen in New Zealand, including those of both countries.

Chart 15

**NEW ZEALAND AND UNITED STATES FORCES
IN NEW ZEALAND**

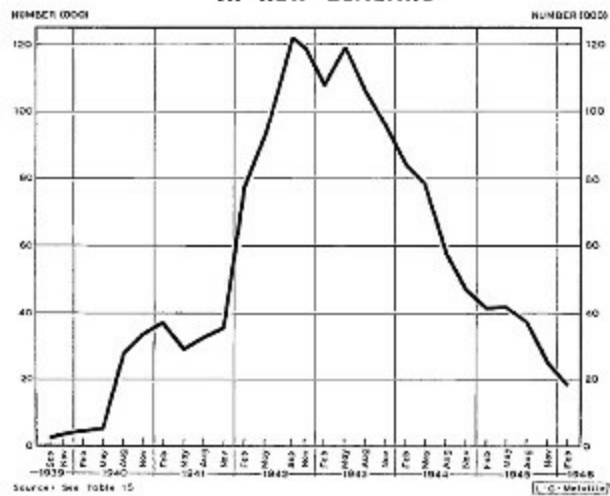


Chart 15

NEW ZEALAND AND UNITED STATES FORCES IN NEW ZEALAND

¹ See also Chart 13.

WAR ECONOMY

FINANCE: TWO AND A HALF YEARS OF NATIONAL INCOME DIVERTED TO WAR PURPOSES 1

Finance: Two and a half Years of National Income Diverted to War Purposes ¹

With up to 30 per cent of the labour force serving in the forces, it was inevitable that the financial cost of war to New Zealand would take a very high proportion of available funds. In fact, expenditure on the Navy, Army and Air Force reached nearly 12 per cent of the national income in 1940–41, rising to 19 per cent in 1941–42, and to nearly 42 per cent in 1942–43. With all costs incidental to the conduct of war included, as measured by expenditure through the War Expenses Account, the proportion of the national income going to war purposes reached 50 per cent for each of the years 1942–43 and 1943–44.

Chart 16 shows the costs of war expressed as percentages of national income.

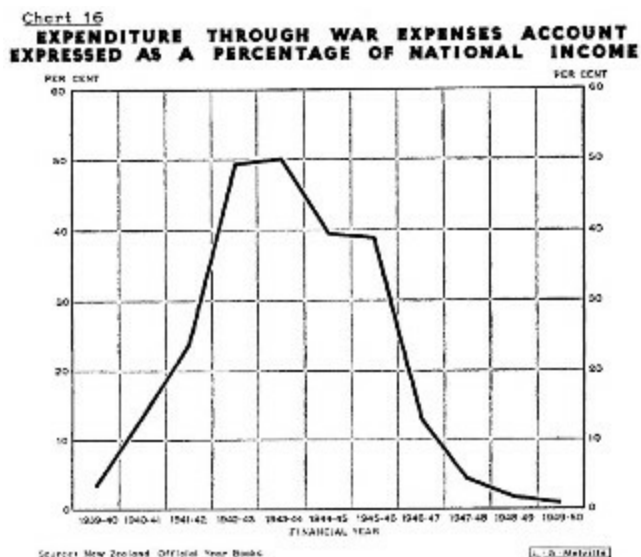


Chart 16
EXPENDITURE THROUGH WAR EXPENSES ACCOUNT EXPRESSED AS A PERCENTAGE OF NATIONAL INCOME

¹ The War Expenses Account as a measure of the cost of war is examined more fully in

Chapter 10. Comparison against National Income gives the best indication of the burden of the cost of war. When considering diversion of resources, comparison against Gross National Product is better, as is done in

Chapter 10. Note, however, that pay and allowances of special wartime forces were included in National Income, but were not liable for taxes on income.

The full costs of war over the six years 1939–40 to 1945–46 have been estimated at close to £700 million, which was equivalent to the entire national income for two and a half years, diverted to war purposes.

War expenditure on this scale was naturally not possible without very drastic curtailment of other expenditure, both for consumption and for capital formation. Even allowing for wartime restraints on other types of expenditure, the pressure on available resources was to make it most difficult to maintain reasonable stability or balance in the economy. It was fortunate that the Government was able to win a measure of support from all sections of the community for its stabilisation policy; otherwise, wartime financial pressures on a consumer market depleted of goods and on a labour market depleted of manpower would have led to rapid inflation.

Part of the costs of war had to be met in foreign exchange. Nearly £61 million was paid overseas to meet the costs of the 2nd New Zealand Expeditionary Force. This was a drain on New Zealand's overseas exchange earnings, taking foreign exchange which would otherwise have been available to pay for imports.¹ The cost was equivalent to the value of about one full year's imports at that time.

Under Reverse Lend-Lease, New Zealand supplied the **United States** with goods and services which, for accounting purposes, have been set down at £82 million. A similar quantity² of goods and services for war purposes was received from the **United States** under Lend-Lease. Nevertheless the sacrifice for New Zealand was high. All these transactions were concerned with the war effort and a very considerable proportion of the £82 million supplied by New Zealand, and, in effect, exchanged for war supplies, was in the form of goods which would have been available to earn foreign exchange had it not been for the war. In

fact, the largescale diversion of foreign-exchange-earning exports to become non-earning supplies to allies in the Pacific was to cause considerable alarm in 1942 and later, when it was feared that New Zealand would be left with quite inadequate funds to pay for needed imports.³

The overall requirements of foreign exchange to meet war commitments probably reached close to £150 million,⁴ equivalent to New Zealand's export earnings for about two years. Because of

¹ Often in the war years it was supply shortages rather than funds shortages which restricted imports.

² The value for accounting purposes was set higher, but New Zealand kept a tighter control over costs and prices.

³ See also

Chapter 10.

⁴ Only a rough approximation can be made. Information on overseas exchange transactions for the war years is quite inadequate. See also

the comparatively fixed nature of export earnings, this external impact was just as great a strain on the New Zealand economy as was the much larger sum of money used for war purposes in New Zealand. Without restriction of private imports, for which machinery had already been provided in 1938, aided by the fact that many of the goods New Zealanders would have liked to import were not available at the time, it might well have proved impossible to find overseas funds to meet so large a commitment. As it turned out, overseas assets, which had been dangerously low in 1930, were to reach quite a healthy level in the later war years. ¹

¹ See also

WAR ECONOMY

DEMANDS ON NEW ZEALAND FARMING

Demands on New Zealand Farming

Supply is vital in war, and it is no reflection on New Zealand fighting men to say that New Zealand's function of providing food for her allies was possibly just as important to the ultimate course of the war as her contribution to the actual fighting. War demanded an outstanding effort in both directions.

Throughout the war there was considerable pressure on New Zealand farming to produce more and more food and to supply it to an increasing range of users. **United Kingdom** needs increased as alternative sources of supply were successively shut off, and with the increasing Allied initiative in the **Pacific** from the second half of 1942 came the need to supply food to forces operating in this theatre of war. Foodstuffs to the value of £38 million, equivalent to a full year's supply to the **United Kingdom**, were diverted to the **Pacific**.

To some extent any food supplied to **United States** forces in the **Pacific** represented a sacrifice by the people of the **United Kingdom**, whose food was already in short supply. But with increasing mechanisation of New Zealand farms it was possible to provide large quantities of food for the **United States** forces without serious depletion of supplies to the **United Kingdom**. The output of farm produce was stepped up by farmers whose numerical strength had suffered considerably by losses to the armed forces; this in spite of the fact that there were shortages of fertilisers and of some types of equipment for farming.

A contribution to the continuance of supplies to the **United Kingdom**, while exceptional demands for food for forces in the **Pacific** were being met, was made by the New Zealand consumer, whose consumption of farm products was rationed from 1943.² In this and

many other ways the demands of war made a direct impact on the New Zealand consumer.

Not only was an increased output expected of the New Zealand farmer but he was required to make quite drastic switches in his production to meet the changing demands of the **United Kingdom**, as other sources of supply were cut off or became available. Twice there was a substantial change in emphasis between butter and cheese production, involving frustrating and expensive re-planning and re-equipping of dairy factories.

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Superimposed on all this were anxieties about shipping for perishable foodstuffs and the desirability of extra cool storage, for butter at least, to provide against stoppages or irregularities.

² Fresh pork from May 1943, butter from October 1943, other meat from March 1944.

WAR ECONOMY

DEMANDS ON OTHER INDUSTRIES

Demands on Other Industries

Even before the war, **United Kingdom** manufacturers had been unable to meet all New Zealand demands for war equipment. Australian industries could not do very much towards filling the gap, and purchases from the **United States** and **Canada** were, in the early years, restricted by shortage of hard currencies. It became increasingly necessary for New Zealand industries to turn to the manufacture of munitions, if her armed forces were to be properly equipped. By normal standards, most munitions production in New Zealand was probably uneconomic and, in practice, it was spread through hundreds of small units throughout the country. Much of the equipment required had to be adapted or improvised; and staff had to be trained to use new types of machinery. This was a diversion of manufacturing effort to meet a war need. In spite of the difficulty in importing proper equipment, a high degree of precision in manufacture was attained. The value of war equipment and munitions produced in New Zealand during the war has been estimated at £42 million, equivalent to about a quarter of a full year's output from all manufacturing industries. ¹

To meet war needs, a considerable proportion of the resources in the building and construction industry had to be diverted from dwelling construction and industrial buildings to the construction of military camps, airports and other defence requirements. This work was facilitated by the fact that there had been considerable imports of heavy earthmoving equipment for public works purposes in the years immediately preceding the outbreak of war. Defence construction work during the war totalled £47 million in value. While it was being done, a forbidding total of deferred dwelling construction and other capital work accumulated.

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shipbuilding. More than 500 small ships were built, including minesweepers, submarine chasers, tugs and barges. Ship repair work was important throughout the war, but became increasingly so as the centre of war shifted to the Pacific.

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New Zealand depended largely on her own resources to clothe her armed forces and, increasingly, the efforts of clothing factories, woollen mills, and footwear factories were diverted from civilian production for this purpose. Employment of women in these industries was considerably expanded, but demand increased faster. In May 1942, clothing joined other commodities which were rationed to the New Zealand consumer.

The general picture is of a very considerable diversion of industrial effort from peacetime supplies to war requirements, frequently involving considerable structural change in New Zealand industry, with new equipment and re-training of personnel to meet new demands. Not only were new types of munitions made, but many essential civilian commodities had to be made in place of supplies which could no longer be imported. This work, in many cases, had to be done with substitute materials and improvised equipment. New Zealand's productive capacity was put to the test as never before.

¹ Based on average output of manufacturing industries for the war years.

WAR ECONOMY

ECONOMIC IMPACTS OF WAR

Economic Impacts of War

The main economic impacts of the war on New Zealand were the call for manpower for the forces, the heavy financial cost of war, the demands on overseas funds, the need for extra food production and the realignment of industries to provide military construction and equipment instead of peacetime requirements. These demands on New Zealand were all on a large scale. She escaped the serious physical destruction incurred by those countries which actually became battlefields but the impact on her economy in other ways was very considerable. A major purpose of the chapters which follow is to show how the New Zealand economy was reorganised to meet these demands and how they were in fact met.

WAR ECONOMY

CHAPTER 5 – INCREASING PRESSURE ON MANPOWER

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WAR ECONOMY

MANPOWER FOR THE ARMED FORCES¹

*Manpower for the Armed Forces*¹

MONTH by month over the first three years of war, industry had to yield up ever-increasing numbers of men for the armed forces. Beginning with what was, by comparison, a mere trickle, this transfer of men accelerated after each major crisis in the progress of the war.

Initially men were recruited voluntarily, in moderate numbers, to be trained in New Zealand for fighting overseas, but the disasters culminating in the fall of **France, in June 1940, led to changes in recruiting methods designed to speed up the intake into the armed forces. Conscription of men for the forces began in October 1940 under powers taken in June.² By November 1941 over 81,000 men were serving, more than half of them overseas, and over 1000 women had been recruited. With the entry of **Japan** into the war, in December 1941, recruitment for the armed forces was again accelerated, and the emphasis shifted to strengthening the forces in New Zealand to meet the possibility of invasion. Within a month another 25,000 men were mobilised and, by February 1942, armed forces strengths exceeded 125,000, of whom nearly 77,000 were in New Zealand. By September 1942, numbers in the forces had reached 157,000, which was to be the peak strength, and of these the home strength, also at its peak, was 107,000.**

In terms of economic impact, leaving aside at this stage the question of financial costs, this meant that about one-tenth of all men normally working in industry had entered the armed services

¹ See p. 70, **note 1**.

² See also **pp. 58– 60**, where the Labour Government's

attitude to conscription is discussed.

by the end of 1940. A year later the proportion had increased to about a fifth and, at peak mobilisation in September 1942, industry had lost nearly one-third of its usual male labour force to the armed services.

1

This direct transfer of resources to military purposes inevitably required major industrial readjustments, which had to be made at a time when industry had an extra load to bear in maintaining supplies to New Zealand's allies and in feeding, clothing, and even to some extent munitioning New Zealand forces.

The increase in armed services strengths and the impact on the civilian labour force is summarised in the following table:

MEN AND WOMEN FOR THE ARMED SERVICES
Changes in Armed Forces Strengths from the Outbreak of War until Peak Mobilisation ²

<i>Date</i>	<i>Men</i>	<i>Women</i>	<i>Total</i>	<i>Men as a Percentage of the Male Labour Force</i>
				<i>Per cent</i>
<i>War with Germany, 3</i>				
<i>September 1939</i>				
September 1939	2,600		2,600	½
November 1939	4,100		4,100	1
February 1940	12,300		12,300	2
May 1940	13,500		13,500	3
<i>Fall of France, June 1940</i>				
August 1940	43,300		43,300	8
November 1940	60,500		60,500	12
February 1941	70,700		70,700	14
May 1941	71,000	100	71,100	14
August 1941	75,200	600	75,800	15
November 1941	81,200	1,100	82,300	16
<i>War with Japan, 7</i>				
<i>December 1941</i>				

February 1942	123,900	1,500	125,400	24
May 1942	141,100	2,100	143,200	27
<i>Peak Mobilisation</i>				
September 1942	153,600	3,400	157,000	30

¹ 3400 women were also in the forces by this time.

² Adapted from Table 4 in Report of the **National Service Department**, 1946, Parliamentary Paper H-11 A. See also **Table 12** and footnote on **p. 70**. The numbers given for November 1939 may be too low. The Special Force (**First Echelon**) was in mobilisation camps by November. It sailed at strength 6500 in January 1940.

WAR ECONOMY

RESERVED OCCUPATIONS

Reserved Occupations

In the first few months of war, the effect on industry of armed forces recruitments was not too severe. There was a pool of unemployed labour from which some of the gaps in the civilian labour force could be filled, and an attempt had been made to minimise losses from the more essential industries. The schedule of reserved occupations prepared by the **Manpower Committee and adopted by the **Council of Defence** in August 1939 was circulated to recruiting officers. From the outset, men in the scheduled occupations were not to be accepted for service in any of the armed forces. ¹**

Farming was not at this stage regarded as a reserved occupation and persons working on farms were accepted by recruiting officers. There were very soon complaints of shortage of labour on farms. Within six weeks of the outbreak of war these complaints became vociferous, but the Minister of Labour was not convinced.

A **Wellington daily reported: ²**

‘The existence of a general shortage of farm labour was denied by the Minister of Labour, Mr. Webb, in an interview last evening.

‘He said that on October 13 there were 180 recorded vacancies for experienced farm workers, while the men available numbered 203. The number of recorded vacancies for inexperienced workers was 16 and the number of men available was 865.

“Farmers requiring labour should avail themselves of the facilities offered by the State Placement Service,” said Mr Webb. “The service has a very comprehensive organisation and operates through the Social Security Department in all country districts. Competent officers will deal with every demand for farm labour of all kinds. Where experienced

labour is available every effort is made immediately to supply the demand. When experienced labour is not available, the Department is prepared to subsidise labour for a period sufficient to enable the worker and the farmer to make a success of the job. Every demand for farm labour will receive urgent attention, but I must have the cooperation of the farmers. I can assure them that, given this cooperation, their labour requirements will be met.”

‘Mr Webb said there had been criticism from various sources concerning an alleged shortage of farm labour, but when investigations had been made these charges could not be substantiated. “I want the farmers to know that any demand for labour of any kind will be attended to at once,” added the Minister, “but I do urge them to state their requirements and difficulties to the appropriate Departmental officers. I am prepared to arrange the transfer of suitable men from one locality to another as in the past. Farmers themselves realise that lack of adequate accommodation and facilities in many cases increases the difficulty of obtaining suitable labour, but whatever the difficulties may be the first step would be to inform the Department of their labour requirements.”’

Perhaps this was not an answer which would give complete satisfaction to farmers, but they certainly seem to have complained too soon. At this stage fewer than four thousand men in all had been recruited and there was still a pool of some fourteen thousand men unemployed or in subsidised employment.

Nevertheless the fact that a number of persons engaged in farming and other apparently essential industries were accepted seems to have thrown doubt on the system of screening. The list of reserved occupations was kept secret, and physically fit men who were held back because they were in reserved occupations were not advised of the reason for their rejection. Widespread misunderstandings resulted, and on 25 January 1940 the *Dominion* second leader picked up the complaints:

¹ In November 1939 this screening of voluntary enlistments passed to the Placement Officers of the **Labour Department**.

² *Dominion*. 21 October 1939.

RESERVED OCCUPATIONS

‘Protests have been made in various parts of the Dominion against the secrecy observed by the Government regarding the reserved occupations from which volunteers for the Forces must not be enlisted. It is not suggested that the reserved occupations decided on by the authorities have been unwisely selected, but in order to remove any doubt or uncertainty it is desirable that the public should be fully informed as to what is going on and the reasons for the decisions reached. A great deal has been heard about the necessity for maintaining farm production at the highest possible level as an important part of our war effort. Yet in spite of the admitted shortage of experienced farm labour recruits are being sought among farm workers. There appears to be something inconsistent in this. It is true that there has been talk about filling the gaps on farms with men from relief works, but how many of these stop-gap workers are skilled farm hands? Probably very few indeed.

‘There was some trouble a few days ago among slaughtermen in the north who wished to enlist, and were rejected on the ground that they were engaged in a reserved occupation. Their work as slaughtermen was regarded as more important to the country than their service in the fighting forces. In given circumstances this view might be the correct one, but apparently there was room for difference of opinion on the point. How is a sound judgment to be formed by the public if they are kept in the dark as to the policy which is being pursued, and the reasons for it?

‘On the face of things there can be no good grounds for making a

mystery of the occupations from which men cannot be spared for military service. On the other hand, the very fact that secrecy is observed over such a matter is bound to give rise to comment and is liable to occasion doubts and distrust not at all helpful to recruiting.'

But the Government refused to be drawn, and the list of reserved occupations remained secret. On 14 February Deputy Prime Minister Peter Fraser was reported as saying that enlistments 'were treated on merit, and men who occupied key positions in industry would be told that they could not go away till they could be replaced. There was to be no exempted industry, but men might have to be told that if the fate of industry depended on them, they could not be spared.' ¹ With this the public had to be content.

No doubt the lists of reserved occupations served a useful purpose by giving some protection to essential industries in the early stages of war. However, it was a little absurd that, while a worker in a reserved occupation could not join the armed forces, there was nothing at this stage to prevent him from taking a new job in a non-essential industry. ² While the list of reserved occupations was in use, it resulted in postponement of service for some 3000 men, mainly farm, engineering and factory workers. ³

With the appointment, in September 1940, of [District Advisory Manpower Committees](#) for hearing appeals against military service, the list of reserved occupations was dropped. A list of 'highly important occupations and industries' was substituted, but each case was to be treated on its merits. The onus was now on the employer to lodge an appeal where it appeared that a man should not be withdrawn from industry. The Director of National Service could also appeal in the public interest.

Armed forces requirements still increased and the number of men held on appeal in important industries grew larger. More attention had to be given to finding replacements for fit men who were in key positions in industry, but who were required for the armed forces.

As the forces took more men, protests from industry mounted. The Government was put under increasing pressure to give a blanket protection to specific industries or occupations. Whether the requests came from employers or from workers, it returned the same reply. No industry or occupation would be permanently reserved; each case would be dealt with on its merits. This position continued until early in 1942.

¹ *Dominion*, 14 February 1940.

² See also p. 96.

³ Parliamentary Paper H-11 A, Report of **National Service Department**, 1945, p. 4. See also p. 93 regarding holding back farm workers.

WAR ECONOMY

[SECTION]

In the first few months of war, the effect on industry of armed forces recruitments was not too severe. There was a pool of unemployed labour from which some of the gaps in the civilian labour force could be filled, and an attempt had been made to minimise losses from the more essential industries. The schedule of reserved occupations prepared by the **Manpower Committee** and adopted by the **Council of Defence** in August 1939 was circulated to recruiting officers. From the outset, men in the scheduled occupations were not to be accepted for service in any of the armed forces. ¹

Farming was not at this stage regarded as a reserved occupation and persons working on farms were accepted by recruiting officers. There were very soon complaints of shortage of labour on farms. Within six weeks of the outbreak of war these complaints became vociferous, but the Minister of Labour was not convinced.

A **Wellington** daily reported: ²

‘The existence of a general shortage of farm labour was denied by the Minister of Labour, Mr. Webb, in an interview last evening.

‘He said that on October 13 there were 180 recorded vacancies for experienced farm workers, while the men available numbered 203. The number of recorded vacancies for inexperienced workers was 16 and the number of men available was 865.

“Farmers requiring labour should avail themselves of the facilities offered by the State Placement Service,” said Mr Webb. “The service has a very comprehensive organisation and operates through the Social Security Department in all country districts. Competent officers will deal with every demand for farm labour of all kinds. Where experienced labour is available every effort is made immediately to supply the

demand. When experienced labour is not available, the Department is prepared to subsidise labour for a period sufficient to enable the worker and the farmer to make a success of the job. Every demand for farm labour will receive urgent attention, but I must have the cooperation of the farmers. I can assure them that, given this cooperation, their labour requirements will be met.”

‘Mr Webb said there had been criticism from various sources concerning an alleged shortage of farm labour, but when investigations had been made these charges could not be substantiated. “I want the farmers to know that any demand for labour of any kind will be attended to at once,” added the Minister, “but I do urge them to state their requirements and difficulties to the appropriate Departmental officers. I am prepared to arrange the transfer of suitable men from one locality to another as in the past. Farmers themselves realise that lack of adequate accommodation and facilities in many cases increases the difficulty of obtaining suitable labour, but whatever the difficulties may be the first step would be to inform the Department of their labour requirements.”’

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WAR ECONOMY

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protection to specific industries or occupations. Whether the requests came from employers or from workers, it returned the same reply. No industry or occupation would be permanently reserved; each case would be dealt with on its merits. This position continued until early in 1942.

¹ *Dominion*, 14 February 1940.

² See also p. 96.

³ Parliamentary Paper H-11 A, Report of **National Service Department**, 1945, p. 4. See also p. 93 regarding holding back farm workers.

WAR ECONOMY

CIVILIAN LABOUR RESERVES MELT AWAY

Civilian Labour Reserves Melt Away

The **National Service Department** estimated that numbers unemployed or on subsidised employment schemes fell from 19,000 at the outbreak of war to 13,000 by the end of 1940 and 6000 by the end of 1941. By December 1942 this figure had fallen to the then unbelievably low level of 2000. It was to be reduced still further before the end of the war and, more astonishingly still, to continue to fall in the post-war decade. Chart 17 shows wartime changes in unemployment or subsidised employment.

Chart 17
NUMBERS UNEMPLOYED OR IN SUBSIDISED EMPLOYMENT

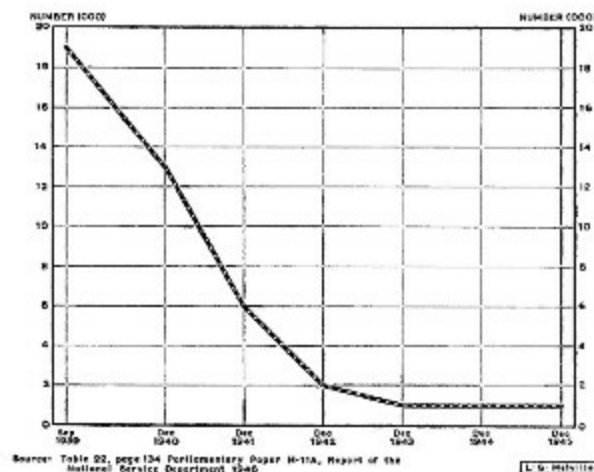


Chart 17
NUMBERS UNEMPLOYED OR IN SUBSIDISED EMPLOYMENT

Thus, from the outbreak of war until peak mobilisation in September 1942, some sixteen thousand men, previously unemployed or in subsidised employment, were absorbed into the armed forces or into industry. To this extent the impact on industry of the armed forces build-up from 3000 to 157,000 men and women was reduced.

It will be noticed that, in this volume, most of those in subsidised

employment, as well as the unemployed, have been treated as a labour pool. Such a treatment for the former group may be questioned, but is considered to be reasonable. Most of those in subsidised employment were in jobs which would not have been done without the subsidy from the Employment Promotion Fund.

Of Scheme 13, one of the more important forms of subsidised employment, the Employment Division of the **Labour Department** had written in 1939: ¹

‘In order to give effect to the policy of placing all fit unemployed men in full-time work, subsidies are made available to local authorities—City and Borough Councils, County Councils, River and Drainage Boards, School Committees, sports bodies, and other social institutions not established for profit—for the full-time employment of registered and eligible labour at award rates of pay on developmental works which would not be put in hand without State assistance. The works undertaken include the formation, widening, metalling, etc., of streets and roads; footpath construction, kerbing, and channelling; local-body water-supply and sewerage schemes; land-drainage, river-clearing, river-protection, etc., afforestation; formation, levelling, improvements, etc., to parks, reserves, domains, school-grounds, hospital-grounds, etc.; flood-damage restoration.

‘Subsidies approved under the scheme range from £1 10s. and £2 5s. per man-week for single and married men respectively to, in some cases, the full wages cost. The men are employed under ordinary industrial conditions, and are paid in terms of the award to which the employing authority is a party. In cases where an employer is not cited as a party to an award the work is carried out under the conditions and at the rates of pay prescribed by the Public Works Workers’ agreement, 1936.

‘It has always been an essential condition of employment on full-time subsidised work under Scheme 13 that the applicant must be registered and eligible to receive unemployment relief.’

The most important words in this quotation seem to be, ‘which would not be put in hand without State assistance’, although it must be conceded that this test would be difficult to apply to existing subsidised work.

¹ Parliamentary Paper H-11 A, 1939, p. 4.

Work done under subsidised schemes may have been worthwhile ¹ but, under pressure of war, much of it had ceased by 1942. To what extent it ceased because there was more urgent work to be done, and to what extent because there was no longer an unemployment problem to justify payment of subsidies, is difficult to decide. Some of the subsidised work, particularly that concerned with roads, would not again employ men on the pre-war scale, but the issue still remains confused, because changes in methods and increased mechanisation played a part in reducing labour requirements.

It is surprising that, even after recruitment had substantially exceeded the pre-war unemployment pool, the Government was still paying out substantial amounts for employment promotion schemes. This apparent anomaly did not escape attention at the time. The *Dominion* in a leader on 24 August 1942 headed ‘Employment in Wartime’ said:

‘It will seem anomalous to very many people that, at a time when the country is faced with a serious shortage of manpower—a position that can be said to have been developing rapidly from the day war was declared—the Government should, in the past year, have expended no less than £1,288,000 on the promotion of employment. That the total showed a decline of £1,124,000 when compared with the expenditure of the previous year is something, but the fact remains that in the last two years New Zealand has expended £3,700,000 on the various employment promotion plans.

‘The scheme that has absorbed over £3,100,000 of that amount is

known officially as Number 13 and it provides for full time employment at award rates with local bodies and other employing authorities of registered and eligible men. During 1940 there were, on occasions, over ten thousand men employed under Number 13 scheme, but the total fell steadily last year and in December touched 4,258, when the seasonal demand was probably at its heaviest. At March 31 last the total was 2,092 and the large majority of the men are said to be fit only for the lightest type of work. But it seems evident that some of them could be usefully employed in production—though not economically at full rates—for they were reported to be engaged on drainage, river protection, sewerage schemes, public works and land development. Probably they were the younger men, but any

¹ Though the need to pay subsidies seems to indicate that it was uneconomic. In referring to subsidised public works employment, the Employment Division had written: ‘...subsidies are granted out of the Employment Promotion Fund to meet the cost in excess of the economic value of the work.’—Parliamentary Paper H-11 A, 1938, p. 9.

man capable of doing that class of work could be useful in a milking shed.

‘The men working under Scheme Number 4B, which provides for employment under contract for the improvement and development of farms, are considered by the authorities to be reasonably fit because of the nature of the work they do. This scheme was not suspended until November last, and in 1941–42 there was a monthly average of 990 men employed. At that time it was left open for all work which had been started to be completed, but in February instructions were given that no more men were to be employed and commitments were to be cancelled although current contracts could be finished. Last year over 2,000 were allocated to this class of work, which included top dressing, road and track formation, repairing of flood damage and the ploughing of virgin land. Men who could undertake that should be able to find immediate

employment in the vital work of maintaining production—the routine work of the average farm.

‘This year the estimated expenditure on the promotion of employment, including administration expenses, is only £263,000, and while the marked decline will be satisfactory it will create serious doubt as to whether an expenditure of £1,288,000 last year was at all justified at a time when there was an increasing demand for labour. It seems hardly credible that in two complete years of war, with manpower at a premium, this country should have spent over £3,700,000 on employment promotion schemes.’

Be that as it may, some 17,000 men who were unemployed or in these types of subsidised work at the outbreak of war had been absorbed into industry or the armed forces by the end of 1942. ¹

Under stress of war, labour for industry was also augmented from groups of people not normally in the labour force, particularly married women and retired men. In a rather speculative labour force analysis, the **National Service Department** estimated ² that the number of women in civilian employment increased by nearly a quarter in just over two years, from 180,000 at the outbreak of war to 224,000 by the end of 1942.

¹ The problem raised by the *Dominion* leader can be studied in better perspective when post-war experience is also taken into consideration. See also **Chapter 20**.

² Parliamentary Paper H-11 A, Report of the **National Service Department**, 1946, p. 134.

WAR ECONOMY

WOMEN REPLACE MEN IN INDUSTRY¹

*Women Replace Men in Industry*¹

Women drawn into industry for the war period played the major part in filling gaps left by the withdrawal of men for the armed services.

Soljak writes:²

‘Women from the cities joined those in the country in the work of maintaining and increasing farm production, vital to New Zealand's war effort. Members of the Women's Land Army drove tractors, grew fruit and vegetables, milked cows, tended sheep and helped in many other phases of agriculture.

‘All organisations were co-ordinated under the Women's War Service Auxiliary, which recruited women for service with the armed forces auxiliaries and conducted classes in first aid, signalling, truck driving and canteen, clerical and farm work. Membership of the WWSA and affiliated groups exceeded 75,000.

‘As in other countries, thousands of women took wartime jobs in the Government services and in the food, clothing and munitions industries. New Zealand women in employment totalled 230,000 (including 35,000 who worked in war plants), compared with 180,000 in 1939.’

Specific references will be made to the part played by women in various industries, but at this stage a quick look at employment in manufacturing is revealing. Between 1939 and 1942 the number of women engaged in manufacturing increased rapidly from 25,700 to 35,200, a rise of 37 per cent in three years. The number of men, on the other hand, after increases in 1940 and 1941, fell in 1942 and was then less than two thousand above its 1939 level. Whereas in 1939 one would have found only 33 women for every hundred men working in manufacturing, there were 43 women for every hundred men in 1942.

For the remainder of the war, the number of women in manufacturing stayed comparatively stable at between 36,000 and 37,000, but fell post-war to 34,000 in 1946, and remained thereabouts for the next two years. Male employment, on the other hand, started to increase rapidly after 1944 and had reached over 106,000 by 1948.³ At this stage there were 32 women for every hundred men in manufacturing as compared with 43 in 1942 and 33 in 1939. Women replaced men during the war period so that manufacturing industries could expand and make their contribution to wartime production. In many cases these women yielded place to men in industry when the men returned from the armed services.

Chart 18 shows the changing proportion of women engaged in manufacturing:



Chart 18
EMPLOYMENT IN FACTORY PRODUCTION
NUMBER OF WOMEN PER HUNDRED MEN

¹ Figures given for manufacturing employment in this section are those used prior to a statistical reclassification of manufacturing in 1951-52. The years quoted are years ended 31 March.

² Philip J. Soljak, *New Zealand, Pacific Pioneer*, p. 141. Soljak

was born in New Zealand, domiciled in [America](#) and wrote to introduce New Zealand to American readers.

³ Compared with 76,000 in 1939 and 82,000 in 1944.

WAR ECONOMY

WOMEN'S ORGANISATIONS FOR WAR WORK

Women's Organisations for War Work

Most of the wartime effort of women was by individuals who became salary or wage earners, and accepted employment in industries where wartime recruitment of men had left vacancies. However, a great deal of unpaid work was also done, while a considerable organisation was devoted to attracting more women into war work and co-ordinating their efforts. A group of Women's Auxiliary Services was set up and played an important part in freeing men for the armed forces and for essential work.

The Women's War Service Auxiliary was established in 1940 to provide a national organisation co-ordinating the war effort of New Zealand women. ¹ The Auxiliary kept a register of all women

¹ Parliamentary Paper H-11 A, Report of the **National Service Department**, 1946, p. 28.

volunteering for work which would assist the war effort. The strength of the Auxiliary and affiliated organisations reached a peak of over 75,000 in 1942, when 250 district committees were operating under the Central Executive.

From the register, the Auxiliary organised groups of voluntary workers. The largest was the Canteen Section, twenty thousand strong, who helped staff canteen huts at military camps, service clubs and hospitals throughout New Zealand. Next in importance was the Clerical Section of ten thousand members who undertook the bulk of the clerical and typing work for the **Home Guard** and the Emergency Precautions Scheme. For long periods members attended in the evenings at army offices and at service camps to overtake arrears of clerical work. Their

clerical and typing contribution played an important part in the mobilisation of New Zealand's military forces, especially during the period in 1942 when the possibility of Japanese invasion required diversion of all possible manpower to active service.

The third most numerous group was the Transport Group, comprising five thousand members trained in all aspects of civilian transport. In most districts, members of this group were seconded to the Emergency Precautions Scheme and undertook convoy duties, collection of waste paper and similar work.

There was a Hospital Group of two thousand women who, besides undertaking hospital visiting, trained as hospital aids in kitchen and laundry work. Members also performed voluntary work for Hospital Boards, such as clerical and telephone work, and admission of patients.

Smaller groups of women were concerned with vegetable growing, obstetrical work and signalling.

Up to October 1942 the Auxiliary was responsible for the recruitment of women for the Women's Auxiliary Armed Forces, and, throughout the war, helped with national campaigns such as loans, bond sales, and patriotic fund appeals. The Auxiliary performed valuable work by co-operating with the **National Service Department** in keeping in touch with members of the Women's Land Service and by acting in an advisory capacity on the general welfare of service personnel and the employment of women in war work.

The Women's Auxiliary Air Force was established in January 1941 and reached a peak strength of nearly four thousand in August 1943. By VJ Day ¹ the strength had dwindled to about 2500, but there were 600 women still serving as late as March 1946. Members of this force were employed as shorthand-typists,

¹ 15 August 1945.

clerks, domestics, kitchen workers, and dental and medical assistants. During the period of peak mobilisation in New Zealand many were employed on technical work such as radio location.

The Women's Army Auxiliary Corps came into being towards the end of 1941, when a draft of thirty volunteers embarked for the **Middle East**. This corps reached a peak strength of 4600 in July 1943. By VJ Day the numbers had shrunk to about 2500, and by March 1946 fewer than a thousand women were still serving.

The strength of the Women's Royal Naval Service in New Zealand rose steadily after its inception in May 1942 to a peak of over five hundred in October 1944. Most of the women served ashore, in clerical or domestic work, although some were engaged in manning motor-launches in the **Auckland** harbour. Over a thousand women in these three services served overseas.

The Women's Land Service, where over two thousand women were serving by the second half of 1944, was established on a small scale in 1940 to supplement male labour on farms when recruitment started to have serious effects. The contribution made by these women is discussed in the chapter dealing with farming. ¹

¹ Chapter 8.

WAR ECONOMY

LABOUR LOSSES ON FARMS

Labour Losses on Farms

The impact of recruitment on farming labour was well summed up by the **National Service Department**.² The Department's statement was completely frank about the reasons behind the exclusion of farming from the early lists of reserved occupations. It said:

‘In the early months of the war no special importance attached to the farming industry. World food sources had not been disturbed, and the effects of submarine warfare seemed likely to throw strong emphasis on conservation of shipping by shortening of supply lines. Under such circumstances the farming industry neither expected nor received any special protection. Consequently considerable numbers of farm workers entered the Armed Forces. The loss of **Denmark** and the Low Countries in May, 1940, greatly (and unexpectedly) altered the picture. The loss of these sources of food and the certainty of a long and difficult struggle raised food-producing throughout the Empire to a priority level, although there was still some uncertainty as to whether shipping difficulties would enable supplies to be cleared from such distant sources as New Zealand. During the 1940–41 season, therefore, farming remained on the priority borderline, with the brake being increasingly applied to the recruitment of farm workers.

‘Before the opening of the 1941–42 season the position of the New Zealand farming industry had crystallised to a clear first priority. For that season the **United Kingdom** asked for a diversion of a portion of the country's dairying industry from butter making to cheese making, and, with the assistance of the Government, nearly four thousand milk suppliers were changed over and New Zealand increased her cheese-production in one year by 29·7 per cent. In the following year **Britain's** needs required a change back to butter production, and the switch over was made accordingly. These changes inevitably involved considerable

manpower adjustments both within the industry and in ancillary industries supplying containers and plant. The Japanese attack in December 1941, followed by the swift progress of Japanese forces in the southward thrust towards **Australia** and New Zealand, necessitated the speedy mobilization of considerable forces for home defence in the early months of 1942. The protection of the Dominion's own shores had to come first, and the farming industry, in common with all others, had to make a further contribution of manpower to the Armed Forces. As in all other industries, 1942 was the farming industry's most difficult year'

It is regrettable that, though various estimates have been made, there is no reliable measure of the numbers of men lost by farming to the armed services. Nor is there any reliable count of numbers engaged in farming at any point between the 1936 and the 1945 population censuses. According to the **National Service Department**,¹ some 20,000 men were lost to farming by December 1941, but this must be regarded as a very rough estimate.

In the early stages of war, an attempt was made to record losses by various industries to the armed forces. Copies of all enlistment forms were sent to the head office of the Social Security Department, where the intention was to sort and classify them. The purpose of this arrangement was to find replacements for men withdrawn from their occupations. Apparently the Department was soon bewildered by the flood of forms and nothing was achieved. Except for industries such as manufacturing, where annual statistics of numbers engaged continued to be collected throughout the war, there was no accurate indication of the effect of wartime recruitment on employment in various industries. Manpower policy to this extent was carried out without adequate knowledge. Farming particularly was affected by this lack of knowledge and at least one glaring mistake resulted.²

² Parliamentary Paper H-11 A, Report of the **National Service Department**, 1946, p. 35. See also p. 83.

¹ **Parliamentary Paper H-11 A, Report of the National Service Department, 1946, p. 134.**

² **See p. 493.**

WAR ECONOMY

THE MANPOWER PROBLEM EXTENDS TO SECONDARY INDUSTRIES

The Manpower Problem Extends to Secondary Industries

Manufacturing progress was affected by the policy of import selection which, as the natural outcome of import and exchange control, had been in operation since 1938. A number of secondary industries had been building up behind the shelter of this protection. War requirements and the continuance of import controls gave a further fillip to manufacturing industry and led to the emergence of another crop of new industries. ¹ Yet there was no general shortage of labour for manufacturing until 1941. The reason was the increasing employment of women in many industries where the labour force had previously been predominantly male. ² By way of example, the meat freezing and preserving industry, while staffed predominantly by men, employed two and a half times as many women in 1942–43 as in 1938–39. More than four hundred extra women had moved into the industry. Over the same period a loss of over a hundred men in dairy factories was more than made good by recruitment of extra women.

In electricity generation and supply women had made up only about 10 per cent of total staff, but in the first four years of war losses of men were made good by recruiting women, and in 1942–43 women made up 18 per cent of staff. In these four years the number of women in sheet-metal industries doubled and the number in foundries and boiler making trebled.

Even in 1942–43, when an extra 125,000 men had been absorbed into the armed forces, manufacturing industries had a labour force 12,000 higher than at the outbreak of war.

The war period comes into the earlier stages of a fairly rapid change in the economic structure of New Zealand, when secondary industry was moving up from its subordinate place to reach a position, in the 1950s,

where it was to rival farming as the largest producer of goods. To some extent the pre-war upsurge of manufacturing made the strains of war tolerable, but then again manufacturing thrived on wartime demands and its upward impetus was strengthened.

Wartime demands for manufacturing production were much more direct than those on farming, and by the middle of 1941 manufacturing too was feeling the pinch as a result of the drastic reductions in civilian manpower. Two extracts from letters by the Factory Controller to the Director of National Service are of

¹ Manufacturing production is dealt with in

² See also Chart 18, p. 91.

interest. On 10 June 1941, he wrote in protest at the continued drawing off of men for the forces, and said:

'I have no need to point out the difficulties under which many manufacturers are working today through the loss of trained workers. This position will become more difficult as further classes are enrolled and as we have to improvise more and more in our production.'

Then, on 2 October 1941, he protested against employers in non-essential industries taking key men from essential work. ¹

'In each case I have used my best endeavours to have the man retained on military work, but, as I have no power to control workers' movements, moral suasion only has been open to me.'

As the position became more difficult, there was considerable pressure for protection of key industries, but, from the dropping of the original reserved occupations lists in September 1940 until it finally decided on direction of civilian manpower in January 1942, the Government firmly refused to give any industry a blanket protection by declaring it essential.

¹ Both letters on National Service file 13/2/5, Pt. 1. Extracts in War History narrative No. 51.

WAR ECONOMY

OTHER INDUSTRIES

Other Industries

Losses suffered by other industries depended to a large extent on whether their occupations were regarded as sufficiently important to be listed as reserved or important occupations.

Transport and communications suffered severe losses of men to the forces. These losses were to some extent made good by recruitment of women, though the Railways did not find it so easy to use women as did the **Post and Telegraph Department. Road transport drivers also became scarce as military needs competed directly with civilian services.**

Pressure of defence construction work and losses of men to the forces increased the labour difficulties of the building and construction industry. By November 1941 the industry generally was working a forty-five to fifty-four hour week.² Difficulties were accentuated when the entry of **Japan into the war in December 1941 gave urgency not only to local defence works but also to the mobilisation of all possible manpower for the home forces. It was evident that the Government could not for much longer delay taking power to direct men into essential industries.**

² **Parliamentary Paper H-11 A, Report of the **National Service Department**, 1946, p. 39.**

WAR ECONOMY

THE COMING OF EMPLOYMENT CONTROLS

The Coming of Employment Controls

By the end of 1941 17 per cent of all men in industry had been taken into the armed forces. Since October 1940, conscription had been necessary to find sufficient numbers for the armed forces. ¹ In industry this had led to further inroads on the labour supply.

As competition for labour grew fiercer and the production from some of New Zealand's industries became more vital to the war effort, it was increasingly apparent that more than persuasion would be necessary to safeguard staffs of essential industries.

The entry of **Japan** into the war, in December 1941, resulted in accelerated recruiting for the Forces in New Zealand and threw further burdens on industry. In the next three months the strengths of the armed forces were increased by 40 per cent, but were still regarded as inadequate. Some idea of the pressure on manpower at this stage is given by Wood when he says, '... no conceivable disposition of manpower could find, even untrained, more than half the men judged necessary for the local defence of New Zealand.' ²

Some measure of compulsion became necessary and the Government, which had first resorted to military conscription in October 1940, took specific powers in January 1942 to conscript workers for industrial purposes. ³ It became possible to require civilians to register for work, to direct them into work of national importance, to stop workers leaving industries which were regarded as essential, and to restrict the engagement of labour in industries not regarded as essential. Measures could also be taken to combat industrial absenteeism. These powers were given to the Minister of National Service, subject to a right of appeal to a local **Manpower Committee**.

A formal declaration by the Minister of National Service that an industry or undertaking was engaged in essential work was the starting point for industrial control. Once this declaration was made, the movement of workers in and out of the industry and the employers' right to dismiss became subject to control by the District Manpower Officers. As a corollary, measures became necessary to protect workers who were held in essential industries against unfair wages or working conditions and to require from them reasonable standards of attendance and performance.

¹ Under National Service Emergency Regulations gazetted on 18 June 1940.

² Wood, *Political and External Affairs*, p. 223.

³ By amendment to the National Service Regulations, 10 January 1942. (The Emergency Regulations Amendment Act of 31 May 1940 had already given more general powers to control the labour force.)

The principal industries affected by declarations of essentiality were:

1

Mining	Food processing
Sawmilling	Clothing and footwear
Defence construction	Provision of meals
Railways	Government Departments
Power supply	Education
Engineering and shipbuilding Hospitals, Fire Boards, and sanitation	

In many cases the acceptance or otherwise of defence contracts was crucial in deciding whether particular undertakings should be declared essential. For this purpose the **National Service Department depended on the Factory and the Munitions Controllers to specify the businesses which were concerned with defence contracts, so that their labour supply could be conserved.**

By the end of 1942 some 230,000 workers, or about one-third of the working population, were in industries which had been declared essential. Farming, despite its paramount importance, was never actually declared essential, but from 1940 onwards always featured prominently in the Government's arrangements for the protection of the internal economy. There were said to be administrative difficulties in the way of providing the formal procedures necessary to declare farming essential. ²

Of the introduction of manpower controls the **National Service Department** wrote: ³

‘By the middle of 1941, ... it had become apparent that the war must be a long one, requiring a further steady flow of reinforcements overseas. While, up to that point, industry had been able to adapt itself to the increasing labour shortage by voluntary measures, a close study of the over-all man-power position then carried out showed that, with 73,000 men already withdrawn from industry and in the Forces by the end of June, 1941 (including 42,000 actually overseas), these voluntary measures of adjustment could not continue to meet the position for much longer. In September, 1941, the Department therefore began to study the question of introducing compulsory measures of industrial mobilization (man-power controls) in New Zealand whenever the strain of mobilization might make this necessary. In doing so it had available the measures already adopted by the British Government.

¹ Parliamentary Paper H-11 A, Report of the **National Service Department**, 1943, p. 44.

² See also p. 194.

³ Parliamentary Paper H-11 A, Report of the **National Service Department**, 1946, p. 30.

‘The outbreak of war with Japan in December, 1941, brought the question of industrial mobilization to a head with unexpected urgency. The need for home defence became of paramount importance. It became immediately necessary to withdraw a further 45,000 men from industry for the home-defence Forces in the early part of 1942, followed by further withdrawals, until, by September, 1942, industry had lost some 170,000 ¹ men to the Armed Forces overseas and within New Zealand. The necessity for mobilization on such a scale made the introduction of man-power controls a matter of urgent necessity almost overnight. In January, 1942, Amendment No. 8 of the National Service Emergency Regulations 1940 was gazetted providing for such controls and for the appointment throughout the Dominion of District Man-power Officers to administer them under the direction of the Minister of National Service. These regulations were later taken out of the National Service Emergency Regulations and gazetted separately as the Industrial Man-power Emergency Regulations 1942, and then came under the administration of the Minister of Industrial Man-power.

‘Under these regulations industries or individual units of industries in which it became necessary to hold or reinforce the labour content could be declared to be “essential”. The first declarations were made in January, 1942, covering butter and cheese making, electric-power production and supply, the manufacture and supply of coal-gas, hospitals, the sawmilling, coalmining and linen-flax industries, and the manufacture of munitions and Army equipment. As war production mounted and as further mobilization decreased the labour force available to industry as a whole, it became necessary to extend the coverage of declarations not only to protect actual war production, but also to protect vital ancillary production and services, until by 31st March, 1944, it was estimated that approximately 255,000 workers, representing 40 per cent of the Dominion labour force, were employed in undertakings declared essential.’

¹ *Sic.* This figure may refer to enrolments rather than to numbers lost at a specific time. See also table on p. 82.



WAR ECONOMY

MANPOWER REGISTERS

Manpower Registers

The regulations made every civilian liable for direction to work of national importance, irrespective of age or sex, and provided for the registration of persons by successive age and occupation groups. ¹ Originally it had been announced by Mr Fraser ² that information collected from the Social Security registration forms would provide the basis of a National Register of Manpower. A considerable amount of work was done in classifying the Social Security forms, ³ but it was wasted when the job had to be abandoned to get quicker action on a narrower front. Full-scale registration had proved too formidable a task. Men or women were required to register in groups as needed. Administration was decentralised, with registration in the hands of individual District Manpower Officers. The size of the group to be registered was determined by the capacity of the manpower officers to cope with the work, and new groups were not registered until work on previous groups was nearing completion.

In general, the system was to call on all persons within certain narrow age ranges to register their names; but, to meet the pressing needs of some industries, persons in broader age groups with particular types of skill or experience were also required to register. Some 115,000 men had registered their names with the manpower officers by 1943, including civilians between the ages of 18 and 45 whose liability to register for military service came before their liability to register for employment.

There was some hesitation in calling for registration of women and, when the first registration order went out in March 1942, only young women aged 20 and 21 were asked to register. The upper age limit was gradually extended to reach 30 in September 1942, and, in February 1943, girls of 19 and 20 were also required to register. Finally, women

up to the age of 40 were included in January 1944. Registration was not compulsory for those women whose domestic duties included the care of children under 16 years old. By the end of March 1944, 147,000 women were registered for employment.

The following table of successive registration orders illustrates the growing intensity of the search for men and women who could be directed to fill gaps left in essential industries by armed

¹ The first sentence of Clause 7 (1) read: ‘The Minister may, by notice given in such manner as he thinks fit, direct all persons of any specified class or of specified classes, whether normally engaged in any occupation or not, to register for employment with the nearest District Man-power Officer or with any other specified official.’

Clause 7 (3) read: ‘Every person registered under this regulation shall, as required by the District Man-power Officer, undertake such employment or training for employment as that Officer may direct, and shall continue in such employment or training for such period as the said Officer may require.’

² On 13 February. Mr Fraser was then Deputy Prime Minister. Reported in *Dominion*, 21 March 1940.

³ As authorised by the Social Security (Supplementary) Regulations, gazetted 20 March 1940, which also required extra information to be supplied by persons 16 years old or over, when registering. Previously, for example, only those under 20 had been required to give information on their ages.

forces recruitments. Men aged 18 to 45 had already registered for military service, and those who had not yet been called up or who had been rejected for military service were also available for direction if required. The search for men with special skills went side by side with the search for those with no immediate military responsibilities.

Dates of Registration Orders ¹

Date **Classes covered** ²

18/3/42 Men aged 46–49 inclusive, and women aged 20–21 inclusive

18/3/42 Men with experience in building and construction, aged 18–70 inclusive

18/3/42 Men with experience in engineering and metal trades, aged 18–70 inclusive

8/4/42 Men aged 50 but not 51

7/5/42 Men with experience in the timber industry, aged 18–65 inclusive

15/7/42 Women aged 22–25 inclusive, resident in boroughs of **Hamilton** and **Cambridge**

3/8/42 Women aged 22–23 inclusive

24/9/42 Women aged 24–30 inclusive

8/10/42 Men aged 51–59 inclusive

8/10/42 Aliens aged 18–45 inclusive

3/2/43 Persons with qualifications or experience in science or engineering

18/2/43 Women aged 18–19 inclusive

26/1/44 Women aged 31–40 inclusive

The order in July 1942 covering women aged 22 to 25 living in **Hamilton** or **Cambridge** is specially interesting. They were required to staff a local munitions factory.

¹ Based on table in Parliamentary Paper H-11 A, Report of the **National Service Department**, 1946, p. 133.

² As a general rule exempted classes were provided for in each case, including, *inter alia*, persons already registered, members of the Forces, invalids, and other classes definitely unavailable for direction into (other) employment.

WAR ECONOMY

DIRECTION OF LABOUR

Direction of Labour

For the first few months of 1942 the **National Service Department** used the new control over labour cautiously. Fewer than five thousand direction orders were issued up to the end of June, compared with over fifteen thousand in the following six months.

By 31 March 1943 nearly twenty-seven thousand persons had been directed into essential work, and directions were being made at the rate of three or four thousand a month. Before the war finished the total was to reach 176,000.

DIRECTIONS INTO ESSENTIAL WORK ¹

Number of Directions Complied With

<i>Period covered</i>	<i>Males</i>	<i>Females</i>	<i>Total</i>
Up to 31 March 1943	22,300	4,700	27,000
Year ended 31 March 1944	41,300	11,700	53,000
Year ended 31 March 1945	53,500	16,000	69,600
Year ended 31 March 1946	21,400	5,100	26,600
Total to 31 March 1946	138,500	37,600	176,100 ²

For so far-reaching a control, direction of civilian labour proceeded with surprisingly little friction. The need for the co-operation of workers' and employers' organisations and, through them, of workers and employers individually, made it advisable to set up joint advisory bodies representing each important industry. Accordingly, shortly after the introduction of industrial mobilisation in January 1942, **Manpower Utilisation Councils and Committees** were established. The function of each Manpower Utilisation Council, which was a national organisation, was to advise the **National Service Department** on the use of labour in the industry with which the Council was concerned. Local Manpower Committees, tributary to these Councils, were to advise the District Manpower Officers and the Armed Forces Appeal Boards on the best local

use of labour. Utilisation Councils and Committees were established as the need arose, until twenty-six industries were covered.

Appeal committees were also necessary. Of their establishment the **National Employment Service** writes: ³

‘With the introduction of industrial mobilization in January 1942, it became necessary to constitute independent authorities to deal with the appeals of workers and employers arising out of decisions of District Manpower Officers. Consideration was given to the suggestion that this work might well be performed by existing Armed Forces Appeal Boards or, as they were termed at the time, **District Advisory Manpower Committees**. The extreme pressure under which these bodies were working at the time, and the desirability of establishing authorities especially equipped to deal with the industrial as distinct from the military aspect of compulsory national service, decided the Government against the proposal. It was decided, instead, to establish Manpower Appeal Committees, each of which would be composed of one representative of employer interests, one representative of employee interests, and a Chairman appointed independently by the Government. Four Industrial Manpower Appeal Committees were established initially, with territories based on the four main centres and empowered to deal with all appeals arising out of the decisions of Manpower Officers in their respective territories. During 1942 the volume of work of Industrial Manpower Appeal Committees grew appreciably, and in 1943 it was found necessary to establish two committees instead of one for the **Wellington** zone.’

Under 3 per cent of direction orders were appealed against and, of these appeals, rather more than a third were allowed.

¹ Adapted from Table 28, Parliamentary Paper H-11 A, Report of **National Service Department**, 1946, p. 140.

² Due to ‘rounding’, totals may disagree with the total of

individual items as shown.

³ Parliamentary Paper H-11 A, Report of the National Service Department, 1946, p. 33.

WAR ECONOMY

MANPOWER FULLY EXTENDED

Manpower Fully Extended

By the end of 1941 all age groups of single men considered suitable for military service had been mobilised by successive ballots for the armed forces. In January 1942 married men from 18 to 45 inclusive without children were called up, followed, during the rest of 1942, by all successive age groups of married men from 18 to 45 with children, together with the inflow of men at age 18. After this there remained, out of the fit men aged from 18 to 45, only those held on appeal in industry and the annual inflow at 18. At the end of 1942 less than half of all males aged 18 to 45 were in industry, almost all of the rest being in the armed forces.

With this degree of mobilisation, extra demands for men for industry could be met only from men who were unfit or were outside military age, or by better disposal of those held back for important civilian work. It is small wonder that there were so many directions into essential work.

Even by mid-1942, the position in some industries had become so difficult that the Government had to make temporary releases of men from the armed forces and from public works. Yet the demands of the armed forces were such that balloting had to go on, in spite of a recommendation from the Director of National Service in July that it be postponed. ¹ Peak mobilisation was in September 1942, but the shortage of civilian manpower was to continue and worsen as demands for production from strained resources still increased.

Chart 19 gives a general impression of the depleted manpower in industry during the most difficult months of the war. For every hundred workers in industry in the immediate pre-war months, only ninety were available in late 1942. The measures adopted by different industries to provide extra production with this depleted labour force are dealt with in

some of the following chapters.

Chapter 18 returns to a further discussion of manpower problems, particularly in the later war years.

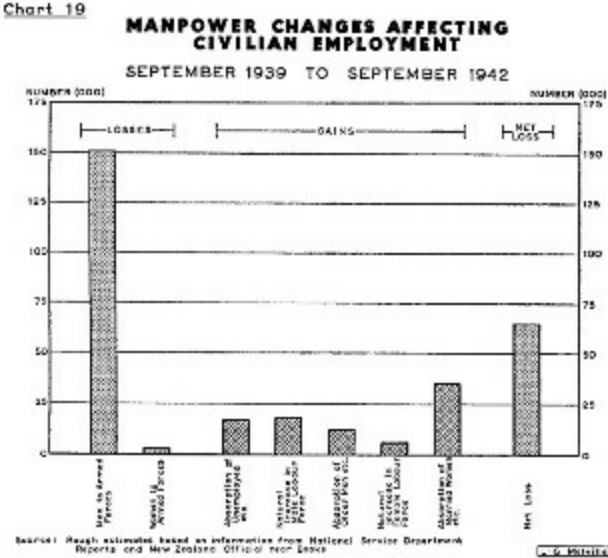


Chart 19
MANPOWER CHANGES AFFECTING CIVILIAN EMPLOYMENT
SEPTEMBER 1939 TO SEPTEMBER 1942

¹ National Service report of 18 July 1942. War History narrative No. 51, pp. 76-7.

WAR ECONOMY

CHAPTER 6 – PROBLEMS OF SUPPLY

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WAR ECONOMY

EARLY SUPPLY DIFFICULTIES

Early Supply Difficulties

NEW ZEALAND, before the war, depended on overseas producers for 40 per cent of the goods she used. Her supply problems in the early war years were made critical by a pitiful shortage of overseas funds to pay for these imports. Becoming painfully apparent in the second half of 1938, this shortage of overseas funds had made it difficult to maintain normal imported supplies, let alone to build up the special reserves whose need was indicated by the threat of war. In the early war years the supply problems grew in urgency, but the shortage of funds was still restrictive. In fact it became even more hampering, as wartime interferences with traditional overseas sources necessitated a search for new suppliers.

From the supply viewpoint, New Zealand entered the war most inauspiciously, with inadequate military equipment for even small armed forces, with manufacturers' and other stocks generally below normal, and with import and exchange restrictions hindering overseas ordering.

To tell the full story, imports had been high in 1937 and 1938, but, in those years, insufficient attention was given to building up strategic reserves. Thus many of New Zealand's wartime supply difficulties stem from an unfortunate combination of pre-war circumstances. At the time when New Zealand imports were high, the Government did not take sufficient notice of official recommendations to build up supply reserves, whereas, when the Government did ultimately decide to act, the effect of its decision was to a large extent cancelled out because shortages of overseas funds had forced an overall reduction of the level of private importing.

WAR ECONOMY

TERMS OF TRADE

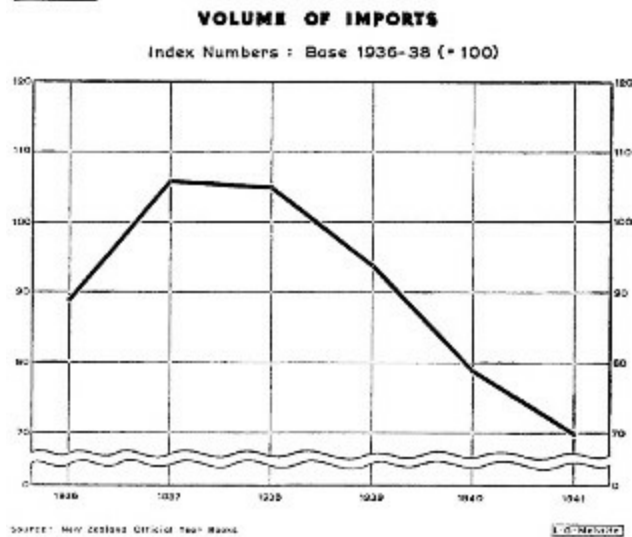
Terms of Trade

In a country so dependent as New Zealand on imported goods, considerable importance attaches to the purchasing power of exports. Changes in the quantity of imports purchased by a given quantity of exports are measured by the terms of trade index.

After 1937 the terms of trade turned against New Zealand. The purchasing power of exports started to decline. Importing in that year had been high. In the following year, with lower prices for exports and a continuing high level of importing, overseas reserves were run down, and it became necessary to resort to import and exchange controls. To protect New Zealand's overseas solvency these controls had to be severe. In 1939 they held the volume of imports to 11 per cent below what it had been in 1937. It is small wonder that there were now difficulties in building up supplies of essential materials and equipment; difficulties which were aggravated by the fact that strategic goods were not always freely available overseas at this late hour.

Chart 20 shows changes in the volume of imports.

Chart 20

**Chart 20****VOLUME OF IMPORTS**

Index Numbers: Base 1936-38 (= 100)

In 1940 the volume of imports again fell drastically, to be 25 per cent below its 1937 level, and in 1941 it was only two-thirds of 1937. In a country where imports usually made up some 40 per cent of all goods becoming available for use, these were the really difficult supply years. In 1942 there was a small but useful improvement, and in the following year, aided by substantial imports of Lend-Lease goods, the position improved so much that 1943 importing was, in volume, 21 per cent above its 1937 level.

The terms of trade for New Zealand deteriorated in every year from 1937 up till 1943. By that year the position had worsened so much that a given quantity of exports would purchase less than three-quarters of the imports it had purchased in 1937. After 1944 there was, for some years, a rather halting reversal of this worsening trend but with no marked improvement until after 1947. Not until 1950 would the purchasing power of a given quantity of imports return to its 1937 level.

Chart 21 shows changes in terms of trade.

Chart 21

TERMS OF TRADE
CHANGES IN QUANTITY OF IMPORTS PURCHASED BY
A GIVEN QUANTITY OF EXPORTS

Index Numbers : Base 1936-38 (=100)

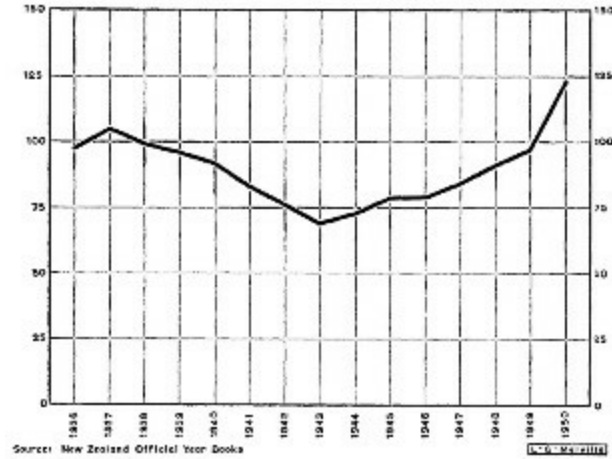


Chart 21

TERMS OF TRADE

CHANGES IN QUANTITY OF IMPORTS PURCHASED BY A GIVEN QUANTITY OF EXPORTS

Index Numbers: Base 1936-38 (= 100)

Thus, the immediate pre-war period saw a decline in terms of trade, and, for the whole of the war, terms of trade were to New Zealand's disadvantage, compared with those existing before the war. In the early war years, when traditional suppliers were finding it a burden to fill New Zealand orders, this reduction in purchasing power on overseas markets restricted the already difficult search for new suppliers.

WAR ECONOMY

THE NEED FOR RESERVE STOCKS

The Need for Reserve Stocks

Some wartime relief on the supply side was given by reserve stocks of essential materials built up before the war. However, this effect was comparatively small, most attempts to accumulate reserve supplies being frustrated by shortages of overseas funds in the immediate pre-war years. Moreover, stocks generally tended to be below normal when war was declared. In the circumstances, it was particularly fortunate for New Zealand that the expected severe interruption of overseas shipping did not in fact occur.

As early as August 1936 the **National Supply Committee**, in issuing its first industrial questionnaire to manufacturers, had said: ¹ ‘... we are working on the assumption that if a war occurs in **Europe**, or in the **Pacific**, the minimum effect will be severe interruption to our overseas shipping for at least three months. Our main problems are concerned with the essential imports and with the keeping up of the even flow of our exports in primary products. Prolonged interruption of seaborne trade would obviously have serious repercussions.’ Neither this survey nor the one which followed it in September 1938 yielded accurate information. Probably their main value was to keep manufacturers aware of the problem and to encourage them to build up their own stocks—to the extent that the Government's import and exchange controls would permit them to do so. Indeed, at its third meeting in October 1937, the **National Supply Committee** had decided that ‘the best way of keeping the question of the needs for adequate reserves of stocks before manufacturers is for the Department of Industries and Commerce to maintain a constant personal contact; and this duty should be definitely assigned to that Department.’ ²

Certainly the questionnaires do not seem to have been of much direct use for any other purpose. They did not lead to any substantial

remedial action by the Government and, in wartime, when the Factory Controller came to place orders for production, he found the manufacturers' replies to the surveys unsatisfactory as a basis for the allocation of orders. New inquiries had to be made in each case.

¹ **Copy on Industries and Commerce file 55/8.**

² **Quoted in memorandum from Permanent Head, **Industries and Commerce Department**, to Secretary, Public Service Commission. On Industries and Commerce file 55/8.**

WAR ECONOMY

PRE-WAR CLASH OF SUPPLY AND OVERSEAS EXCHANGE POLICIES

Pre-war Clash of Supply and Overseas Exchange Policies

Early in 1939 it became apparent that the **National Supply Committee's** request to manufacturers and distributors to carry additional stocks was clashing with the Government's policy of import and exchange control. The **Allocation Committee for Sterling Funds** was informed of the supply policy of the **Organisation for National Security** and asked to keep in mind the need for increased stocks when applications to import goods were being considered. ¹ It is not surprising that such a reminder had little effect. Increases in stocks usually implied high importing. Conservation of overseas funds required low importing. When imports had to be rationed the natural tendency was to issue licences for the minimum quantities which would keep manufacturers and traders in operation, and not to use scarce funds for building up stocks. The volume of imports fell by 12 per cent in 1939. It is most unlikely that stocks in general increased, though stocks of some specific commodities may have increased.

¹ War History narrative 90/1, Ministry of Supply, p. 22.

WAR ECONOMY

IMMEDIATE RESERVE REQUIREMENTS SPECIFIED IN MARCH 1939

Immediate Reserve Requirements specified in March 1939

In 1939 it was quite hopeless to try to build up stocks generally. The emphasis shifted to provision of reserves of some of the more important commodities.

The Supply Control Committee at its third meeting, on 14 March 1939, recommended ² that a six months' reserve of the following imports should be purchased immediately:

Asbestos fibre Tenting material

Gypsum Tin

Lead Tinplate for use in dairying and meat industries and for petrol containers for the Air Department.

Nitrate of Soda

Rock phosphate

Rubber

Sulphur

Of the following goods, a six months' reserve should be purchased as soon as definite particulars could be obtained of the quantities and kinds required:

Bags and sacks

Replacement parts for sewing and weaving machines

Wire

Cardboard

Salt

Soda Ash

Tinplate, for packing

Goods of which a six months' reserve was desirable, but not absolutely necessary, were cotton piece goods and sewing threads.

For most of these commodities it had been left too late to build up a six months' supply before war broke out, even if import controls and shortages of overseas funds had not added to the difficulties.

² **Ibid., p. 46.**

WAR ECONOMY

PACIFIC DEFENCE CONFERENCE ALSO DEALS WITH RESERVE SUPPLIES

Pacific Defence Conference also deals with Reserve Supplies

At the Pacific Defence Conference in **Wellington**, in April 1939, representatives from the **United Kingdom**, **Australia**, New Zealand and **Fiji** dealt at some length with supply problems and, in particular, with the question of reserves. It was decided that services supply representatives should fix the scale of reserves for the armed services and that six months' reserves of civilian requirements was reasonably adequate. This confirmed the need for six months' reserves of essential commodities at least, but in view of the low level of importing it is doubtful whether New Zealand had six months' reserve of many imported commodities at this time or when war broke out.

The conference discussed how the productive resources of the **United Kingdom** could fulfil the requirements of **Australia** and New Zealand. So that the necessary war potential in the **United Kingdom** could be set up, the Australian and New Zealand Governments were asked to make definite estimates in peace of what their requirements would be and to place dormant orders without delay. This request to estimate requirements came two years eight months after the New Zealand Minister of Defence had said in Parliament, '... A committee on which some twenty Government Departments are represented is investigating the problem of supplies in war....' ¹

The conference also considered how the resources of **Australia** could be used to fulfil New Zealand requirements. New Zealand was advised that it would take approximately two years to complete the additional productive capacity and that firm orders should be placed. The United Kingdom delegation gave warning of the increasing preoccupation of British industries with their own government's orders, and encouraged **Australia** and New Zealand to manufacture war equipment.

¹ See p. 31.

WAR ECONOMY

MOST RESERVES INADEQUATE AT OUTBREAK OF WAR

Most Reserves Inadequate at Outbreak of War

Details of the actual reserves accumulated by September 1939 are confused. Many producers established their own reserve stocks of small, inexpensive, but essential items required in production. The majority of reserves were carried by manufacturers or wholesalers, at their own expense, but in some cases the Government gave financial assistance. Some reserves were purchased and stored by Government departments. The stocks accumulated by the Government or with Government assistance comprised, in the main, bulk raw materials. It had been stressed to manufacturers that they were responsible for reserves of their own key materials.

Comment has already been made ¹ on the pitifully small sum of £512,000 set aside for Government purchases of reserve stocks of essential commodities. Moreover, there was a distinct possibility that, even when the Government did import, normal imports of the same commodities might be cut back through exchange difficulties. The Co-Secretary of the **Organisation for National Security reported to the Supply Control Committee on 7 July 1939: ²**

'... the main difficulty which now arises is that no guarantee can be given for funds for the normal importations of current requirements of the articles in the approved list. Generally speaking, it may be said that the £512,000 represents three months' consumption required as a reserve to bring the average three months' stock up to the basis of six months. Therefore in the next six months it is desirable that we import the normal six months' requirements plus three months' extra stock for building up reserves. On this basis the amount involved to build up and protect reserve stocks of items already approved amounts to three times the value of the reserves, that is approximately £1,536,000.'

The pressure on overseas funds was temporarily relieved when Mr Nash, in the same month, succeeded in negotiating sterling credits for imports from the **United Kingdom**,³ but it was too late for the required build-up of stocks before war broke out.

In his first Parliamentary Report,⁴ in 1940, the Minister of Supply said:

¹ See p. 37.

² Memorandum on Industries and Commerce file 55/7, Pt 1.

³ See also p. 26.

⁴ H-38, 1940, p. 2.

‘... the reserve stocks created with the assistance of the Government comprised in the main bulk raw materials. These included amongst others, asbestos, rubber, tin, lead, tinsplate, galvanised iron, gypsum, jute goods, phosphates, sulphur, nitrate of soda, and various other chemicals which are consumed in bulk by our manufacturing industries. To protect the food situation reserve stocks of wheat and sugar were also arranged.’

However, a six months' reserve of an essential supply was the exception rather than the rule when war broke out, and in the first report of the Factory Controller on 11 September 1939, he stated:¹ **‘It is evident that some essential raw materials are in very short supply, and in view of world conditions today this is a matter of serious moment. A list according to my views of priority is being prepared so that in the allocation of sterling credits any curtailment will be placed on materials of lesser importance, even though this involves unemployment. The question is, of course; mainly one of sterling funds, but it is also bound up with the rising commodity prices during times of war and curtailment of sources of supply.’**

Unfortunately it is impossible now to draw a comprehensive picture of stocks at the outbreak of war. In the pre-war years there were no detailed statistics of stock holdings and the uncertainties which exist have been increased by the loss of relevant supply files. ² For some commodities the extent of the building up of special reserves before the war is known, but it is not always clear what had happened to normal stockholdings while these special reserves were being set aside. A brief sketch of the special reserve stocks was given in

Chapter 2, ³ but further information is now given on some of the key commodities.

Corrugated Roofing Iron: The Public Works Department purchased and stored 2000 tons valued at £60,000. This was equivalent to about five weeks' supply of corrugated iron for the whole of New Zealand. Normal stocks carried throughout the Dominion usually amounted to some 5000 tons, or about three months' supply, but, because of air-raid precautions in **Britain**, shipments to New Zealand during 1938 and 1939 had been considerably reduced and stocks had fallen to approximately 2000 tons. Thus all stocks, including the special reserve, were only about four-fifths of normal.

¹ **Factory Controller to Minister of Supply, on Industries and Commerce file 55/8.**

² **The 1946 annual report of the Department of Industries and Commerce (Parliamentary Paper H-44) says on p. 2: 'It is much to be regretted that the great pressure of work and shortage of staff in those years did not permit of thorough compilation and complete assimilation of records and statistics, for these would have greatly enhanced the value of the experience gained....'** War History narrative 90/1, Ministry of Supply, says on p. 1: 'An opportunity was taken when the Department (of Industries and Commerce) later shifted its premises to destroy many of the files without selection'.

³ **See p. 38.**

In his second report on 20 September the Factory Controller stated, concerning galvanised iron, 'there is definitely a shortage at the present time and suppliers have been rationing deliveries. The shortage is due in some measure to the demands of the A.R.P. in England.... For a few months at least I do not anticipate any acute shortage.'

The Public Works reserve was purchased primarily to meet military

requirements and was less than the estimated needs for this purpose alone. In July 1939 the Engineer-in-Chief of the Public Works Department had estimated corrugated iron requirements for 'emergency mobilization buildings' as 2682 tons.¹ However, it was possible from these public works stocks of 2000 tons to make some corrugated iron available to builders to meet cases of extreme hardship.

Chart 22 compares stocks of corrugated iron at the outbreak of war with imports for 1936 to 1941.

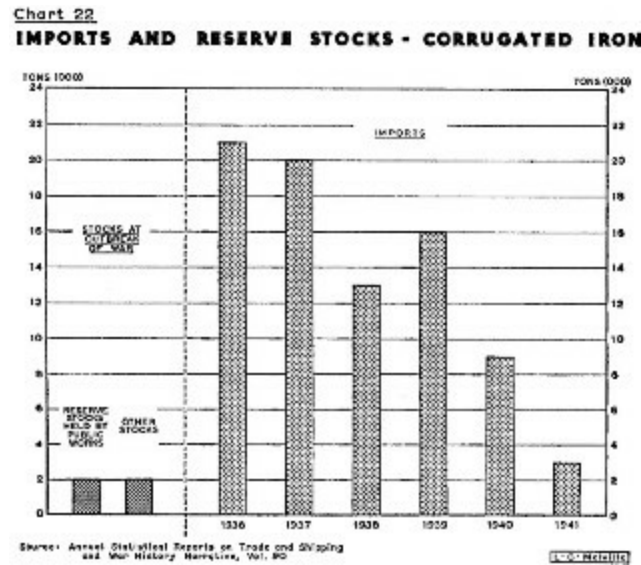


Chart 22
IMPORTS AND RESERVE STOCKS - CORRUGATED IRON

Gypsum Rock: This rock was imported from **Australia** and was essential for the manufacture of cement and plaster. Reserves of 7000 tons, equivalent to about six months' normal usage, were imported and financed by New Zealand companies.

¹ Official War History of Public Works Department, Vol. I, p. 96.

Chart 23 shows imports of gypsum, which increased quite rapidly up to 1940, and compares reserve stocks.

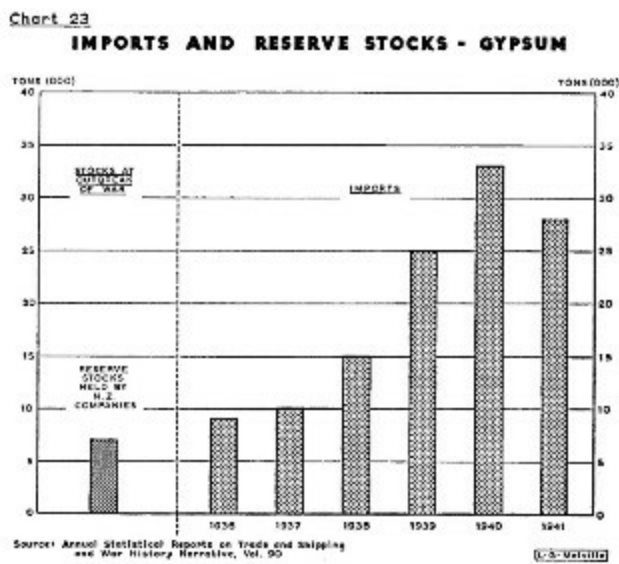


Chart 23
IMPORTS AND RESERVE STOCKS - GYPSUM

Wheat: Stocks and arrangements for Australian supplies were put on a satisfactory footing before war broke out. ¹ The relationship of these stocks and imports to New Zealand production is discussed later in this chapter. ²

Raw Sugar: The Colonial Sugar Refining Company at **Auckland** purchased and stored 15,000 tons of raw sugar, which was equivalent to some two months' normal New Zealand use.

Imports and reserve stocks of raw sugar are compared in Chart 24.

Rock Phosphate: The British Phosphate Commissioners supplied 80,000 tons of rock phosphate to be stored at phosphate works throughout the Dominion. This was equivalent to about four months' normal supply. Except for internal freight and handling charges, costs did not have to be met until the stocks were used.

Chart 25 shows imports and reserve stocks of rock phosphate. It should be noted also that imports of other phosphates declined from over 80,000 tons a year in 1937, 1938, and 1939 to under 35,000 tons a year in 1940 and 1941.

¹ See also p. 38.

Other Commodities: Reserve stocks of corn sacks, woolpacks, calico for flour bags, tinsplate, asbestos fibre, rubber, sulphur and other chemicals, and cream of tartar are also known to have been built up, but generally on a small scale.

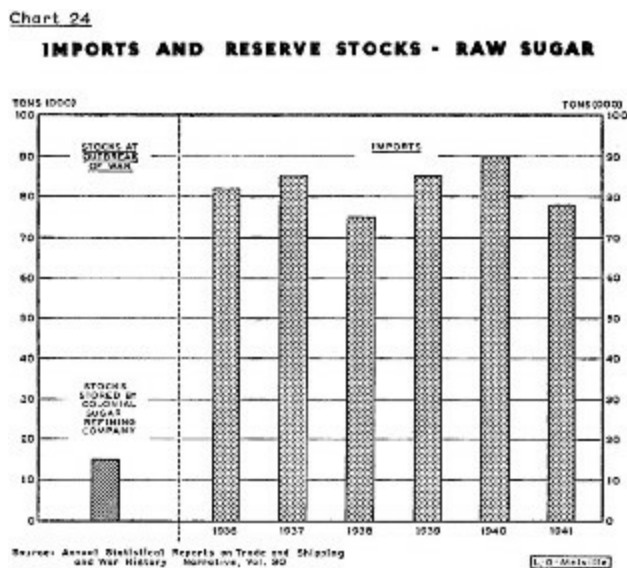


Chart 24
IMPORTS AND RESERVE STOCKS - RAW SUGAR

As has been indicated, these special reserves were no guarantee of an adequate general stock position. In fact the continuance of strict import and exchange controls had made this unlikely. The change in volume of imports is shown in Chart 20 on page 106. The selective nature of import controls might have been expected to avoid interference with the more important supplies, but embarrassing gaps appeared in a number of areas where high priorities would have been expected. The declared policy required import controls to give preference to manufacturers' materials and producers' equipment, particularly where production was regarded as essential; but this selective effect of import controls can easily be over-emphasised. In actual fact, imports of producers' materials fell in value in 1938 and again in 1939, while imports of producers' equipment fell substantially in 1939, and were then 7 per cent below their 1937 level. In the circumstances it is not surprising that the

Factory Controller, in a letter to the Minister of Supply on 21 September 1939, wrote: ¹ ‘... I have previously brought under your notice that the stocks of some essential raw materials are very low....’, and in the same letter, ‘... generally, our factories which are dependent on imported raw materials, are working on very much lower stocks than is generally the case....’

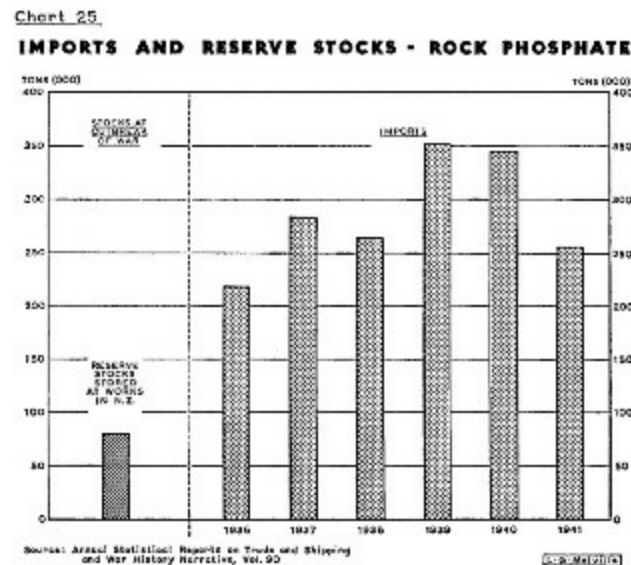


Chart 25

IMPORTS AND RESERVE STOCKS - ROCK PHOSPHATE

Other surprising shortcomings were revealed. For example, the equipment necessary to provide more adequate storage space for perishable exports had not been imported, which seems to indicate that the selective effects of the import control policy did not always ensure that materials and equipment which were regarded as of high priority for war preparations were brought into the country. ²

Some of the special reserves were still in existence in mid-1940. As long as normal supplies were available, the policy was to purchase current requirements and use the reserves in rotation. In this way the reserves were maintained in volume and kept in good condition.

¹ Letter on Industries and Commerce file 54/3. Its purport was to recommend more orderly purchasing of certain materials.

Some were used as buffer stocks, temporary shortages being bridged by issues on loan, subject to replacement. With public realisation of the needs of war, it was to become more expedient politically to use import controls selectively. Later there were to be more orderly purchasing arrangements, which would help to protect stocks of essential commodities.

WAR ECONOMY

THE NATIONAL SUPPLY COMMITTEE'S CONTRIBUTION

The National Supply Committee's Contribution

The work of the National Supply Committee, while not fully effective, for reasons already mentioned, proved most valuable on the outbreak of war. Firstly, all the action to be taken by Government officials had been predetermined and recorded in a Government War Book, together with drafts of the emergency legislation required. Built up in peacetime, the organisation was ready for the declaration of emergency. It enabled New Zealand to pass with comparative ease from peace to war conditions. Secondly, those reserves which had been accumulated helped New Zealand industries to carry on during the early period when overseas supplies were difficult to obtain.

Stocks were generally below normal, except in some essential lines which had received special attention, but it is probable that stocks of many essential commodities were not as far below normal as they would have been without the Committee's jogging of both Government and private enterprise.

WAR ECONOMY

THE FIRST RATIONED ITEM - MOTOR SPIRITS

The First Rationed Item - Motor Spirits

Imports of motor spirits had been a record in 1938, but so had motor vehicle registrations. In fact the number of motor vehicles registered had been increasing so fast that, though motor spirits imports were again a record in 1939, there was a very substantial fall in imports per registered motor vehicle. Consequently, stocks of motor spirits held at the outbreak of war were unsatisfactory. In the circumstances, it is not surprising that New Zealand resorted to petrol rationing from the first week of war, and, thereafter, fluctuations in the supply position were met mainly by changes in the ration allowed to private motor-car owners. The reduction in the ration to private motorists was, at times, most severe. ¹

By way of contrast, **Australia** did not introduce petrol rationing until October 1940. Even then, in deference to considerable public opposition to rationing, there was comparatively little reduction in the amount used by private motorists in **Australia** until April 1941.

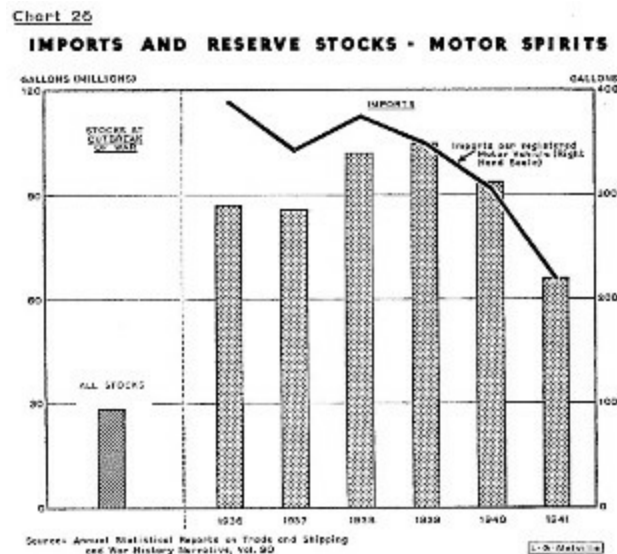
¹ See also

Motor-car tyres were in short supply throughout the war and essential users had first call on them. ¹ The tyre position for the private motorist would have been much more difficult had a better supply of petrol been available to enable him to indulge in a larger amount of running. As it was, the private motorist took his chance for any tyres which were left over from essential uses, and in the latter stages of the war the less fortunate were forced to use considerable ingenuity in patching up old tyres. Some motorists were even forced off the road through inability to obtain tyre replacements, but most were able to carry on with the limited running the rationed petrol allowed them.

A small proportion of private motorists installed producer gas plants on their cars. Others eked out their petrol ration with mixtures containing such unlikely fluids as kerosene and turpentine, but most allowed their pleasure running to be regulated by the petrol ration.

Essential users were kept supplied with petrol, but had to accept rationalisation of the transport industry to conserve precious supplies.

Chart 26 compares imports of motor spirits with stocks held at the outbreak of war.



IMPORTS AND RESERVE STOCKS - MOTOR SPIRITS

¹ See also p. 139 and

Chapters 15 and

WAR ECONOMY

A WINDFALL - THE PORT BOWEN

A Windfall - The Port Bowen

The incident of the *Port Bowen* throws an interesting sidelight on the shortage of refrigerating space, and of materials generally, when war broke out. This cargo vessel of 8000 tons ran aground off the port of **Wanganui** in September 1939, and could not be refloated. She was fitted with refrigerating plant. Following the Court of Inquiry in **Wellington** in November 1939, the Government was successful in acquiring the wreck free of all charges. Using local labour, the majority of whom were men previously engaged in subsidised work, ¹ and with the co-operation of the Public Works and Railways Departments, who built a pier and extended the railway line, the wreck was dismantled.

Large quantities of valuable materials were recovered, including several tons of bronze from the propellers and about 8000 tons of steel plates of various sizes from the hull and bulkheads. The Navy Department took over a lot of urgently required gear, and the winches were removed and put to new uses.

Perhaps the most interesting aspect of this salvage effort was the removal from the ship of a complete refrigerating unit. ²

The following extract from *Hansard* for 30 July 1941 ³ is revealing:

Mr Barrell (**Hamilton**): ‘... We found on that ship a first-class refrigerating plant, complete with many thousands of feet of granulated cork insulation. It was a fully equipped plant. Honourable Members will also appreciate the importance of that fact, coming, as it does, at a time when refrigerating space is of such importance to us.

‘... Ultimately, it was decided to investigate the possibilities of rehabilitating the old freezing works at Kakariki, an excellent building that had got into disrepair over the years, not having been used since

1919. The Minister's Committee was asked to consider the question of installing in the freezing works that valuable plant from the "Port Bowen". The estimated value of the plant was between £23,000 and £25,000. The Minister finally approved of the work, and today we have that establishment almost ready to begin operations in cool-storing butter, meat and cheese.'

Mr Polson: 'Are the electric motors there?'

Mr Barrell: 'Yes, we have everything, and the works are almost ready to commence operations. They will provide approximately 462,000 cubic feet of cool space, which means that we can store 4,075 tons of meat, as well as a considerable amount of butter and cheese in these works.'

¹ Scheme 13.

² See

Chapter 2 for discussion of the need for refrigerating equipment.

³ *NZPD*, Vol. 259, p. 642.

WAR ECONOMY

SUPPLIES FROM THE UNITED KINGDOM FALL AWAY

Supplies from the United Kingdom fall Away

In the immediate pre-war years the **United Kingdom** had supplied nearly half of all goods imported into New Zealand, but, as the war progressed, and **United Kingdom** production became geared to an all-out war effort, many items previously imported by New Zealand were no longer being made. New Zealand had to seek alternative sources or to place more reliance on local production.

Imports from the **United Kingdom** had reached a peak value of close to £28 million in 1937, but then decreased in value each year until 1942, first because of New Zealand import restrictions and then, particularly in the war years, because of the **United Kingdom's** inability to supply. In 1942 their value was only a little above £20 million, but the situation was to improve considerably in the following year.

WAR ECONOMY

SUPPLIES FROM AUSTRALIA

Supplies from Australia

As wartime supplies from the **United Kingdom** fell away, New Zealand turned to **Australia**, where manufacturing potential was expanding rapidly. **Australia** was in fact following the same path as New Zealand, but was many years ahead in her conversion from a predominantly primary producing country to a country with a broad range of productive effort.

As early as 1936, the Supply Committee of the **Organisation for National Security** had recommended that New Zealand should support the growing Australian industries by ordering for defence and war stores. This idea was again supported by the Pacific Defence Conference in 1939, but the Australian delegates pointed out that, if their country was to supply New Zealand's needs, it would be necessary to create additional productive capacity, which would take approximately two years and would have to be supported by firm orders.

To try to speed up supply arrangements, a delegation went to **Australia** in June 1940 and it was agreed that New Zealand would be 'regarded as one of the Australian States in matters relating to requirements for defence purposes and obtainable in **Australia**.' The Australian authorities asked for forward estimates of requirements so that their production plans could be suitably expanded.

However, total imports from **Australia** in the difficult years, 1941 and 1942, were actually below their 1937 and 1938 level. They were to be much higher for the next two years, but by this time United States Lend-Lease supplies were becoming available and the crisis was past.

WAR ECONOMY

THE CRITICAL SUPPLY YEARS, 1941 AND 1942

The Critical Supply Years, 1941 and 1942

As overseas suppliers became more concerned with the wartime demands of their own countries, the supply position deteriorated so far as New Zealand was concerned. Reserve stocks were in most cases inadequate to meet the situation. Shortage of overseas funds now became a secondary consideration and the major problem was to obtain goods from any available source.

This meant, on the one hand, developing New Zealand industries to produce munitions and other war supplies, and, on the other, a general switch from European and Empire sources to **North America, particularly the **United States**. With the emphasis changed to procurement at all costs, rather than examination of the sterling position and its effects on the ability to import, the Commissioner of Supply increasingly made decisions about imports, rather than the Comptroller of Customs or the **Industries Committee**.**

During 1941 an expanding world scarcity of essential raw materials and finished goods, and the need to ensure a share for New Zealand, made it increasingly necessary for Government bulk buying arrangements to take the place of private importing. The organisation set up for the purpose considerably enlarged the functions of the Ministry of Supply. Before long, a large portion of the country's requirements of imports essential for the maintenance of the wartime economy were procured by or through the Ministry of Supply. Within a year or two the Ministry of Supply became, in effect, the largest importer of goods into New Zealand, arranging supplies from the **United Kingdom, **Canada**, the **United States of America**, **Australia**, **India** and **South Africa**.**

With this centralisation of control, New Zealand's wartime supply records should have been comprehensive and reliable, but this is far

from the case. Records, for most commodities, are inadequate. The rapid growth of staff in the Ministry of Supply was a problem. It was necessary to build up quickly from a staff of eighty to 550. Many of the additions were temporary public servants, directed to the Ministry under manpower control.

To add to the difficulties, the keeping of adequate statistical records was abandoned early in the war, when serious staff shortages began to be felt. Some doubt may arise about the efficiency of an import or a supply control which was not accompanied by adequate statistical records as a running check on decisions and achievements. Whether or not this doubt is justified, the supply records which have survived are surprisingly poor.

In 1942 supplies were so short and shipping so scarce ¹ that it was decided to use a system of allocation of shipping space to competing private orders placed in the **United States** and **Canada**. A specially constituted Priorities Section issued certificates of recommendation, according to essentiality for the direct war effort or for civilian wartime needs.

¹ Losses to U-boats were high for the whole of 1942 and for the early months of 1943.

WAR ECONOMY

INCREASING PRESSURE ON LOCAL INDUSTRIES

Increasing Pressure on Local Industries

Pressure for extra production from New Zealand manufacturers increased. Important classes of war goods were made in New Zealand under contracts arranged by the Factory Controller, and controlled through the Ministry of Supply, notably radio, textile, and footwear requirements.

Chart 27 shows changes in the proportion of goods for use in New Zealand which were locally produced.

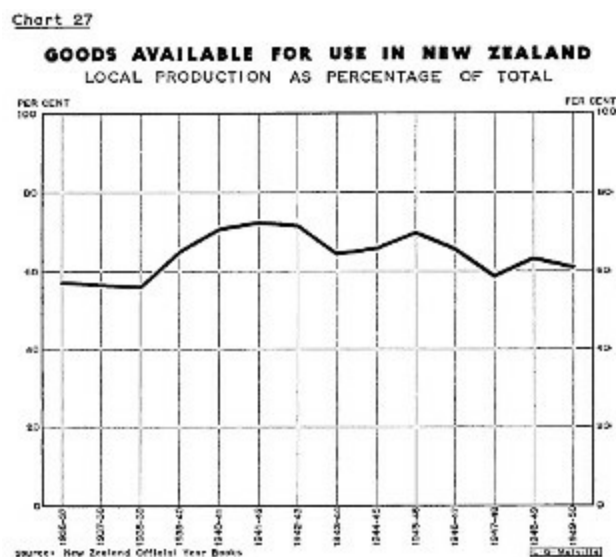


Chart 27
GOODS AVAILABLE FOR USE IN NEW ZEALAND
LOCAL PRODUCTION AS PERCENTAGE OF TOTAL

Before the war, New Zealand producers had been called upon to supply 60 per cent, on average, of all goods used in New Zealand. In wartime, with scarcity of shipping and the inability of traditional suppliers to meet orders, combined with restrictions through import controls on orders of goods which were not considered essential, the contribution made by imports fell rapidly, and for the years 1940–41,

1941–42 and 1942–43, New Zealand producers supplied over 70 per cent of all goods for local use. After 1942–43, United States supplies under Lend-Lease started to have their effect and, for the rest of the war, imports supplied approximately one-third of all goods used in New Zealand, while local production supplied the other two-thirds.

WAR ECONOMY

PRICING FOR NEW ZEALAND PRODUCTION

Pricing for New Zealand Production

Since demand for most commodities exceeded manufacturing capacity, the tender system of placing Government contracts was not suitable and production was arranged by allocating to various manufacturers orders for quantities fixed in the light of their respective capacities and equipment. ¹

In the early stages, prices for production were fixed at a value assessed by the staff of the Commodities Sections, or on the basis of costs submitted by various manufacturers. During 1942 and 1943 Ministry of Supply investigating accountants verified costs from the manufacturers' own records and then negotiated prices. It was difficult to keep up-to-date with this work. As there was not enough staff to investigate all contracts, first attention was given to larger contracts. The problem of costing production for the Ministry was made complex by the high competing demand for production of civilian goods which could not be imported. ²

The Government had taken a stand against profiteering from war contracts but administering departments had to face the fact that in other production lines there was a seller's market and high profits could be made. In many cases, manufacturers not only tended to find civilian production more profitable but were anxious to secure retail outlets to assist their post-war activities.

¹ The Factory Controller had adequate powers, when he found it necessary to use them. Regulation 3 (1) of the Factory Emergency Regulations 1939 (*New Zealand Gazette*, p. 2385) read: 'The Controller may from time to time, by notice to the occupier of any factory, whether or not the factory was in operation at the date of these regulations and whether or not it

is the subject of any licence granted under these regulations, direct that the occupier cease, restrict, or increase the production of the factory or of any branch thereof either generally or in respect of any specified goods or class of goods, or that the occupier produce at the factory or at any branch thereof goods of such kinds, descriptions, types, sizes, quantities, and qualities and in such order of urgency as may be specified in the notice.'

² The problem is more fully discussed in

Chapter 13.

WAR ECONOMY

FORWARD ESTIMATES OF SUPPLY REQUIREMENTS

Forward Estimates of Supply Requirements

We have seen that attention had been given before the war to stocks and supplies of a number of essential commodities. In the early war years there were frequent surveys of reserves, and quite a number of special purchasing arrangements were made to ensure continuity of supplies. All this involved making forward estimates of requirements for many strategic commodities, but it was not until 1942 that forward programming became the general rule. In that year the increasing world scarcity of materials, foodstuffs, and shipping emphasised the need for an orderly disposition of resources among the allied nations. For this purpose the **United States** and the **United Kingdom** established a system of Combined Boards in **Washington**. Much of the production of both countries would henceforth be based on forward planning. Programme planning then became an essential pre-requisite to an elaborate system of rationing or apportioning raw materials and finished products in short supply. It enabled a complete picture of the requirements of members of the allied nations to be obtained in **London** and **Washington**, making possible comprehensive planning of production and the best allocation of the goods produced in the interests of the war effort. Allocations under this system took the place of the priority system previously used for procurement from the **United States**.

The effect on New Zealand was to make it necessary to programme all requirements ahead and to follow these programmes by bulk forward requisitions. This meant that, from 1943, essential requirements from the **United States** had to be purchased by the Government.

Before long **Canada**, **Australia** and **India** also requested forward estimates of requirements from their production, and, in New Zealand, this necessitated a broader and more systematised basis for programming most of the country's essential imports.

As early as June 1940, the Ministry of Supply had been given power to buy stocks for reserve purposes, ¹ and in September 1940 the power had been made more immediate and general when Cabinet approved ² ‘that authority be given to the Minister of Supply to purchase reserve stocks of necessary commodities as and when such may be available’.

The introduction of forward programming and bulk ordering for allied requirements considerably extended the functions of the Ministry of Supply. For a very wide variety of essential commodities it now had to make forward estimates, order in bulk, arrange shipment, reception and storage, allocate supplies to users and retain suitable stocks.

¹ Supply Control Emergency Regulations 1939, Amendment No. 1 (1940/121), p. 431, Reg. 4 (5).

² Cabinet approval of 3 September 1940 on Industries and Commerce file 55/7, Pt 1.

WAR ECONOMY

LEND-LEASE

Lend-Lease

Completion of United States Lend-Lease arrangements was to mark a new era in wartime supplies for New Zealand. As wartime pressures increased, it had become more and more difficult for the **United Kingdom** to fill New Zealand orders. Australian capacity to produce was expanding rapidly, but was, at this stage, unable to cope with any great proportion of New Zealand's requirements. There had been an increasing tendency to turn to the **United States**, but soon New Zealand, in common with other Commonwealth countries, was faced with a serious shortage of dollar exchange and was forced to restrict orders.

It was to cope with this situation that the United States Lend-Lease Act was passed in March 1941. New Zealand became eligible to trade under the Act in November 1941, and a New Zealand Supply Mission was set up in **Washington** to deal with Lend-Lease and cash requisitions. In June 1942 delays were reduced when a **United States Joint Purchasing Board** was established in New Zealand, strengthening **United States** administrative representation here and making it possible to fix, in New Zealand, the eligibility and priority of local requirements. Lend-Lease requests from New Zealand were screened by an 'Allied Committee' of representatives of the Lend-Lease Administration, the Joint Purchasing Board and the Commissioner of Supply.

In 1942 New Zealand imports under Lend-Lease were valued at £11 million out of a total of £54 million of imports for the year. As a result, the volume of imports, which had fallen each year since 1937, now showed a moderate increase, still, however, leaving arrivals at 26 per cent below the average of the three pre-war years. In 1943 Lend-Lease imports were £27 million and total imports £95 million. The volume of imports moved, in this year, to 28 per cent above the pre-war figure. Substantial arrivals of defence materials and equipment from the **United**

Kingdom and increased imports from **Canada** also augmented the total, which was a record not to be equalled again until 1950.

Reciprocal Aid provided by New Zealand under the Lend-Lease arrangements totalled nearly £7 million in 1943, compared with £27 million of **United States** supplies received. There was to be a closer balance in 1944, with Lend-Lease Aid from the **United States** valued at £32 million and Reciprocal Aid provided by New Zealand at £24 million, and in the following two years Reciprocal Aid provided by New Zealand would exceed in value Lend-Lease Aid received from the **United States**.

Nearly 70 per cent of the Lend-Lease Aid received from the **United States** was in the form of direct war materials, but substantial quantities of commodities such as oil, petrol, tinsplate and wire were also received, as well as producers' equipment. Nearly half of the Reciprocal Aid provided by New Zealand was foodstuffs.

One important contribution to production made by Lend-Lease Aid was the supply of considerable quantities of mechanical equipment for farms. For example, over seven thousand farm tractors were supplied in the years 1943 to 1945. Some idea of the significance of these 7000 tractors can be gathered from the fact that, in 1940, there were only about eleven thousand tractors on New Zealand farms. The rapid mechanisation of farming played an important part in extending allied food supplies. Only in this way could farming step up its production to meet wartime demands, in spite of shortages of labour.

Chart 28 shows the accounting values of Lend-Lease and Reciprocal Aid in successive years.

Chart 28

LEND - LEASE AND RECIPROCAL AID

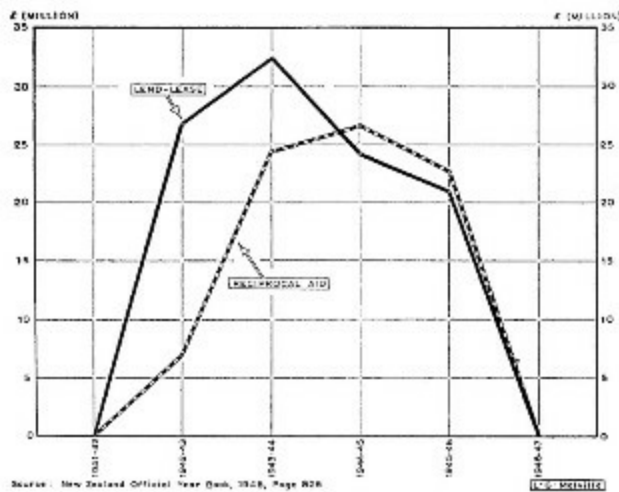


Chart 28

LEND - LEASE AND RECIPROCAL AID

The Lend-Lease arrangements solved many of New Zealand's very embarrassing problems of inadequate supplies of munitions and war stores, and also made available scarce farming and manufacturing equipment. New Zealand's contribution under the Reciprocal Aid arrangements helped maintain the **United States Forces in the Pacific**, but added to pressure for New Zealand farm produce and, in various ways, aggravated the shortage of civilian manpower. These and other effects are discussed later. ¹ Much of the Reciprocal Aid went to **United States** forces in New Zealand, whose arrival in June 1942 had reduced the threat of Japanese invasion.

¹ Chapters 14 and 17.

WAR ECONOMY

RELIEF IN 1943

Relief in 1943

With the substantial volume of supplies under Lend-Lease in 1943 came also record imports from the **United Kingdom, Canada and Australia**. Total importing in that year reached £95 million, of which nearly half was munitions and war stores. This was, in value, 70 per cent higher than imports had ever been before. The worst of New Zealand's supply problems were over.

Chart 29 shows the increase, in 1943, in value of imports from the principal supplying countries.

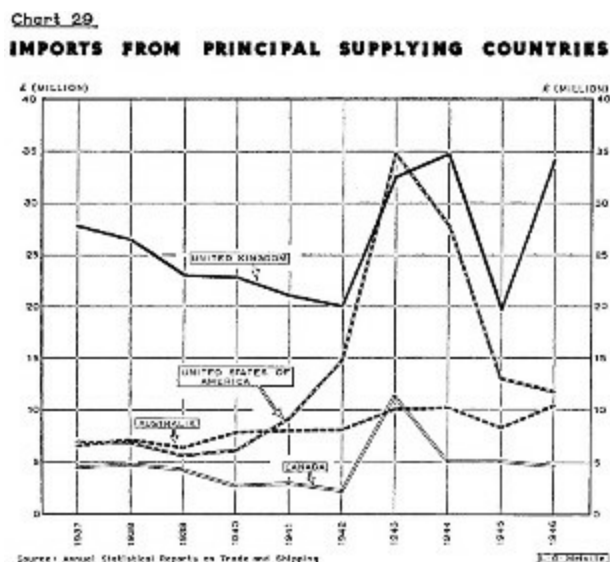


Chart 29

IMPORTS FROM PRINCIPAL SUPPLYING COUNTRIES

WAR ECONOMY

EFFECTS OF IMPORT SELECTION

Effects of Import Selection

Import selection has always been associated, to a greater or lesser degree, with the quantitative restriction of imports which New Zealand has used for the primary purpose of conserving overseas exchange. Restricted imports in wartime, and the need to give priority to defence requirements, put extra emphasis on the selection aspect of import controls.

By 1941, imports were, in volume, only two-thirds of what they had been in 1937. There was some improvement in 1942, but no real recovery until 1943. For many commodities, arrivals were at their lowest ebb in 1941 and 1942.

There were remarkable changes in the types of goods arriving, induced by varying availability overseas as well as by import selection. In the usually insignificant group of 'unclassified' import items it was customary to include munitions and war stores. Consequently the group became anything but insignificant in time of war. Before the war, less than £1 million a year was spent on these imports but, for the year 1943, they were valued at £46 million. This was the peak year. In the following year unclassified imports were valued at nearly £30 million, but in 1945 had fallen to under £4 million.

Many civilian lines had to give way to make room for this upsurge in war requirements. Imports of materials for the building and construction industry started to fall away in 1939 and decreased steadily until, in 1942, arrivals were under half of what they had been in 1938. Imported supplies remained low for the remainder of the war period and would not again reach pre-war levels until 1947.

Imports of materials for farming also decreased after 1939 and, in

1942, reached their lowest point at a little over half of their 1939 level. Recovery here was more rapid, and pre-war levels were reached in 1945.

Manufacturing materials, in marked contrast to other producers' materials, arrived in greatly increased values for the whole of the war period. These imports had reached a peak in 1937, but were at quite high levels in 1938 and 1939. In 1940 they set a new record, being then some 25 per cent higher than any pre-war figure. There was a slight fall in 1941, followed by a significant drop in 1942 of about 10 per cent. This, however, left imports of manufacturing materials in 1942 still 14 per cent by value above the highest prewar figure. In 1943 another record was reached with imports 57 per cent above the 1937 peak. There was a further increase in 1944, and by 1946 the value of imports was twice what it had been before the war. In this fast upward movement under war conditions, manufacturers' materials were unique. Apart from munitions and war stores, the only major group coming anywhere close was producers' plant and equipment, where imports by 1946 reached 87 per cent above the immediate pre-war value.

The high degree of preference given to manufacturers' materials and equipment enabled New Zealand manufacturers to go a long way towards filling gaps in supplies of munitions, war stores, and many types of consumer goods which could not be imported in sufficient quantities because of competing allied demands for them. In some cases it also enabled New Zealand manufacturers to supply new types of goods for export to fill orders from allied countries. ¹

Imports of transport equipment suffered the most drastic curtailment in the war years. Civilian rather than war use was affected, a good deal of transport equipment for military and allied purposes being imported during the war as munitions and war stores. The import group, transport equipment, which stood at over £8 million for each of the years 1937 and 1938, fell to £7 million in 1939 and to under £3 million in 1940. It was to fall further to be under £2 million in each of the years 1942 and 1943, and to remain at low levels for the remainder of the war, not recovering its pre-war position until 1947.

Also seriously affected were imports of consumers' goods which, over the war period, averaged about half of their level in the immediate pre-war years. With transport equipment for civilian use, they took the main brunt of wartime import selection.

¹ See also

WAR ECONOMY

MUNITIONS AND WAR STORES INCREASE TO NEARLY HALF OF ALL ARRIVALS

Munitions and War Stores increase to Nearly Half of all Arrivals

Imports of munitions and war stores, which were under 1 per cent of total imports in 1939, had moved up to nearly half of all imports in 1943. Consumers' goods, on the other hand, were about a quarter of all imports in the immediate pre-war years, but had fallen to one-sixteenth by 1943, illustrating strikingly the effectiveness of wartime supply arrangements that tended to concentrate scarce shipping, scarce funds and scarce overseas production on supplies for war and the means to manufacture such supplies, at the expense of consumers' goods and the less essential types of materials and equipment.

Chart 30 shows changes in types of imports.

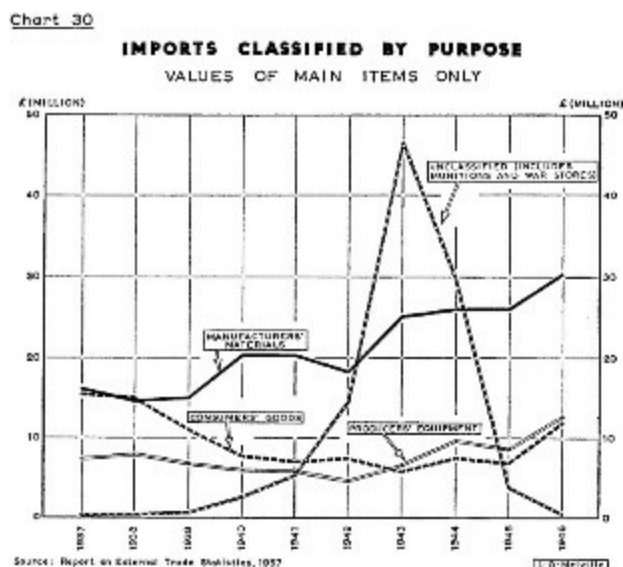


Chart 30
IMPORTS CLASSIFIED BY PURPOSE
VALUES OF MAIN ITEMS ONLY

WAR ECONOMY

EKING OUT AVAILABLE SUPPLIES – THE POWERS OF THE CONTROLLERS

Eking out Available Supplies – The Powers of the Controllers

From the outset, the various Controllers under the Minister of Supply had very wide powers over the distribution and use of goods. The Factory Controller, for example, was given power 'to regulate, restrict and control the use, sale, supply, and distribution and disposal of factory materials, to decide what kinds and qualities and quantities of goods may be made in any factory, and to decide the order of urgency in which goods are to be made.' He also had power to commandeer stocks of materials and to direct any factory to use substitute materials. The Building Controller, besides his function of issuing permits, without which work could not commence, was given power 'to regulate, restrict or control the use, sale, supply and distribution and disposal of building materials, and to direct the use of substitutes.' Similar powers were given to the Mining Controller, the Electricity Controller and the Timber Controller. The Food Controller and the Sugar Controller were specifically given power 'to take any steps necessary to ensure continuity of supply', and equal powers were given to the Wheat and Flour Controller. Besides the usual powers, the Oil Fuel Controller was given a specific power to withhold supplies of oil fuel for any purpose and 'direct that no person shall use oil fuel or any specified oil fuel or kind of oil fuel for any specified purpose if in the opinion of the Controller such action is necessary for the public welfare.' The Medical Supplies Controller was 'to regulate and secure the adequacy and continuity of supply and distribution of medical supplies.'

These were very extensive responsibilities and powers, and in some cases were not fully used. For the most part, the investigation work required to ensure continuity of supplies and their best use fell on the Supply Sections of the **Industries and Commerce Department**, which

were strengthened numerically by special wartime recruitments. The following sketches relating to various commodities give some idea of the activities involved.

WAR ECONOMY

IRON AND STEEL

Iron and Steel

In the immediate pre-war years, New Zealand's principal sources of supply for iron and steel and for steel products were **Australia** and Great Britain. Most arrivals were private imports, requiring, after 1938, an import licence.

As the wartime commitments of the **United Kingdom** industry increased rapidly, from September 1939, supplies of steel and steel products from that source dwindled and soon practically ceased. At the same time, the nature of New Zealand's problem was emerging—to maintain a steady flow of imports of different kinds of steel and steel products averaging from 150,000 to 200,000 tons a year and to avoid, as far as possible, using scarce dollar funds.

Rapid deterioration of overseas supply required the immediate regulation of use in New Zealand. Control over the allocation of most raw materials became the responsibility of the various Controllers, and the duty of rationing supplies of iron and steel fell to the Controllers of the more important industries using these commodities—the Factory, Building, Munitions, Primary Industries and Mining Controllers. A number of notices were issued by the Factory Controller, from December 1939, relating to the sale and use of iron and steel sheets, and a series of notices by the Building Controller restricted the use of galvanised iron and steel for building purposes. In 1941 a Building Control Regulation made it necessary to obtain the prior consent of the Controller to erect a new building containing over half a ton of reinforcing steel or estimated to cost over £2000. Local authorities could not issue permits for dwellings, where corrugated iron was to be used, without the prior consent of the Building Controller.

There were serious delays in supplies from all British countries,

including **Australia**, during 1940. To conserve dollar exchange every effort was made at this time to avoid purchases from **Canada** or the **United States of America**. However, by the end of 1940, it was necessary to seek supplies from the **United States** if the munitions and other essential industries were to be maintained. The position eased a little when 3000 tons of pig iron were purchased from **India** and, in 1941, 36,000 tons of steel billets arrived from the **United States**. Supplementary purchases from the **United States** continued and grew in volume as Australian supplies diminished.

At the outbreak of war, New Zealand's only rolling mills, at Dunedin, were working on a single shift, re-rolling, from imported Australian billets, 350 to 400 tons a month of certain sizes of finished sections for the **Railways Department** and other users. Quantities of rails and special railway material were also obtained from the **United Kingdom**.

In September 1940 the Factory Controller directed that a second shift be worked in the Dunedin rolling mills, a practice which was to be continued until January 1944. In 1941 this was still not enough and, to meet the shortage of building steel, the Government decided, in April, to erect a duplication of the rolling mills, adjacent to the existing privately owned plant in Dunedin. An endeavour was made to build up stocks of steel billets from the imports from the **United States** and **Australia** to feed the increased rolling mill capacity. The plant was duly erected, the machinery, with the exception of special items such as the rollers, being manufactured in New Zealand. It commenced rolling operations in April 1943, but, by October of the same year, the supply of finished sections from overseas had considerably improved and the Government suspended further operations.

Throughout 1941, orders for steel for various essential purposes, including ship repairs, were forwarded to the **United States** by the Ministry for placing through the **British Purchasing Commission**. In March the Lend-Lease Act was passed. New Zealand became eligible for Lend-Lease supplies in November 1941 and soon steady deliveries of iron and steel of various grades were being received. However, it was not until

1943 that Lend-Lease supplies became sufficient to make up for losses from elsewhere.

From the beginning of 1942, procurement policy became more settled. The Minister of Supply was able to arrange for the supply of 50,000 tons a year from **Australia**, provided it was ordered through one New Zealand purchasing agency. The **United States of America** agreed to release a little more than 100,000 tons to New Zealand during the year, while the **United Kingdom** allocated 40,000 to 50,000 tons to meet the balance of New Zealand's needs.

As supplies came to hand they were made available for work which had the approval of the Factory Controller. To protect supplies further, the Iron and Steel Control Notice was issued by the Factory Controller in April 1942, providing that, except with his prior consent, no iron or steel, wrought or cast, could be used for about thirty specified purposes.

As the result of a visit by an Anglo-American steel mission in April 1943, the position of Steel Controller was established and Mr **F. R. Picot**, Commissioner of Supply, was appointed. From January 1944, all persons purchasing steel from merchants for use or for works stocks were required to surrender signed permits from the Controller, the purpose being to keep a record of all steel used or withdrawn from stocks.

Iron and steel imports, with the assistance of Lend-Lease supplies, were in 1943 about one-third higher than before the war and continued quite high into the following year. By May 1944 the steel crisis was over, and the relaxation of controls began in October 1944. In November the position of Steel Controller was abolished. By this time permits were required only for galvanised and black steel sheets. By February 1946 nearly all classes of iron and steel were again being imported privately, subject to import licence.

WAR ECONOMY

NON-FERROUS METALS

Non-Ferrous Metals

The wartime story of non-ferrous metals furnishes a good illustration of the threatened loss in wartime of New Zealand's traditional sources of supply for many commodities. From the very beginning, non-ferrous metals had been among the raw materials whose shortage was most critical. Immediately the war began, the United Kingdom Government had banned all exports of non-ferrous metals, and **Australia had taken similar action soon afterwards.**

Because of the importance of these imports to industry, negotiations to keep supply lines open were carried out at the highest level on a Government-to-Government basis. The results of negotiations were summarised in a 1940 Ministry of Supply report to Parliament: ¹

'... Arrangements have now been concluded through official approaches to the controlling authorities overseas for supplies of non-ferrous metals in their ingot form. In addition, the Dominion depends entirely upon overseas suppliers for semi-manufactured non-ferrous metals such as bar, tube, and sheet, and the supply of these had also to be considered.... It was not until February of this year that any serious interruptions in supply of these semimanufactured non-ferrous metals were experienced, but in that

¹ Parliamentary Paper H-38, p. 4.

month the authorities in the **United Kingdom prohibited all exports of these commodities. This necessitated urgent representations to the authorities in the **United Kingdom** for the largest quota which could be allocated for export to New Zealand in view of the fact that this Dominion has always been very largely dependent on the **United****

Kingdom for these supplies. The Ministry of Supply in the **United Kingdom** has agreed to facilitate deliveries of certain tonnages, and the system has been evolved whereby an authority to export from the **United Kingdom** is obtained on the recommendation of the New Zealand Ministry of Supply.’

As a result of these arrangements, it was decided to ensure that supplies reached the most vital war production by restricting to the Government all overseas purchases of a number of basic non-ferrous ingot metals. Hence copper, tin, lead, and zinc were among the first commodities to be ordered and distributed solely by the Ministry of Supply. Later, aluminium, antimony, brass, gun-metal, magnesium and certain aluminium alloys were added to the list. With some of the non-ferrous metals, a quota, revised annually, was arranged with the exporting countries through the Combined Raw Materials Board.¹ In general, approximately 50 per cent of New Zealand's wartime requirements of processed and semi-processed forms were obtained from **Australia** and most of the balance from the **United Kingdom** and **Canada**.

The use of non-ferrous metals was restricted to essential purposes approved by the Factory Controller.² Specific restrictions were placed on the use of copper and brass sheets, and on nickel chromium wire. The use of zinc for a number of galvanising purposes and for the manufacture of brass castings, or of sheet for decorative and furnishing work, was prohibited without the prior approval of the Factory Controller.

¹ Writing of events after **Pearl Harbour**, J. Hurstfield says on p. 406 of *History of the Second World War, The Control of Raw Materials*: ‘The opportunity and the need now existed for the pooling of the fighting resources of the Allies and for the close co-ordination of their production programmes. In February 1942 the Combined Raw Materials Board was accordingly set up in **Washington**. This was one of the celebrated “two-men boards”, in this case the British Minister of Production and the American chairman of the **War Production Board**, both of them acting through deputies. Combined Raw Materials Board was made

responsible for allocating between the nations of the non-Axis world the available supplies of critical raw materials and for enlarging, as might be necessary and possible, the amounts or the areas under production.'

² The Non-Ferrous Metals Control Notice of 20 May 1942.

WAR ECONOMY

MUNITIONS

Munitions

For most of the early years of the war New Zealand was hopelessly short of munitions. The reluctance of the Labour Government before the war to indulge in warlike preparations, accentuated, from 1938, by shortage of funds, gave her a most unfortunate start. By about 1938, also, it was becoming difficult to find munitions suppliers in the **United Kingdom, as producers there became preoccupied with orders from their own Government. The rapidly expanding Australian productive capacity filled a few gaps, but, here again, there was considerable pressure of domestic requirements, leaving little over for a neighbouring country. Some early assistance was obtained from the **United States**, but imports from this source had to be restricted as dollar funds ran short. Ultimately, from late in 1942, United States Lend-Lease arrangements enabled imports to be stepped up.**

In the meantime New Zealand manufacturers had demonstrated their ability to provide a substantial portion of the requirements of some types of munitions. In the main, however, New Zealand remained dependent on overseas sources. The fact was that, while New Zealand was in a position to train troops and to send them overseas in uniform, if it could be assumed that most munitions would then be supplied to them from other sources, she was not in a position, either from her own manufactures or from what she could import, to supply adequate munitions for her own armed forces either overseas or in New Zealand.

Speaking of the position in March 1942, Wood says: ¹

‘At this stage New Zealand was pressing primarily for aircraft and for equipment for the army.... It was painfully clear ... that New Zealand was utterly dependent on her overseas friends for equipment. Quite apart from her basic industrial weakness, the deliberate policy in the early

days of the war had been to rely on overseas supplies.’

Nevertheless the contribution made to munitions production by New Zealand manufacturing must not be under-emphasised and Wood recognises it. An interesting outside viewpoint on this contribution is given in the following extract from a **United Kingdom** war history: ²

‘In volume, New Zealand's total munitions production was only a fraction of **Australia's**, and its character and function were altogether different. The aim was not self-sufficiency in a wide variety of equipment, which would have been quite impracticable, but rather a surplus of a few stores selected as particularly suitable for production in a country with very limited industrial experience or equipment. In New Zealand there were no government ordnance factories, and the nearest approach to a specialised munitions firm was the **Colonial Ammunition Company**, which

¹ *Political and External Affairs*, p. 223.

² H. Duncan Hall and C. C. Wrigley, *Studies of Overseas Supply* (United Kingdom Civil Series, History of the Second World War), p. 484.

made .303-inch ball cartridges. Apart from this, munitions production was made possible only by the fact that the **General Motors**, Ford and Dominion Motor Companies had established automobile plants which could be used to assemble components made in the various small workshops that constituted New Zealand's manufacturing industry. This, incidentally, was a system which called for very skilled direction at the centre. The problem for the Dominion Government, the **Eastern Group Supply Council** and the United Kingdom Government was to make full use of New Zealand's assets, especially her very intelligent and adaptable labour, without using too much shipping space in the bringing in of raw materials, components and machinery and without setting the country to do what could be done elsewhere more economically. In other words it

was necessary to find stores, the manufacture of which was within New Zealand's capabilities and which would yet be of real value to the Commonwealth as a whole.

‘Unfortunately, during the first eighteen months of war the solution of this problem was left almost entirely to the New Zealand authorities, who made arrangements for the production of small arms ammunition, tracked carriers, mortars, mortar bombs and hand grenades. This was unfortunate, not because the selection was unsuitable or because any opportunity of securing supplies for the **United Kingdom** was lost—during this period New Zealand was fully occupied in meeting her own requirements—but because this production was not at first fitted into the general scheme of Commonwealth supply. The Ministry of Supply did not take full cognisance of New Zealand capacity until the spring of 1941, when the country was visited by a section of the Roger Mission, and by that time an adequate supply of many of the stores which New Zealand could produce had been arranged elsewhere. Hand grenades were a case in point. At the time of the Mission's visit the initial **New Zealand Government** order for 200,000 grenades was nearing completion, and in default of external orders the makers would soon have had to be allowed to revert to civil production. But there appeared to be no general scarcity of grenades, and the most **London** could offer was an order for the negligible quantity of 25,000. As it happened, however, the difficulty was solved by an unforeseen increase in War Office requirements later in the year, which enabled the Ministry of Supply to keep New Zealand grenade makers busy for years to come; and much the same applied to the other stores mentioned above, in each of which New Zealand became one of the leading Eastern Group producers. Dependence on imported components, however, made the manufacture of any but the simplest munitions a precarious business. For instance, once the production of Universal carriers had developed in **North America**, there was clearly very little to be said for shipping components thence to be assembled on the far side of the **Pacific**, and New Zealand production accordingly came to an end in 1943. Similarly, a venture into the radio field proved somewhat unfruitful. In December 1943, the Ministry of Supply asked

New Zealand authorities to supply 15,000 sets, but owing to delays in the supply of American components only 7,170 were ever produced,¹ and those so late that no outlet could be found for them.

‘It was no mean achievement on the part of New Zealand to have produced a sizeable export surplus of carriers, 2-inch mortars, mortar bombs, hand grenades and small arms ammunition in addition to meeting her own needs of these and some other stores, including 3-inch mortars and Sten guns. Still more remarkable, however, were her achievements in aircraft production, though limited to propellers,² and in shipbuilding, which resulted in the completion of a dozen minesweeping trawlers and a number of smaller craft. Many things were done in New Zealand during the war which had never been done before, such as the production of precision instruments and the operation of the complex automatic machines used in the manufacture of fuses.’

New Zealand's main economic contribution to the allied war effort was as a supplier of food. Though she remained, throughout the war, dependent on overseas supplies for most of the munitions she needed, it was no small achievement for the country, with food production to keep up and with so little munitions production before the war, to have made the contribution she did to allied supplies of war equipment.³

¹ ***Sic.* According to New Zealand records 14,589 sets were delivered to the Defence Service Provision Office for shipment.— War History narrative 90/2, p. 39, and Industries and Commerce file 48/8/78. See also p. 168, [note 1](#).**

² **Not limited to propellers. See also**

Chapter 7.

³ Munitions making is also discussed in

WAR ECONOMY

MEDICAL SUPPLIES⁴

*Medical Supplies*⁴

Although the control of medical supplies was more directly the responsibility of the Health Department, the Medical Supplies Controller, appointed on the outbreak of war, was answerable to the Minister of Supply, and the Ministry was involved in the procurement and distribution problems.

To facilitate the accumulation of reserves, some degree of standardisation was necessary, and, with the assistance of the **Pharmacological Committee** of the Medical School of **Otago University**, the 2000 items normally stocked in New Zealand were reduced to a basic schedule of 600 requirements essential to the civilian population and the armed forces.

By December 1940, stocks of essential drugs and chemicals had increased a little, and, with a view to assisting wholesalers to build up a twelve months' reserve, discussions were held with the principal wholesale drug houses. As a result, blanket licences were issued to permit increased imports. At this time supplies from the **United Kingdom** were below New Zealand requirements. Delays in shipping and losses by enemy action added to the difficulties; in one case some £8000 worth of drugs and chemicals were lost in one bottom. Other markets were explored to the fullest possible extent, particularly in **Canada**, the **United States**, **India** and the **Netherlands East Indies**.

By March 1942, stocks of drugs were sufficient to last six months. By then the extension of existing facilities and the erection of emergency hospitals was making heavy calls for equipment, but all were supplied with essential needs at least. Much of the metal and enamel hospital-ware had to come from **Australia**, whose own needs were considerable, and there was difficulty in getting sufficient supplies.

During the next two years, the problems of supply changed so often and so rapidly that the responsibilities of the Ministry had to be extended to include procurement under Lend-Lease, bulk ordering by means of Government-to-Government requests, and sponsorship of private orders. With the advent of Lend-Lease supplies and bulk orders, the Ministry had to supervise distribution. The extremely critical drugs, such as bismuth, anti-malarials, menthol, permanganate of potash, and glycerophosphates, and rubber dental and surgical appliances required close supervision to make sure that they reached users who required them primarily for medical purposes. Many materials in short supply were closely controlled at different times, under the Medical Supplies Emergency Regulations 1939.

There was, as we have seen, an improvement in supplies generally in 1943, but in 1944 distribution of the following drugs was still restricted by the Controller to prescriptive use only, owing, particularly in the case of quinine and bismuth, to a world shortage: menthol, natural and synthetic; caffeine and its salts; quinine and its salts; dextrose; bismuth and its salts and sulfonamides.

The Medical Supplies Section of the Ministry of Supply was disbanded on 1 December 1945.

⁴ Based on information obtained from War History narrative 90/1, Ministry of Supply, and from Parliamentary Paper H-38, *Activities of the Ministry of Supply in Relation to the War*, 1940, p. 9.

WAR ECONOMY

RUBBER AND TYRES

Rubber and Tyres

The stock position of raw rubber and of tyres furnishes yet another example of the spottiness of preparations for war. Good quantities of raw rubber were held in reserve when war broke out, but stocks of motor-car and truck tyres were inadequate. At the outbreak of war New Zealand already had a small but expanding industry producing rubber goods, but no motor-car or truck tyres were manufactured until 1946.

Rubber goods manufactured in New Zealand during the war included milking rubberware, retreading rubber, universal carrier wheels, cycle tyres, jungle boots, industrial hose, components for radio transmitting sets, groundsheets, fruit-jar rings, naval lifebelts, gas masks, aeroplane matting, dough for the manufacture of battery boxes, soles and heels, pram tyreing, a multiplicity of parts for Air Force planes, treading solutions, footwear solutions, cushion gum, general mechanical rubber goods for industrial purposes and gum-boots.

With the advance of the Japanese forces in the **Pacific and the loss of **Malaya** and the **Netherlands East Indies** early in 1942, rubber became one of the most acute raw material problems for the allied nations. The source of approximately 90 per cent of the world's supply of raw rubber had passed under the control of the enemy.**

The crisis found New Zealand in a relatively favourable position as regards stocks of raw rubber, this being a case where the policy of accumulating reserves before the war had been effective. To safeguard the reserves, the use of raw rubber for any purpose was prohibited in April 1942, except with the prior consent of the Factory Controller. ¹

Total stocks in the country, including rubber owned by the mills, reserve stock, and crepe purchased by the Factory Controller, were

sufficient for at least one year's normal usage, but the severe restrictions placed on rubber manufacturers resulted in stocks being adequate for approximately two years. During 1942 the Samoan raw rubber production was allocated to New Zealand by the Combined Raw Materials Board, and, in 1943, negotiations resulted in an allocation of the Fijian production.²

Scrap rubber was brought under control in July 1942³ and could be disposed of only as authorised by the Minister of Supply and Munitions. Agents were appointed throughout the country to receive scrap rubber on behalf of the Minister. Arrangements were made

¹ The Rubber Control Notice, 1942. Gazetted 16 April 1942.

² 241,000 lb arrived from **Fiji** in 1943, also 128,000 lb. from **Western Samoa**.

³ The Scrap Rubber Control Notice, 1942 (1942/220).

between the Factory Controller and the local mills for the extension of the **Auckland** reclaim factory and the establishment of a new one at **Christchurch**. Both these factories came into full production towards the end of 1942, their product being used principally in the manufacture of battery boxes, soles and heels, and B grade retreads. Scrap rubber was also used in part or full substitution for raw rubber wherever possible.

Import restrictions and severe cuts in the licences available before the war for motor tyres had reduced stocks and they were below the usual peacetime level when war broke out. There was an attempt to make up leeway in 1940 and 1941, but it was hampered by difficulties in securing shipping space and by losses through enemy action. The number of tyres received showed no great improvement. It was estimated that, by the end of 1941, stocks were only one-third of normal. Control over the distribution of tyres began in December 1941.

Early in 1942 a decision was made to concentrate on securing supplies of truck tyres rather than car tyres. New Zealand, with its high proportion of rugged country, cannot be well served with railway transport and the proportion of road transport is much higher than in many other countries. The majority of this road transport was engaged in work classified as of extreme importance to the war effort. Moreover, the difficulty in securing supplies from overseas, and the large quantities of tyres requisitioned by the Army from civilian stocks, reduced stocks of truck tyres to a dangerously low level. Supplies arrived from **Australia** during the second half of 1942 but, while these were sufficient to keep heavy transport on the road, on a severely restricted basis, the position remained critical.

Arrangements were made for improved supplies of truck tyres, mainly from **Australia**, and, in 1943, tyres and tubes received from **Australia** were valued at £445,000 compared with £145,000 in the previous highest year. Imports of these items from the **United Kingdom** had fallen away drastically in 1942, and the Australian increase, even when supplemented by some extra supplies from the **United States**, was not sufficient to make up the leeway.

To give some idea of the stringency of restrictions on the use of motor-car tyres, the normal demand for car tyres was roughly 320,000 per annum,¹ whereas issues under permit were approximately 20,000 in 1942 and 46,000 in 1943.

The various controls associated with rubber and goods made principally of rubber had to be enforced from dire necessity. In general, the needs of the armed services, essential civilian transport, the dairy industry and other important users were met, but this was possible only by careful rationing of available supplies.

¹ 190,000 imported as tyres and 130,000 as tyres fitted to cars. There is some further discussion of the wartime troubles of the private motorist in

Chapters 15 and

Gumboots became subject to strict rationing to protect supplies for the dairy industry and it was, for a time, almost impossible to get them without proof of ownership of at least twelve cows. ¹ Local production of gumboots was increased considerably after 1940 and, by 1945, reached 500 pairs a day. This was equivalent to over half the pre-war rate of use and, with such supplies as could be imported, enabled the needs of dairymen and others to be met fairly well.

Stocks and rationing of gumboots provided an interesting example of a wartime communications breakdown. Purchasing and accumulation of stocks was under the control of the Ministry of Supply. Rationing to users was arranged by the **Department of Agriculture**. With increasing local production, stocks became unnecessarily large, and it was decided to relax rationing so that an increased range of users could be supplied. Due to inadequate communications, the **Department of Agriculture** continued stringent rationing for some time after this decision was made.

Chart 31 summarises the rubber supply situation.

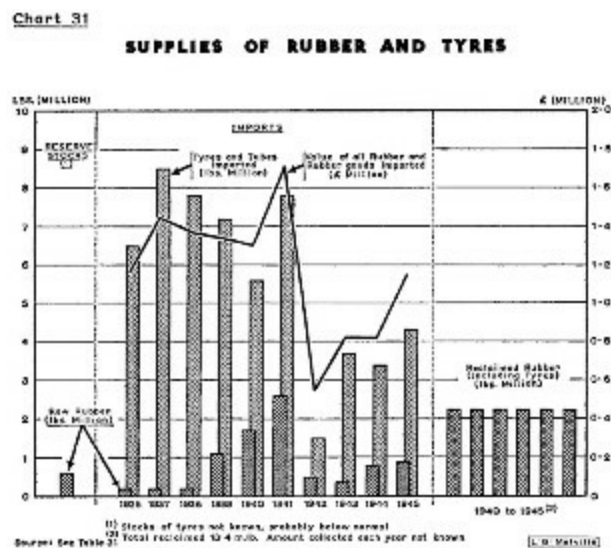


Chart 31
SUPPLIES OF RUBBER AND TYRES

¹ Or some equivalent claim to priority.

Wartime shortages of rubber focussed attention, in a number of countries, on synthetic rubber production and on plastics generally, as substitutes for natural rubber and other scarce materials. The post-war years were to see many useful applications of this development.

WAR ECONOMY

WHEAT AND FLOUR

Wheat and Flour

Throughout the war, strenuous efforts were made to maintain adequate reserves of essential imported foodstuffs. Arrangements with regard to wheat, which had to be imported in substantial quantities to augment New Zealand production, furnish a good illustration of one of the more successful schemes.

The satisfactory New Zealand supply position for wheat was attributable, in the early stages, to the precautions taken by the **National Supply Committee** prior to the outbreak of war. Arrangements had been made with the flour millers to carry additional stocks of wheat.

1

New Zealand wheat production was boosted by a guaranteed price and it was possible to import substantial quantities of wheat from **Australia** at favourable prices.

New Zealand's requirements of wheat were estimated, in 1939, at nearly ten million bushels a year, but were to rise to over thirteen million bushels a year by 1945. Extra demands for flour, as a result of some other foods being rationed, and the loss of supplies of alternative grains, such as rice, sago, and tapioca, contributed to the extra need for domestic use. Wheat requirements for poultry also more than doubled as imported feeds such as barley, maize, bran and pollard became unobtainable from **Australia**, and wheat had to be used in their place. **Australia** placed an export embargo on bran and pollard in November 1940.

New Zealand production of wheat increased considerably during the war years but was at no time large enough to avoid the necessity for substantial imports. In most years, well over half of New Zealand's

requirements were imported.

Towards the end of the war, arrangements were made to obtain extra wheat from **Canada** under Mutual Aid. Some two and three-quarter million bushels were so landed and a further nearly two and a half million bushels were received after hostilities ceased, and paid for at the ruling rate. About one million bushels of this wheat went to the poultry industry.

In **Canada** there was a shortage of sacks and, for the first shipments, they had to be provided from New Zealand. The cost of

¹ See also p. 38.

bagging was heavy and the loss of time in loading too great. **Canada** requested that bulk cargoes be accepted. No wheat had ever been landed in New Zealand in bulk, and ports were not suitably equipped. The two **Auckland** mills, however, had grain silos for storage. A scheme was devised for unloading the wheat with coal grabs straight into elevated tanks under which lorries could run for loading by chute. Lorries were converted to carry wheat in bulk, and the scheme proved so successful that the **Auckland** mills thereafter preferred their wheat in bulk.

Chart 32 shows sources of New Zealand's wheat supply.

Chart 32

WHEAT SUPPLIES

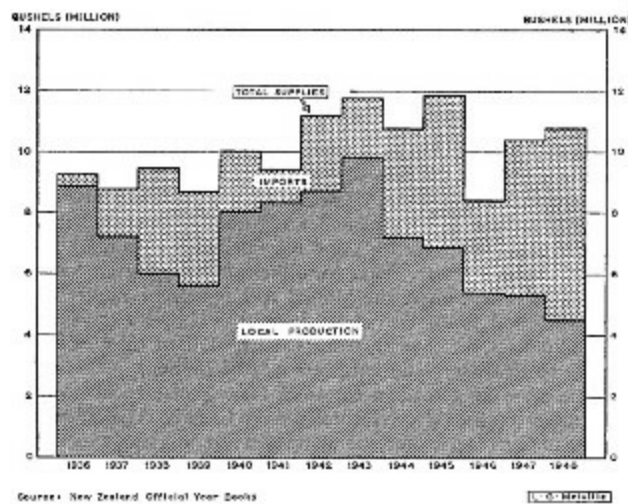


Chart 32

WHEAT SUPPLIES

The supply of edible grains was adequate at reasonable prices during the war years, and it is significant that it was not until after the war—in May 1946—that the extraction rate for flour in New Zealand mills was raised. The extraction rate had been about 73 per cent. In May 1946 it was raised to 80 per cent,¹ and this only when wheat prices reached high levels as the result of a combination of poor harvests and extensive commitments by allied nations for the relief of hitherto occupied and enemy countries. The change for

¹ The Flour Extraction Control Notice, 1946. Gazetted 26 April (1946/60).

New Zealand meant that, instead of extracting about 73 tons of flour for every hundred tons of wheat, as had been done before and throughout the war, the millers were now required to extract 80 tons and so use less wheat in making the flour needed. By way of comparison, the extraction rate in the **United Kingdom** had been fixed much more severely, at 85 per cent for most of the war, and was raised in 1946 to 90 per cent.

New Zealand was well supplied with wheat during the war years. Some countries would have regarded her low extraction rate throughout

the war, and her practice of feeding so much wheat to poultry, as evidence of over-supply to the extent of waste. There was, in fact, some criticism by the **Combined Food Board** and its successor, the **International Emergency Food Council**, which were responsible for the allocation of allied wheat supplies and had to approve shipments from **Australia**; however, New Zealand usually got the quota she asked.

WAR ECONOMY

CANADIAN MUTUAL AID

Canadian Mutual Aid

Canadian Mutual Aid came later in the war than Lend-Lease, an agreement between the Governments of New Zealand and **Canada being concluded in June 1944. Imports from **Canada** had fallen from nearly £5 million in 1938 to under £2½ million in 1942, but were well over £11 million in 1943 and remained over £5 million a year for the rest of the war. Some £6 million of imports were received into New Zealand under the Mutual Aid agreement, mostly in the years 1945 and 1946. The wheat mentioned above ¹ was valued at £1·2 million and direct war materials at £3·7 million, the next largest item being machinery and hardware at £0·4 million.**

There were no Canadian forces in New Zealand and no other opportunity to provide reciprocal aid to **Canada. The substantial balance in **Canada's** favour was written off after the war, and Mutual Aid represented a very generous contribution by **Canada** to the war effort.**

¹ p. 142.

WAR ECONOMY

RECLAMATION OF WASTE

Reclamation of Waste

With supplies of materials generally short, it became important to salvage and use waste materials wherever possible. A National Council for the Reclamation of Waste Material was set up by the Minister of Supply in June 1940. The Council organised 110 volunteer committees and, by various means, was responsible for collecting over 27,000 tons of waste paper for use by the paper and board mills, 5000 tons of waste rubber, including half a million used car and truck tyres, over 300,000 lb. of cleaning rags for the armed services, over 5,000,000 bottles and glass containers, and 2000 tons of non-ferrous metals and cast iron. Much of this waste material was sold to private industries, and the proceeds given to Patriotic Funds. Arrangements ran smoothly, though there were occasional difficulties about transport; waste material, having a comparatively low value for bulk, did not receive a high priority at a time when transport was scarce.

The return of waste rubber back into supply channels was the greatest contribution by the Council, the amount collected equalling in weight all the rubber usually imported in the form of raw rubber and tyres over a period of eighteen months. So great was the need for tyres that the Government asked for all tyres collected to be inspected when received at depots. If fit for repairing or retreading they were to be sorted out, reconditioned and sold to permit holders only, or to firms or persons engaged in essential war work. In cooperation with garages and retreaders, thousands of second-hand tyres were repaired, classified as to possible mileage, priced and sold to essential users. Farmers' needs for tyres for trailer vehicles were also supplied in large numbers by these means.

Over £50,000 was paid to the **National Patriotic Fund Board** from the proceeds of sales of reclaimed materials.

WAR ECONOMY

THE VITAL STORY OF SUPPLY

The Vital Story of Supply

Supply in time of war is absolutely vital, and this chapter should rank as one of the most important in the book. It is a pity it could not have been one of the more satisfying chapters, but in fact it contains many gaps which no amount of research at this late stage can fill.

Much of the information contained here is built up from incomplete basic information. Adequate statistics were not kept, and many supply files, which should have been available, have been destroyed.

The short-run nuisance of having to keep statistical records of administrative action is obvious to all. The long-run hopelessness of continuing to make administrative decisions without the benefit of such records should be equally obvious. It is for this latter reason that most departments have systematic up-to-date summaries of decisions made and of the resulting action, however strong the pressure of administrative work on staff may be. It would have been nothing short of miraculous had the Ministry of Supply been able to function efficiently without proper statistical records. The loss of relevant files makes it impossible now to discern whether or not a miracle did occur. In any event this writer strongly recommends against expecting one on any future occasion.

Outstanding in the wartime supply story were the bad start given by shortages of overseas funds in the immediate pre-war years, the inability of a private enterprise subject to import and exchange controls to create adequate reserves before the war, and the apparent neglect by the Government to set aside adequate funds for the purpose until too late. There were some conspicuous exceptions where reserves were built up.

Then came the first three difficult war years, with overseas supplies

hard to get and New Zealand manufacturing playing a brave part in filling some of the shortages. Munitions were still quite inadequate, in spite of New Zealand's expanding production of a range of small arms. Relief came in 1943 with the full flow of Lend-Lease goods and with improved supplies from other sources. Munitions and other war supplies were now making up nearly half of all imports. Other supplies, particularly of consumer goods, would have to wait till later for their relief.

In the supply story, luck played no small part. When New Zealand failed to prepare for a complete disruption of shipping, none occurred; when she was without sufficient munitions to repel an invader, no enemy reached her shores. For these things we should be extremely grateful, but they give us no real cause for pride.

WAR ECONOMY

CHAPTER 7 – MANUFACTURING UNDER WAR CONDITIONS

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WAR ECONOMY

EMPLOYMENT IN MANUFACTURING

Employment in Manufacturing

IN WAR, New Zealand's still immature manufacturing industries were called on as never before to provide increased output and new products to fill supply gaps. Not only was an extensive range of war equipment produced for the first time in New Zealand, but also many essential consumer goods, no longer available in sufficient quantities from traditional overseas suppliers, had to be made locally.

To give a general impression of the stage of industrial development in New Zealand in 1939, there were then six persons employed in manufacturing for each 100 of the population, compared with eight in **Australia** and fourteen in the **United Kingdom**.

Before the war New Zealand manufacturing had a somewhat chequered career, though showing an underlying tendency to increase in relative importance. Most industries had been hit hard by the economic depression of the early 1930s, and it was not until 1935–36 that the labour force in manufacturing was built up again to what it had been in the pre-depression year, 1929–30. Nearly 83,000 people had then been employed in manufacturing, but by 1931–32 this number had fallen to 69,000.¹ This was the worst year of the depression. There followed a slow recovery, which gathered strength. The labour force reached 79,000 in 1934–35, and 87,000 in 1935–36. The 1934–35 figure was still below 1929–30 and 1935–36 was only 4000 above it. Two years of rapid growth followed. In 1936–37 there was an increase of 10,000, and in 1937–38 a further increase of 6000, bringing the numbers employed in manufacturing up to 102,000. This was 23 per cent above the highest pre-depression level.

¹ Figures used here are taken from the 1947–49 *Official*

Yearbook. They have since been revised as a result of a change in coverage of industrial production statistics, but these are the figures which were available and which provided the basis for wartime thinking. They include generation and supply of gas and electricity, and the logging operations of sawmillers, all of which were transferred to other sectors after 1951–52.

Manufacturing was then affected by the depressive influence of the 1938 reduction in overseas earnings. Between 1937–38 and 1938–39 its labour force increased by only 200. But, for manufacturing, the 1938 recession was to be a blessing in disguise. It provided the Labour Government with a new and more effective means of nurturing secondary industries.¹ The rapid fall in overseas assets forced the Government to take drastic action to correct the trade unbalance. It decided on exchange controls and quantitative controls over imports, accompanied by an import selection policy which gave a high priority to materials and equipment for New Zealand producers and a low priority for many manufactured imports. As a result, manufacturing entered the war with a very high degree of protection against outside competition.

In some industries, particularly those concerned with metals, the diversification resulting from the high level of protection against imports considerably increased the need for skilled labour, and there were some staffing difficulties before the war, in spite of the quite large pool of unemployed labour still available. Special training schemes were started to provide suitable labour, and some skilled labour was recruited overseas, but not all the gaps could be filled.

The metalworking industries, with the clothing industries, were to bear a particularly heavy load in providing war stores, but most other industries were also affected. The war made ever-increasing demands on many branches of manufacturing.

Of one important group, engineering, shipbuilding and repair, the **National Service Department** wrote:²

‘During the war years the industry was called upon for a tremendous

war effort, which included the manufacture of wireless sets, Sten guns, Bren-gun carriers, bombs, grenades, fuses, aeroplane-fuel tanks, water-bottles, steel helmets, wire nails, barbed wire, ammunition, batteries, agricultural machinery and implements, the manufacture and maintenance of machinery used in essential production and services, the repair of vehicles and equipment from the Pacific War Zone, the building and repair of aircraft, repair of ships, the fitting of defensive armament and protective equipment to ships, and the building of minesweepers, Fairmile patrol boats, tow-boats, steel tugs, powered lighters, and barges of various types. In addition, it continued to meet civilian requirements of high priority.'

The first three war years were years of quite rapid expansion in manufacturing employment. The labour force increased by 6000 in the first year, 5000 in the second year, and 3000 in the third year,

¹ The **Labour Party** manifesto for the 1935 General Election included 'the fostering of secondary industries'. Quoted by J. T. Paul in *Humanism in Politics*, p. 174.

² H-11 A, Parliamentary Report of **National Service Department**, 1946, p. 54.

to reach 117,000 in 1941–42. This was an average growth of 5 per cent a year. But manufacturing was now being affected by the faster rate of mobilisation which followed the entry of **Japan** into the war in December 1941. Losses to the armed forces were, for a time, more than made good by recruiting extra women and older persons, but, in 1942–43, there was an overall decrease of 3000 persons. This, however, was the only war year in which the numbers engaged in manufacturing declined.

When the lessening of the threat of invasion made it possible to reduce the size of the home army, numbers employed in manufacturing increased again. By 1944–45 there were 122,000 and, in the last war

year, 1945–46, over 128,000, which was some 26,000 above the immediate pre-war level.

Over the seven years between 1938–39 and 1945–46, the manufacturing labour force increased by a quarter, an average growth of $3\frac{1}{4}$ per cent a year, which compares with a population increase of a little over 1 per cent a year and would have been considered fast under much less difficult conditions.

Chart 33 shows changes in numbers employed in manufacturing over the depression, the pre-war, and the war years. It is apparent that recruitment for the armed forces caused only a temporary setback in the upward trend of manufacturing employment. In this, manufacturing is unusual; most groups were much more severely affected. So great was the pressure of extra wartime demand that manufacturing remained seriously short of labour, in spite of the fact that its work-force grew faster than in most other groups.

WAR ECONOMY

NEW DEMANDS FOR MANUFACTURED GOODS

New Demands for Manufactured Goods

Wartime demands for munitions and war stores, together with the growing need to supply essential commodities which could no longer be imported, required considerable diversion of manufacturing resources from other production. The readjustments and delays involved in this diversion tended to slow up the overall rate of manufacturing expansion. The metalworking industries, in particular, had to become much more versatile in order to meet the very urgent needs of war at a time when many of New Zealand's usual suppliers were too hard pressed to come to her assistance.

New Zealand industries turned to the manufacture of mortars, shells, grenades, anti-tank mines and Tommy guns. Small-arms ammunition had been manufactured in New Zealand before the war, but much higher outputs were now required. Bren-gun carriers and light armoured vehicles were produced in considerable numbers. Aircraft frames and parts were made and light tanks and aircraft assembled. These calls on New Zealand manufacturing were not unforeseen. It had become apparent as early as 1938 that many **United Kingdom** suppliers were going to be too busy to attend to New Zealand's requirements of military equipment.

PERSONS ENGAGED IN MANUFACTURING

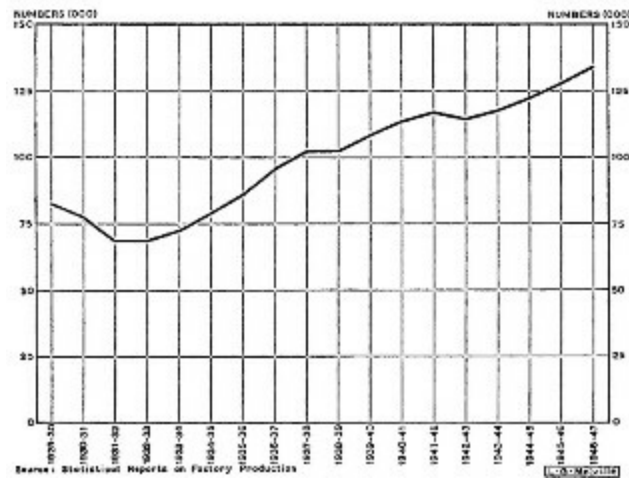


Chart 33

PERSONS ENGAGED IN MANUFACTURING

Heavy calls were made on the clothing industry for military clothing. Boots, clothing and blankets for the New Zealand armed services were produced in New Zealand. The necessary industries had been in existence before the war; they now had to adjust their organisation to the making of military requirements.

There was an infant shipbuilding industry in New Zealand before the war. It had to come rapidly to maturity under the heavy demands made on it for war needs. Minesweepers, patrol vessels, barges and tugboats were built, and there were increasing demands for repairs to warships and merchant vessels.

Imports of farm implements and plumbing supplies declined, and the New Zealand metal industries had to turn to the production of these and other requirements to fill the gap.

Apart from the usual processing of farm products, the food industries were called on to meet special orders for manufactured foods for the United Kingdom War Office. The commodities required were mainly canned meats, service biscuits, chocolate, oatmeal and processed cheese. During the war, goods to the value of over £6 million in New Zealand currency were supplied in fulfilment of War Office contracts. This was in addition to the bulk purchases of farm products arranged in

the early days of war by the United Kingdom Government.

The wide variety of goods supplied, under Reverse Lend-Lease, for the **United States Forces** in the **Pacific** included many manufactured goods, and, by arrangement with the **Eastern Group Supply Council**, a substantial manufacturing programme was undertaken to supply goods required by other allied forces. Radio transceivers ¹ were the most important item ordered by the Council, but many other manufactured goods were sent.

The upsurge of defence construction work accentuated the shortage of building steel and required extra output from the rolling mills in Dunedin. Many other building materials had also to be made in New Zealand.

Rubber goods industries before the war were increasing their output, but were still too insignificant to be shown separately in factory production statistics. After the Japanese conquests of rubber-producing countries early in 1942, imports of rubber goods fell away drastically and New Zealand production had to be stepped up wherever possible. Local output increased in value from £200,000 in 1939–40 to £1,400,000 in 1945–46. With raw rubber imports severely curtailed after 1941, reclaimed rubber became an important link in the production chain. ² A reclaim factory was set up at very short notice to provide rubber for retreads, soles, heels, gumboots and canvas shoes. The need for rubber goods became so urgent that factories had to accept rigid restrictions on their range of products to ensure that scarce rubber went only into the most urgently needed goods.

One important new rubber manufacture was gumboots. Imports fell from an average of about 240,000 pairs before the war to only 24,000 pairs in 1942. Severe rationing became necessary ³ and New Zealand manufacturers had to step in and try to fill the gap. By 1945, production was at the rate of 125,000 pairs a year, enabling the most urgent needs of dairymen and others to be met fairly well, with the assistance of the reduced supplies from overseas.

These were just a few of the extra wartime demands on New Zealand manufacturing.

¹ A general purpose transmitter and receiver.

² See also p. 145.

³ See also p. 141.

WAR ECONOMY

DIFFICULTIES IN NON-ESSENTIAL INDUSTRIES

Difficulties in Non-Essential Industries

As wartime pressures increased, reducing the availability of manpower, and still further restricting the range of imported materials and equipment, it became increasingly difficult for those industries which were engaged in making luxury or non-essential lines to maintain their production.

An indication of increasing wartime difficulties, especially in non-essential industries, was given by the Department of Industries and Commerce in its 1941 annual report: ¹

‘To some extent the quantity of goods produced has been conditioned not by the consumer demand, but by the adequacy of the supply of raw materials required in the processes of manufacture. As regards the demand for domestically manufactured goods, under the operation of the Import Control Regulations this has shown an increasing tendency as stocks of similar lines of previously imported goods have become non-existent. On the production side, manufacturers appear to have received reasonable supplies of raw materials, although in some cases these have been inadequate to enable the demand for finished goods to be fully met. On the other hand, certain other factors affect production, the chief of which is the shortage of skilled and even casual labour, so that in some cases the reduced staffs now available would be unable to cope with greater quantities of raw materials.

‘Production has been limited to some extent by the amount of sterling or dollar funds available, which is unavoidable. Certain luxury trades have felt this restriction most. In general, the effects have not proved unduly severe.

‘Unfortunately, as the year progressed, the shipping position

deteriorated, and the non-delivery of orders placed by manufacturers has affected production. This difficulty, combined with the difficulty involved in obtaining export licences from overseas countries, has placed a limit on expansion through resulting shortages in supplies of raw materials. Overseas prices of most raw materials continue to show substantial increases. Plant for expansion purposes is limited, as the emergencies of the war situation make it imperative that plant of a nature essential to the maintenance of output in non-luxury lines only is imported. Factories engaged in the production of military requirements for the most part worked extended hours. In industries not directly concerned with the war effort output, having regard to existing conditions, has been surprisingly well maintained.'

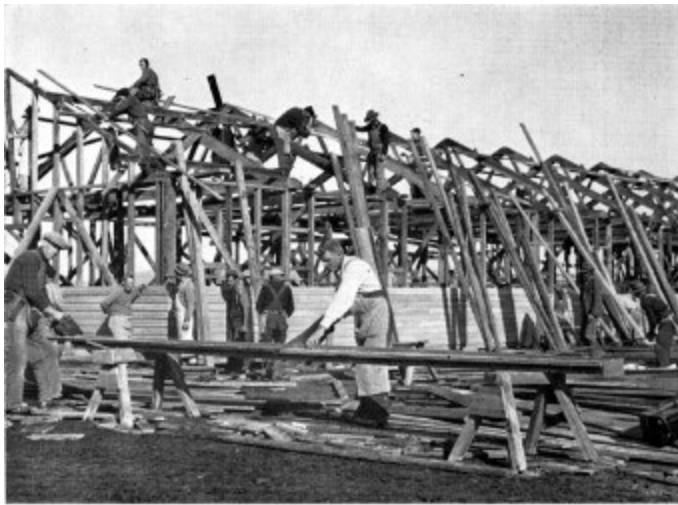
¹ Parliamentary Paper H-44, 1941, p. 6.



DEFENCE CONSTRUCTION
Levelling the site at Waiouru Camp in August 1940

DEFENCE CONSTRUCTION

Levelling the site at **Waiouru Camp** in August 1940

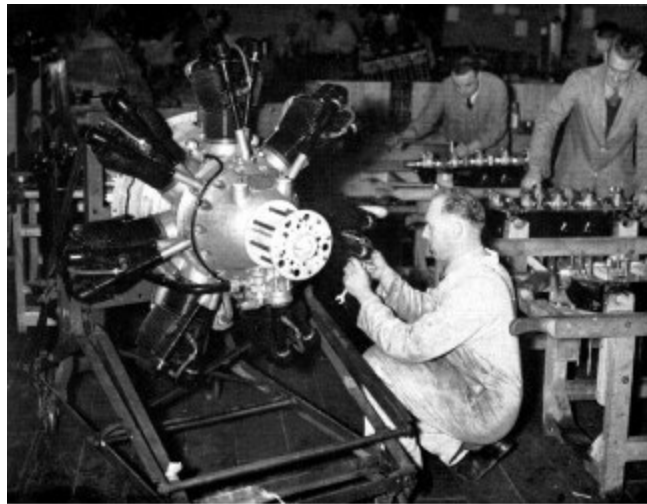


CAMP BUILDINGS

Carpenters at work on a dormitory at Waiouru in September 1940

CAMP BUILDINGS

Carpenters at work on a dormitory at [Waiouru](#) in September 1940



AIRCRAFT ENGINES

Assembling engines for training aircraft

AIRCRAFT ENGINES

Assembling engines for training aircraft



AIRCRAFT ASSEMBLY

Assembly of De Havilland training aircraft in a Wellington factory

AIRCRAFT ASSEMBLY

Assembly of De Havilland training aircraft in a Wellington factory



MUNITIONS MAKING

Modern small-arms were produced in considerable quantities

MUNITIONS MAKING

Modern small-arms were produced in considerable quantities



WAR PRODUCTION

Production of Bren carriers in a motor-car assembly plant

WAR PRODUCTION

Production of Bren carriers in a motor-car assembly plant



SPECIAL WAR INDUSTRIES

A 100-ton press stamping out steel helmets for the Home Guard and E.P.S.

SPECIAL WAR INDUSTRIES

A 100-ton press stamping out steel helmets for the Home Guard and E.P.S.



MANUFACTURE OF WAR EQUIPMENT
Trailer fire pumps for the Far East forces

MANUFACTURE OF WAR EQUIPMENT

Trailer fire pumps for the **Far East** forces

One of the failings of import discrimination against goods regarded as non-essential is the tendency for local production to fill the gaps and to concentrate unduly on the very non-essential goods against which import restrictions discriminate. The imposition of import controls does nothing to change the demand; it merely cuts back supply, and, if demand has enough money backing, local industry will try to fill the resulting supply shortage. Demand may then be frustrated at another stage, if materials and equipment to make the non-essential lines become in their turn restricted imports. Under war conditions, non-essential production may also become short of labour, but, if demand is still high, it often remains strong enough financially to bid successfully for labour, unless direction of labour is invoked in favour of essential industries. Even then, the non-essential industry may find ways to carry on if demand raises the price for its products high enough.

Essential and non-essential are not clearly defined concepts. Tobacco processing, for example, was one of the industries declared essential. ¹ The whole process of selection in fact tended to be short-term and arbitrary in its application, but was no doubt justifiable under the extreme pressures of war conditions.

Dealing with industries not declared essential, the **National Service**

Department gives the following list: ²

Beverage industries	Leather-goods manufacture (certain classes)
Confectionery manufacture	
Finance	Recreation, amusement, and sport
Fur dressing and manufacture	
Insurance	Wholesale and retail trades
Land, estate, and other agencies	Miscellaneous industries and services

Of these industries the Department wrote:

‘These industries and services all play their part in the economy of the Dominion and in the life of our people, and have varying degrees of importance. It was not necessary, however, to grant them the protection of a declaration of essentiality, as in practically all cases the production or service could be curtailed if necessary without impeding the war effort. It was the aim of the Department throughout, in the administration of manpower controls in these industries and services, to permit them, as far as possible, to maintain sufficient staff to continue to function economically and thus be in a position, after the war, to rehabilitate employees who had entered the Forces. The Department

¹ See also p. 174.

² Parliamentary Paper H-11 A, Report of the **National Service Department**, 1946, p. 57. Farming was another major industry not declared essential, but it was, nevertheless, accorded priority for employment purposes.

assisted these industries and services from time to time by arranging the release of home servicemen and home servicewomen from the Forces where such action was deemed to be warranted. Armed Forces Appeal Boards, in dealing with appeals, also permitted the retention from military services of limited numbers of Category “A” men holding key positions and a more substantial proportion of non-Category “A” men.

The engagement of part-time labour, married women, and elderly persons was a prominent feature of the employment situation in these industries and services during the war period.'

Many non-essential industries were persuaded to convert all or part of their capacity to the production of war stores or other goods or services regarded as essential. Much was achieved, and the Department of Industries and Commerce was able to write in its 1943 report: ¹

'Shortages of raw materials and skilled labour have raised serious difficulties in the case of industries not on war work, or to a limited extent only, but the fact that many have been able to employ their surplus productive capacities on the manufacture of new lines, either wholly themselves or in cooperation with other firms, is a tribute to the resourcefulness and adaptability of New Zealand's manufacturing industries.'

Where persuasion was not sufficient, the Factory Controller had full powers to require factories to convert to war production. In cases where conversion was not possible, most non-essential industries ultimately suffered severe losses of manpower, which went to the armed services or to augment production in essential industries.

¹ Parliamentary Paper H-44, 1943, p. 2.

WAR ECONOMY

USE OF SUBSTITUTE MATERIALS

Use of Substitute Materials

As supplies became harder to get, there was a natural tendency to concentrate more on locally produced materials. The 1942 report of the **Industries and Commerce Department** says: ²

‘Where the source of raw materials used was domestic in its origin, production was substantially increased, much of the additional output being for defence purposes. This was revealed in the woollen mills, boot and shoe factories, and biscuit factories.’

Industry was also called upon to continue to produce goods where the supply of the usual materials was curtailed. Experiments were made with substitute materials, in many cases successfully. The 1944 report of the **Industries and Commerce Department** mentions the following examples: ³

- (substitution of ferrous for non-ferrous metals in the production of
a) plated spoons;
- (use of plastic materials for buttons in place of metal;
b)
- (increasing use of wood and glass for articles of domestic use;
c)
- (re-use of milk powder tins for the production of billies, tin kettles,
d) etc.
- (use of case strapping for the manufacture of bird cages, rat traps,
e) soap holders, etc.
- (use of linen flax tow to some extent as a substitute tow in fibrous
f) plaster and furniture production.

Reclaimed rubber, metals and other materials filled many gaps in the supply of raw materials, ¹ and a special wartime organisation supervised the collection and distribution of suitable waste materials. Reclaimed rubber and tyres, for example, were equivalent to nearly two

years' pre-war importing of rubber in the form of raw rubber and tyres.

² **p. 4.**

³ **Parliamentary Paper H-44, p. 2.**

¹ **See also p. 144.**

WAR ECONOMY

LABOUR SHORTAGES

Labour Shortages

In spite of the substantial increases in manufacturing employment in most war years, pressure of work was so great that some of the most acute labour shortages developed here, especially in factories where women could not substitute for men.

Chart 34 shows the composition of the manufacturing labour force over the war years.

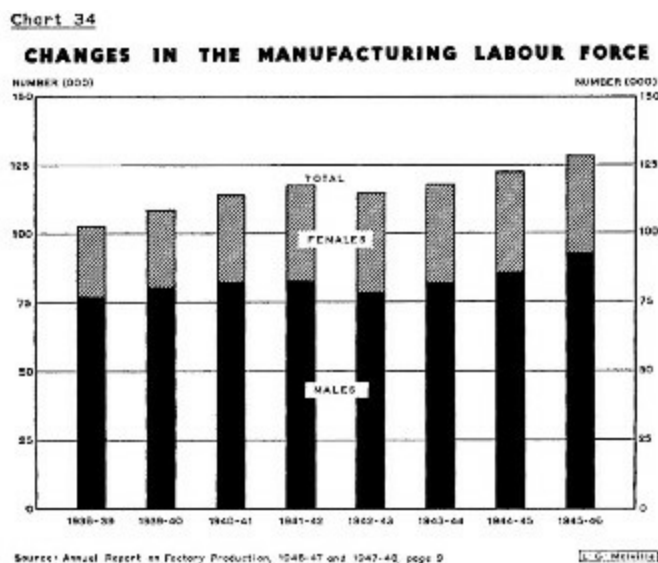


Chart 34

CHANGES IN THE MANUFACTURING LABOUR FORCE

The most difficult war year for manufacturing labour was 1942-43. This was the only year when numbers employed did not increase. Male labour was at its scarcest from February 1942 through to about January 1943, while the wartime build-up in female labour did not reach a peak until 1944-45. In mid-1939 there were some 24,000 women employed in factories. The numbers increased rapidly to reach nearly 30,000 in 1941, and then increased quite slowly to 31,000 in 1944. Up to that year the wartime increase had been 29 per cent in only five years. When men

started to return in appreciable numbers from the armed forces, many women left their jobs and, by mid-1946, the number employed had fallen back to 27,400.

Considerable overtime was worked in factories to ease the wartime employment situation. In 1938–39, overtime hours averaged 45 for all wage-earning males; on previous experience, this was a very high figure. But overtime increased progressively through the early war years to reach 199 hours in 1943–44, over four times the immediate pre-war level. A similar increase occurred in average overtime hours for women, which were 23 in 1938–39 and 90 in 1943–44. For both men and women, the longest hours worked were in 1943–44. This was about a year after armed forces strengths had started to recede from their peak,¹ but at a time when orders for munitions, military clothing and other war stores were still in excess of manufacturing capacity.

Chart 35 shows overtime worked in factories.

With direction of labour, from early in 1942, and considerable pressure on existing staff, any unauthorised absence from work came to be regarded very seriously, and the rather offensive word ‘absenteeism’ appeared frequently in the daily papers. There were special difficulties in getting staff back to work after holiday periods. The following extracts from the *Dominion* of 9 January 1943 illustrate some of the more glaring, though not necessarily typical, cases:

‘Following an analysis which is stated to have disclosed that absenteeism in *Wellington* factories this week was very serious, employers have expressed grave concern, and it is reported that representations on the subject have been made to the Government. It is stated that the nonchalant, even defiant, attitude taken up by workers who extended their holidays without the slightest regard for the war effort has shocked the principals of some manufacturing firms. They say that the problem has reached such a stage that it can no longer be regarded with any degree of equanimity, and they are insistent that the penal regulations which deal with this class of offence must be applied.

¹ Peak strength was reached in September 1942.

firms involved have been engaged wholly or partially on urgent war contracts, and the output has suffered. Women are reported to have been by far the worst and most numerous offenders, but instances are cited of male absentees, after appeals had been lodged for the retention of their services, as essential to industry.'

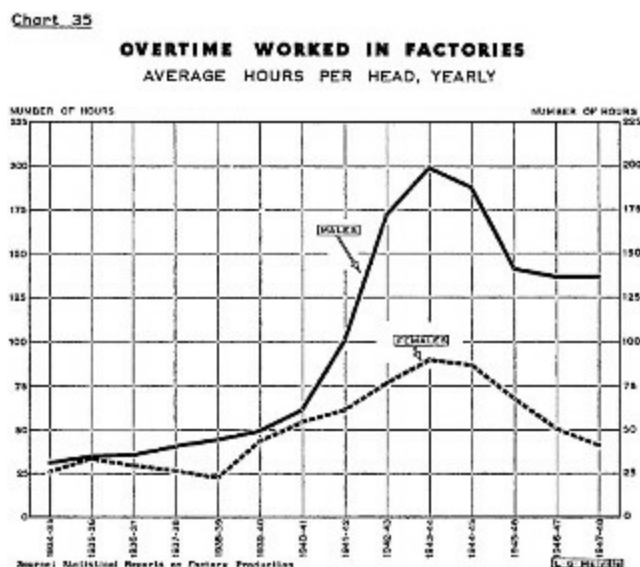


Chart 35
OVERTIME WORKED IN FACTORIES
AVERAGE HOURS PER HEAD, YEARLY

'Statistics taken out for seven **Wellington** manufacturing firms revealed that last Monday, when work was to be resumed after the New Year holidays, there were 269 absentees, or nearly 26 per cent, out of a total staffing of 696. There was the case, cited previously, in which 74 employees out of 80 were absent from work. A clothing factory was completely disorganised when only 18 out of 130 reported for work after the holidays. By Thursday the number at work had improved to a total of 26. The factory was engaged on war work, and the position with the week drawing to a close was that 80 per cent of the employees were still absent. Another firm, which escaped lightly by comparison, had 16 per

cent of its female operatives away at first, and a total of 28 absent out of a complete personnel of 200. Fifty-four employees were away out of a complement of 118 in another firm immediately after the holidays, and numbers of them had still not returned to work on Thursday. Five were men and 49 were girls. There were 160 female employees in yet another factory and 56 were absent on the first day; yesterday 15 per cent of the total were still away. Those who had returned had not been asked for an explanation, and had not offered any excuse. Of the work handled by the company, 75 per cent was military contracts. It was emphasized that with groups of employees away like that work was dislocated, as the essence of modern production methods was team work. This firm had to put up with an almost continuous rate of 7 or 8 per cent absenteeism.'

Instances of this sort must be taken along with other relevant information. ¹ Between 1941-42 and 1942-43, for example, there was a substantial increase in the volume of production per person engaged in manufacturing. The six years 1938-39 to 1944-45 saw an overall 29 per cent increase in volume of production and an 8 per cent increase in production per person. This was not an outstanding improvement by comparison with what was to be achieved postwar, but, taking into account wartime difficulties in filling supply gaps, in training substitute labour and in modernising plant, it hardly confirms the degree of labour deterioration suggested by the newspaper extracts.

By early 1943, armed forces strengths had started to diminish, and industry received some relief. However, demands for goods remained high and the shortage of manufacturing labour persisted throughout 1943-44. The Government, unable to satisfy all demands, gave what encouragement it could; for example, in October 1943, a Ministerial statement was reported:

“The process of reduction of the armed forces is not by any means finished and a steady stream of men continues to flow from the armed forces into industry,” said the Minister of Industrial Manpower, Mr McLagan, when giving figures yesterday showing the number of men who have been released from the Forces for this purpose. He said that

during the period between April 1 and September 28, 1943, the total of 12,241 were released through District Manpower Offices.

‘The Minister said that in addition there had been several hundred releases through armed forces appeal boards, and further there had been a steady inflow of manpower back to industry through rehabilitation measures. This latter flow had now reached substantial proportions due to the large number of men returning from overseas.’²

¹ See also p. 175.

² *Dominion*, 28 October 1943.

In an accompanying analysis, the Minister indicated that over three thousand of these men had gone into manufacturing. However, the pressure for manufacturing output was very high and manpower shortage continued to be a restricting influence on production. In its 1944 report, the **Industries and Commerce Department** wrote:¹

‘... the factor of paramount importance is manpower. There is a general shortage of skilled machine operatives in all classes of industry and this is especially noticeable in the clothing, footwear and engineering trades. Generally, factories are short of labour, causing the necessity for continued overtime.’

¹ Parliamentary Paper H-44, p. 2.

WAR ECONOMY

MUNITIONS MAKING

Munitions Making

On the metalworking industries fell the main brunt of the rising demand for locally produced munitions. ² General engineering factories had to increase their staffs by two-thirds in the five years 1938–39 to 1943–44. This staff increase was facilitated by the high priority for manpower purposes always given to munitions making, which was one of the first industries to be declared essential, ³ making it possible to direct labour to it.

New Zealand munitions making was predominantly small arms; for example, New Zealand industry carried out all stages of the manufacture and filling of five and a half million hand grenades and of one and a quarter million trench-mortar bombs with fuses. ⁴ Small-arms ammunition had been made before the war. Production was stepped up and the total wartime output of £303 ammunition was over 250 million rounds. This necessitated a considerable expansion of the peacetime plant. Capacity was expanded to provide for a nominal production figure of 60 million rounds a year, but in 1943, with overtime and shift-work, a peak output of 74 million rounds was achieved from this plant.

Over 9500 trench mortars, with parts for maintenance spares, were manufactured during the war, and in addition over 10,000 Sten guns, 1000 grenade mortars, 3750 rifle grenade dischargers, and 1500 automatic rifles were made.

As an example of munitions manufactured for an allied country, the production of well over a million special shell fuses was undertaken on behalf of the United Kingdom Government. Automatic machinery and other necessary equipment and materials had to be imported for the purpose.

Motor assembly plants, with drastically reduced private motor-car imports to handle, played a variety of parts in the production of munitions and war stores. Most nearly allied to their normal peacetime production was the assembly of armoured machine-gun carriers. Twelve hundred carriers were produced, complete with maintenance spares. Sub-contracts for parts were spread throughout the country.

These examples are illustrative of the variety of munitions work undertaken by New Zealand manufacturers. Other war stores, such as water valves, concrete mixers, hospital beds, stoves for heating tents, jungle knives and the like were made for the New Zealand Forces, the **United States Forces**, or to the order of the **Eastern Group Supply Council**.

The impact of munitions work on New Zealand metalworking industries forcibly brought about a rapid expansion in their capacity for precision work. To ensure that munitions components for fuses, bombs, and grenades complied with rigid specifications, it was necessary for manufacturing machine-shops to be provided with special production gauges and for inspectors to have inspection gauges. The **Dominion Physical Laboratory** of the **Department of Scientific and Industrial Research** was expanded and annexes were established in the four main centres, each of which was equipped with machinery for making and testing gauges and precision tools.

Approximately three hundred machine tools of the latest types were procured for war production purposes, and the use of these, in addition to existing equipment, on munitions and allied stores production gave an impetus in the metal industries to more efficient methods.

Pressure on most manufacturing industries continued throughout the war period and, as late as December 1944, there was a call from Great Britain for an urgent increase in production of some classes of munitions. ¹ Immediately following the defeat of **Germany** in May 1945, the munitions programme was curtailed and, in August 1945, the capitulation of **Japan** brought the production of munitions to a halt.

² The need for New Zealand made munitions is discussed on pp. 134–7.

³ In January 1942.

⁴ This and much of the following information on munitions making is derived from Parliamentary Paper H-44, Report of Department of Industries and Commerce, 1946.

¹ Parliamentary Paper H-11 A, Report of the National Service Department, 1946, p. 56.

WAR ECONOMY

MILITARY CLOTHING AND FOOTWEAR

Military Clothing and Footwear

The clothing and footwear needs for the New Zealand armed services were, for the most part, met from New Zealand production, and added considerably to the demands on the clothing, boot and shoe manufacturing and related industries. Surprisingly, this was one of the areas where the outbreak of war found New Zealand inadequately prepared. ¹ In his report for the week ending 16 September 1939, the Factory Controller wrote to the Minister of Supply: ²

‘On September 9th and 16th I visited **Trentham Military Camp to inspect the various classes of stores so as to obtain a mental picture of the Army requirements. The second visit was in connexion with the complaints received about the quality of the clothes issued to the troopsN....**

‘As reported to you, the complaints relate mainly to the issue of 1914–18 garments, due to lack of supplies of the new tunics and trousers....’

By 1940, New Zealand factories were making substantial quantities of military clothing and this deficiency was soon made good. Later in the war, Finance Minister Walter Nash was able to say: ³

‘All clothing worn by the New Zealand soldier and all the equipment he carries, except his rifle and bayonet, are made in the Dominion.’

In woollen mills, the numbers employed increased from 2400 in 1938–39 to over 4000 in 1942–43 and 1943–44, declining to 3800 in 1944–45. In the latter year, employment was still 50 per cent higher than before the war.

Peak production in woollen mills was reached in 1942–43, when

military demands were at their height. Output of yarn was highest in 1941–42, being then over twice the pre-war figure. Hosiery production reached to 75 per cent above the pre-war amount in the same year. The following year, well over a quarter of a million pairs of blankets were made, bringing output to over 70 per cent above the pre-war figure, and the output of flannel reached twice its pre-war total. In 1943–44 production of tweed and cloth reached its peak, being then well over double its pre-war figure. To assist in achieving these high outputs, a good deal of new machinery was installed.

Because of the extensive military contracts undertaken by woollen mills and the dependence of the clothing industry on their output, the mills were, throughout the war, regarded as of high priority for the allocation of labour. However, the **National Service Department** was disappointed in the co-operation it received. It wrote: ⁴

‘Unfortunately, mill managements were not prepared to cooperate with the Department to the extent of appointing representatives to a national Man-power Utilization Council for the

¹ Output of woollen mills and clothing factories had declined in 1938–39, as had the numbers employed.

² Copy on Industries and Commerce file 54/3.

³ Quoted by Soljak in *New Zealand, Pacific Pioneer*, p. 144.

⁴ Parliamentary Paper H-11 A, Report of the **National Service Department**, 1946, p. 47.

industry, or to local Man-power Utilization Committees. The absence of this co-operation made the realignment of labour rather more difficult than in the clothing industry, where the assistance of employers on the Committees contributed very materially towards the remarkable build-up

in staff that was achieved in that industry. Nor did the woollen-mills make an effort comparable with that of clothing-factories to secure staff independently of the Department's efforts. During 1943, 1944 and first quarter of 1945 the industry was assisted by the issue of over 1,000 effective directions, the bulk of which were issued to female workers.'

In the later years of the war, military needs were less, and it was possible to switch back to civilian production. By 1947-48 employment in woollen mills fell back to lower than in 1937-38, a decline which was unusual for a New Zealand manufacturing industry, and in marked contrast to what happened in clothing factories, where employment increased by well over a quarter in this decade.

Chart 36 shows fluctuations in numbers engaged in woollen mills.

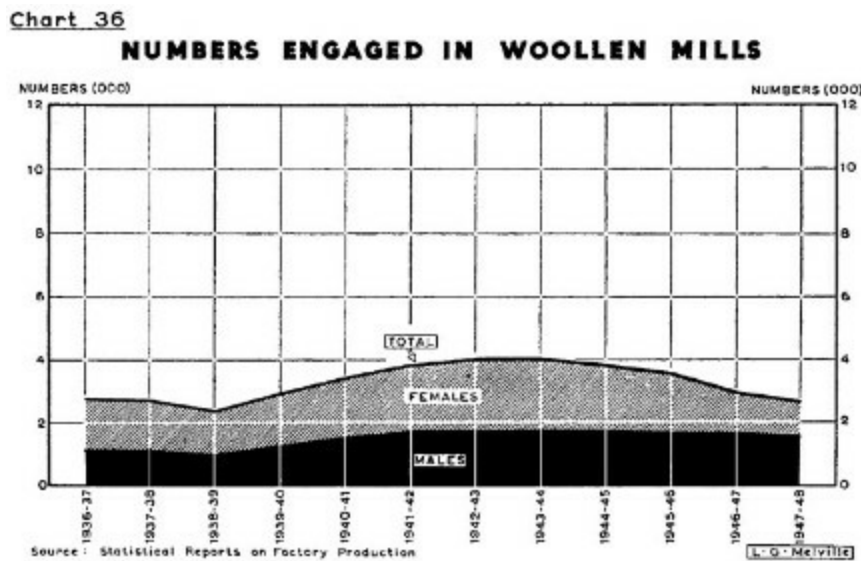


Chart 36
NUMBERS ENGAGED IN WOOLLEN MILLS

Wartime staff increases in the clothing industry were relatively much more moderate than in woollen mills, though, in numbers, the influx was greater. With a staff approaching 12,300 in 1938-39, the industry had a 19 per cent increase by 1941-42, to reach nearly 14,600. There was a temporary decline in the next two years, but, in 1945-46, numbers employed were still 21 per cent higher than before the war.

The clothing industry was well established before the war and was

called upon, during the war years, to manufacture battledress, greatcoats, and other garments of all descriptions in large quantities, not only to equip the New Zealand Forces, but also for allied forces overseas. Those clothing factories which were engaged substantially on military contracts were included in the first list of declarations of essentiality, issued in January 1942. Later in that year, a National Manpower Utilisation Council and local Utilisation Committees were set up in the industry to assist primarily in coping with the very heavy demands upon it for military orders and the effects of this upon essential civilian production.

By August 1942, the labour position had become so difficult that declarations of essentiality were extended to cover the greater part of the industry. Within the field covered by declarations, however, the **National Service Department** continued to distinguish three groups—factories engaged preponderantly on military contracts, which held a first priority; factories engaged preponderantly on utility civilian garments in critically short supply, which held a second priority, and other factories which held no priority and were rather in the category of a reserve of labour. ¹

Clothing factories employed predominantly female labour. Large numbers of extra women entered civilian employment in the early years of war, but not always in the traditional women's occupations. They were increasingly required to replace men who had been mobilised. Industries which customarily used female labour had their share of staffing problems. By the end of 1943, the acute shortage of labour throughout all industries, together with the mounting arrears of essential civilian production which had been displaced by urgent military orders, had brought the clothing industry to a critical position. In November 1943 a **National Garment Control Council** and **District Garment Control Committees** were set up to keep a close watch on production and to set production targets for critical lines. With targets established, it became possible for District Manpower Officers, assisted by Utilisation Committees, to take much more drastic steps to transfer

labour into factories which were prepared to concentrate on these critical lines. In 1945 some 4000 women were working under manpower direction in the clothing factories. At this point nearly 15,000 people were employed in the industry.

The war period saw the start of a tendency for clothing factories to decentralise in order to seek out reserve pools of female labour in secondary population centres, a tendency which was to become much more marked when the labour shortage continued into the post-war period.

¹ Parliamentary Paper H-11 A, Report of **National Service Department**, 1946, p. 46.

In 1944-45, value of output in clothing factories was well over double its pre-war amount. In contrast to what happened in woollen mills, the expansion in output and employment was to continue strongly into the post-war years after the flush of defence ordering had passed.

Chart 37 shows changes in employment in clothing factories.

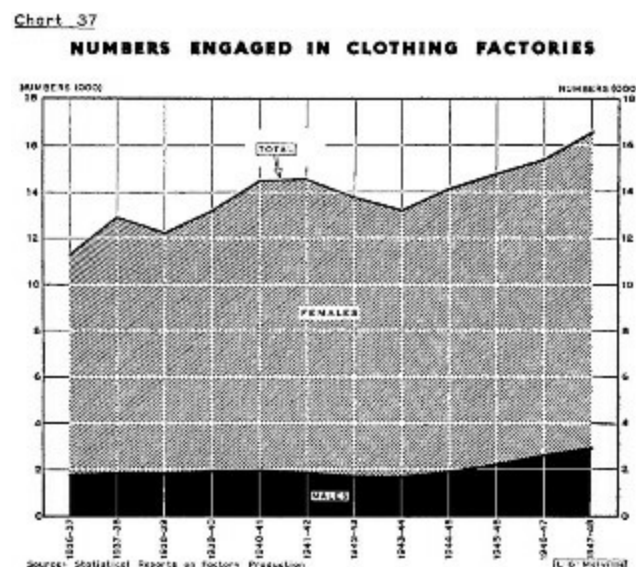


Chart 37

NUMBERS ENGAGED IN CLOTHING FACTORIES

Requirements for military footwear resulted in considerable extra

pressure on the boot- and shoe-making industry, which was already being rapidly expanded to meet the dwindling flow of imported footwear. With a staff of under 3100 at the outbreak of war, it had taken on 1500 more people by 1941-42 and was to employ over 4500 for the rest of the war. Even with this staff, pressure for military footwear was so intense that there were shortages from time to time in some types and sizes of civilian wear. Production for military purposes was at a peak in 1942 but remained high until the end of the war. During the war years, military orders took about one-fifth of all the output of boot and shoe factories. When war finished, the industry had over 50 per cent more labour than at the outbreak.

The extra demand for leather for footwear led to an exceptional increase in work for the tanning industry, which doubled its staff between 1938-39 and 1943-44, and maintained the increase for the rest of the war. Considerable extensions to plant had to be made to provide extra productive capacity.

Chart 38 shows changes in employment in boot and shoe factories.

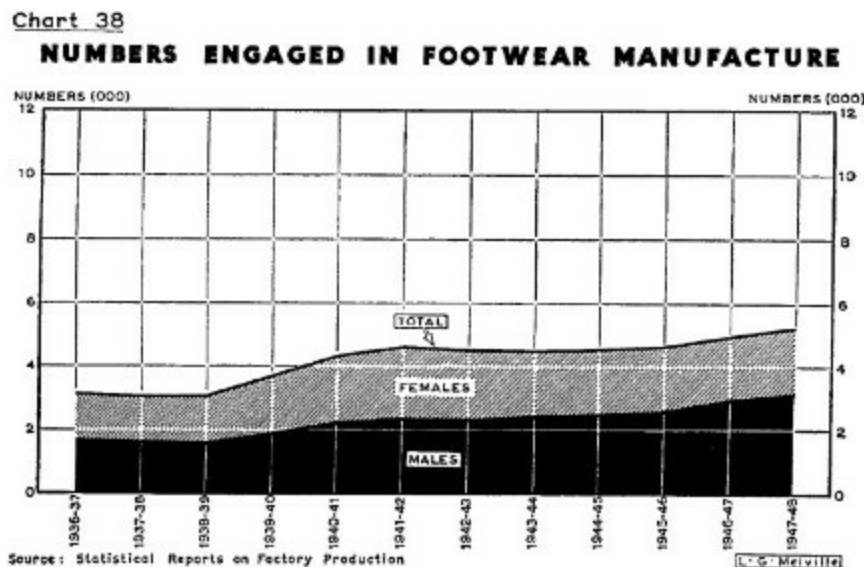


Chart 38
NUMBERS ENGAGED IN FOOTWEAR MANUFACTURE

Over a million battledress suits were made during the war in New Zealand factories, together with over half a million greatcoats, four and

a quarter million pairs of socks, and corresponding quantities of other military clothing. Seven hundred thousand pairs of blankets were also made to military orders. Clothing factories and boot and shoe factories received an impetus from this wartime ordering, which was to continue into the post-war years and enable them to produce many civilian lines which had previously been imported.

Chart 39 shows changes in output of some selected items.

Of particular interest is the marked wartime reduction in output of shirts and trousers for civilian use. Shirts and trousers for service use were included in military orders, which were at a high level from 1940–41 to 1942–43.

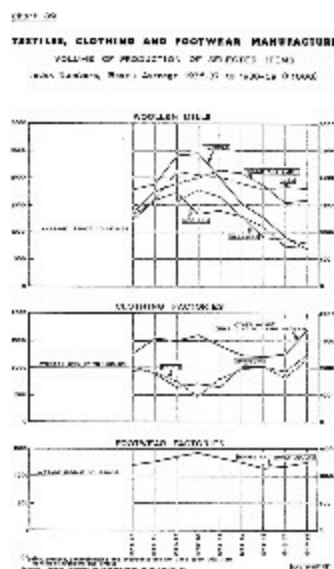


Chart 39

TEXTILES, CLOTHING AND FOOTWEAR MANUFACTURE
VOLUME OF PRODUCTION OF SELECTED ITEMS
Index Numbers, Base: Average 1936–37 to 1938–39 (= 1000)

WAR ECONOMY

THE RADIO INDUSTRY FULLY ENGAGED ON WAR WORK

The Radio Industry fully Engaged on War Work

A useful contribution to the allied war effort was made by the radio industry in New Zealand. This industry, at the outbreak of war, was not yet able to meet all New Zealand civilian demands, but there was already a move to increase its output and to lessen its dependence on imported components.

Output continued to expand in the early months of the war, and, by the middle of 1940, the production of domestic receivers was sufficient for the country's requirements. From that time on, the industry began to feel the effects of decreasing supplies of components and raw materials, particularly from the **United Kingdom and the **United States of America**. A special committee was set up ¹ to survey the supply position and to allocate contracts for equipment.**

Only small quantities of specialised military equipment were made in the first three years of war, but in 1942 a more urgent need arose for a general purpose receiver and transmitter. ² A suitable type of equipment had already been developed in New Zealand. The demand promised to be sufficient to require most of the capacity of the industry. As a direct outcome of demands by the **Eastern Group Supply Council for large-scale production of this general purpose transceiver ³ for military use in **India** and in other theatres of war, the industry was brought under tighter control by the appointment of a Controller of Radio Production in July 1942.**

Because of difficulties in importing components, this New Zealand transceiver was based as far as possible on locally made components. The sets were required for use in tanks, armoured scout cars, reconnaissance cars and other military vehicles, as well as for general front-line field communications purposes.

The industry's ability to meet the orders depended on the availability of components and raw materials. To conserve existing supplies, the Controller restricted the manufacture of radio equipment to defence contracts. Stocks of components and materials held by manufacturers and retailers were 'frozen' and items in critical supply bought up by the Ministry of Supply. However, as it was likely to be some time before production of the transceiver could begin, sufficient domestic manufacture was allowed to keep the factories intact, and to allow the industry to preserve its skilled manpower.

¹ The Radio Equipment Supply Committee.

² Known as a 'transceiver'.

³ The ZC 1.

Full production of the transceiver began in April 1943. Modifications in design were made from time to time after experience with it, but it continued to be a reliable set especially suitable for tropical conditions. Sets and spares sufficient for 15,000 complete stations were supplied by the New Zealand industry. The total value of the transceivers was just over £3 million, involving fifty-six factories. ¹

From mid-1943, the industry was engaged full-time on this and other government orders. Already expanding pre-war, the radio industry forged ahead under pressure of these wartime government orders, its expansion being specially rapid once manufacture of the transceivers was under way in 1943. By 1943-44 there were over nine hundred persons engaged, nearly twice as many as in 1938-39. The following year over 1300 were in the industry compared with 475 in 1938-39.

Pressure of war work remained heavy. Not until August 1945 could controls be removed to enable the industry to return to normal operations. On 7 August 1945 the Radio Controller reported to the

Minister:

‘As there appears to be no possibility of the industry obtaining further war contracts, a relaxation of the control notice will be necessary not later than the end of this month, to enable units to maintain continuity of work in various departments.’

Eight days later [Japan](#) had surrendered. The removal of the controls became effective from 1 September. There was a slight fall in numbers engaged when war contracts ceased, but by this time, the radio industry had more than sufficient capacity to supply all normal New Zealand requirements.

¹ See also [p. 137](#). A [United Kingdom](#) war history suggests a much smaller output, and that this was too late to be used. The New Zealand War History narrative on ‘The Radio Industry’ was ‘corrected and supplemented by R. Slade formerly Controller of Radio Production’. It reads, at p. 38: ‘Of the total order for 15,000 completed sets, over 14,500 were delivered. The EGSC was enthusiastic about the set, particularly the Mark II, and found that it compared very favourably with overseas produced equipment and was specially reliable for tropical operations’. An Indian war history lists major items of stores ordered on Eastern Group countries, and includes, under New Zealand, ‘Wireless sets: 14,605.’—Sinha and Khera, *Indian War Economy (Supply, Industry and Finance)*, p. 426.

WAR ECONOMY

SHIPBUILDING AND REPAIR

Shipbuilding and Repair

Soon after the outbreak of war it became apparent that, although the Royal New Zealand Navy had taken over most of the small coastwise cargo vessels suitable for conversion into minesweepers, there would still be insufficient minesweeping craft to adequately protect New Zealand coastal sea lanes and harbour approaches under war emergencies. Other allied countries, with similar and even more pressing needs of their own, could not be expected to fill the gap. New Zealand had to try her hand at building minesweeping ships and their machinery.

Shipbuilding was not a new industry in New Zealand. Prior to the war a steady flow of small ships had been built, and the knowledge so gained laid the foundation for the war programme. From the beginning of European settlement in the early nineteenth century, small wooden ships had been built in localities where kauri and other suitable timbers were available. Later some had been built entirely of steel, examples being the s.s. *Earnslaw*, a passenger ship for Lake Wakatipu, of 330 tons, built at Dunedin, and the tug *Dunedin*, 345 tons, constructed at **Port Chalmers**. The 205-ton motor ship *Hokitika*, well-known on the coast, was also built at Dunedin.

To meet the wartime emergency, it was thought that vessels of the minesweeper-trawler class could be constructed of composite design, that is, steel frames with wooden planking. However, a bottleneck occurred. Engines, although they were eventually built in New Zealand, could not be constructed quickly. The impasse was resolved when five old condemned vessels, lying in the 'Rotten Row' of the **Auckland** harbour, were inspected and it was found that their engines still had about a five-year life in them, the estimated duration of the war. Composite hulls could be built and the minesweepers powered with the engines from the condemned steamers.

Early in 1941, plans of the *Castle* type all-steel trawlers had been received from the Admiralty and construction of composite ships based on the *Castle* design started. In at least one case the boilers from the old ships had to be placed back to front, and the general arrangement of the composite vessels, having regard to the difficulties of installing old engines in new hulls, was a feat of engineering. Eventually four minesweepers were successfully constructed and launched. They were in service with the Navy for over five years.

In 1940, while these composite vessels were in course of construction, an urgent appeal was received for the construction of all-steel vessels, nine for the New Zealand Navy and five for the Admiralty—the latter order was eventually cancelled. Sufficient steel for hulls and propelling engines was made available by [Australia](#), and boilers were ordered from England. The [Railways Department](#) co-operated with private firms in building the engines.

The programme for the construction of steel minesweepers was hardly under way before the Admiralty requested the construction of twelve 'Fairmile' patrol vessels for anti-submarine warfare. Arrangements were made, in July 1942, for the work to be done by a combination of the smaller wooden shipbuilding firms in [Auckland](#) and the twelve were completed by September 1943.¹ All the components necessary for the assembly were imported from the Fairmile

¹ Parliamentary Paper H-15, Report of [Marine Department](#), 1946, p. 4.

Company, England, excepting keels, sterns and other foundation members and the whole of the deck planking, which were made of kauri and other suitable New Zealand timbers.

In addition, the Public Works Department arranged for the construction of twenty-seven small vessels, to act as refuelling barges,

crash launches, flarepath dinghies and the like, for air bases in New Zealand and in the nearby **Pacific Islands**.

Towards the end of 1942, the **United States** authorities inquired whether New Zealand could construct small craft for them for use in the **Pacific** areas. At that stage, with yards already hard pressed by a full programme of construction for the New Zealand Navy and to meet Admiralty requirements, it seemed, at first, that nothing could be done. However, the **New Zealand Government** was anxious to assist the **United States** as much as possible and a conference was called to see whether special arrangements could be made. The Americans were told that New Zealand could help. Mr James Fletcher ¹ was appointed Controller of Shipbuilding in November 1942, and set out to make this extra task possible. Two Government shipyards were constructed in **Auckland**, one for steel tugs and the other for wooden tugs and powered lighters. Prefabricated parts were made by over two hundred smaller firms and delivered at the shipyards for final assembly.

The ship and boat building industry employed seven hundred men in 1939, but by 1944 was employing over seventeen hundred. This, however, takes no account of those in general engineering and other establishments which played a role in repair work or in prefabricating parts of ships. For most of the war, there were very considerable difficulties in finding sufficient skilled labour, and these difficulties were accentuated when the **United States** orders were accepted.

For the construction of steel minesweepers, the difficulty in securing skilled labour was even more acute than it was for the wooden ships. This was one of the reasons for changing from steel to composite minesweepers at **Auckland**. With steel-workers, there was no reserve of labour whatever, and, to obtain skilled labour at short notice, workers had to be transferred from some other branch of the engineering trade. At Port Chalmers the work was done by transferring men on loan from the Railway Workshops, while at **Auckland** a few were obtained from the Railway Workshops at Otahuhu. This was, at best, a temporary measure. Before long the heavier demands on rail transport were reflected in an

increase in maintenance work, and the **Railways Department** not only required the loaned men back, but was forced to reduce the contribution its own workshops could make to the shipbuilding programme. ²

¹ Later Sir James Fletcher – then Commissioner of Defence Construction.

² The **Railways Department** is the largest single employer of engineering tradesmen.

Wartime ship-construction work is summed up in the following table:

1

WARTIME SHIP CONSTRUCTION

<i>For the New Zealand Navy</i>		£
Composite Minesweepers	4 at £60,000	240,000
Steel Minesweepers	9 at £60,000	540,000
Fairmile Anti-Submarine Vessels	12 at £35,000	420,000
Steel Oil Barge	1 at £50,000	50,000
<i>Small Vessels for RNZAF, etc.</i>		
Refuelling barges, crash launches, flarepath dinghies, etc.	27	20,000
<i>For the Administration, Western Pacific</i>		
Wooden Vessels, 60 ft	5 at £11,000	55,000
<i>For U.S.A.</i>		
Steel Tug Boats, 75 ft	22 at £26,700	587,400
Wood Tow Boats, 45 ft	50 at £7,250	362,500
Powered Lighters, 114 ft	15 at £71,400	1,071,000
Wooden Barges, prefabricated, 50 ft	40 at £1,000	40,000

Wooden Barges, completed, 50 ft	100 at £1,200	120,000
Amphibian Trailers, steel	100 at £270	27,000
Wherries, wood, 12 ft and 14 ft	60 at £85	5,100
<i>For Eastern Group Supply Council</i>		
Tow Boats	24 at £5,500	132,000
		£3,670,000
		²

Acceptance of the **United States** programme made it necessary to bring in carpenters and joiners with no previous shipbuilding experience and to put them to work alongside experienced hands. Under this expedient, referred to as ‘dilution of labour’, the new men mastered the trade in a surprisingly short time. Hundreds of housebuilding carpenters were transferred to shipbuilding, a seemingly entirely different trade, and within a few months they had become proficient in their new industry.

When an order for wooden barges was received from the Americans, there was no spare capacity in the industry and again it was necessary to call on firms outside the usual run of boatbuilding. These barges were made by a syndicate of coachbuilding firms in **Christchurch** and **Dunedin**.

¹ Based on Parliamentary Paper H-15, Annual Report of the **Marine Department**, 1946, pp. 4 and 5.

² The basis for payments to shipbuilders is discussed in

Labour problems arose also in the construction of seagoing tugs to an all-welded design. There were not enough welders. A training school was set up and, after three or four weeks' tuition, trainees were passed out for welding on the tugs, their work being supervised by a more experienced welder. The hull of each of these vessels was constructed in three separate parts, the bow portion, the middle body and the stern. During this period early-rising motorists might have been startled to come upon the bow portion on the way by road from the Railway Workshops at Otahuhu, round about daybreak when interference with traffic would be at a minimum.

Normal repairs to the New Zealand coastal fleet had to be maintained while this shipbuilding programme was going on. In addition, because of ship and machinery repair congestion in other countries, there was extra repair work to be done on overseas vessels in New Zealand ports. For example, New Zealand engineering establishments played a part in effecting repairs to over a thousand **United States** ships.

New Zealand's only floating dock, at **Wellington**, played an important part in ship repair work. Taylor writes: ¹ 'The only one of its type in New Zealand, and one of the largest anywhere nearer than **Capetown**, the Wellington Harbour Board's Floating Dock gave efficient and most valuable service in the maintenance and repair of British and Allied vessels during the war. In a special measure it helped to relieve the considerable war pressure on British docks, and in its maintenance and repair of **United States** vessels it played no small part in relieving the shipping problems of the **Pacific** campaigns.'

The speed and quality of New Zealand shipbuilding and repair work made a considerable impression on **United States** naval authorities. The following comments are extracted from a United States Navy war history narrative: ²

'... there was a quality of self-sufficiency about the little shops and a

pride of workmanship that was most impressive.'

'The skill of the average New Zealand mechanic should be noted, as it is of the very highest order.'

'Phenomenal records were put up in building these ships. The rate of building compared favourably with similar construction in the States, only more were built in the States, but the rate was not exceeded.'

'Considering the pre-war demand for ship repair facilities in

¹ **T. D. Taylor, *New Zealand's Naval Story*, p. 145.**

² **'New Zealand Sea Frontier Organisation', unpublished manuscript, copy on Department of Statistics file 100/20/43.**

New Zealand, an incredibly large tonnage of American vessels received urgent attention in Dominion ports in the last three years.'

Many of the ships built under special difficulties as part of the wartime shipbuilding programme would still be found usefully serving peacetime pursuits around New Zealand, **Australia and the **Pacific Islands** twenty years later.**

WAR ECONOMY

TOBACCO AND CIGARETTE MAKING

Tobacco and Cigarette Making

During the war, the tobacco and cigarette making industry in New Zealand took over most of the local market from the pre-war overseas suppliers of manufactured tobacco and cigarettes. The number of cigarettes made in New Zealand more than doubled between 1938–39 and 1941–42. The industry was to continue to strengthen its position for the remaining war years and to hold the bulk of the market after the war.

This expansion was not entirely an effect of war. In its 1939 report,¹ issued before the outbreak of war, the Department of Industries and Commerce had said: ‘It is the policy of the Government to develop both the growing and manufacture of tobacco in New Zealand, and further steps have been taken by the Government to this end during the past year. Chief of these perhaps is the Government's policy of import control and selection. By a progressive curtailment of imports of manufactured tobacco and cigarettes, and by the utilization of a progressively larger quantity of New Zealand leaf, it is hoped that the industry will continue to grow in influence and importance year by year.’

Progressively this policy was intensified. The original reasons for it were soon supported by new justifications arising out of the war. In its 1941 report² the Department of Industries and Commerce wrote:

‘Efforts have been made to bring about a substantial expansion in production during the 1940–41 and future seasons, this being both desirable and necessary, having regard to war conditions, to the possibility of interruption of supplies of leaf from [America](#), and to the necessity for conserving sterling funds. Certain recommendations were recently made by the Board to the Government in connection with the possibility of expanding the production of leaf. The Board made a

recommendation that, with a view to

¹ Parliamentary Paper H-44, p. 29.

² Parliamentary Paper H-44, p. 18. The Board mentioned was the Tobacco Board.

ensuring that at least 20 per cent of the total leaf used by each manufacturer will consist of New-Zealand-grown leaf, the Government introduce regulations to provide that as from a fixed date, say 1st January 1941, individual manufacturers may not clear from bond for entry into manufacture imported leaf exceeding four times the quantity of New-Zealand-grown leaf used in manufacture by them during a period of six months following that date. The Government has since given effect to a recommendation by the Board that the minimum percentage of twenty be raised to 22½ per cent during the period of six months commencing 1st July 1941. The Government expects manufacturers to use New Zealand leaf to a maximum and not necessarily to restrict themselves to the minimum of 22½ per cent which has been decided upon.'

This policy was effective in increasing the New Zealand-grown content of local manufacture. In the three years 1938-39 to 1940-41, 30 per cent of tobacco used was grown in New Zealand; in the next three years the proportion was 35 per cent and, in the three years 1944-45 to 1946-47, 40 per cent. Government policy was to be even more effective in increasing the amount of local processing of cigarettes and tobacco smoked in New Zealand. Local production of cigarettes averaged 600 million a year in the three years 1938-39 to 1940-41, being then over twice that of the preceding three years. From 1941-42 to 1943-44 it averaged over 1000 million, and from 1944-45 to 1946-47 nearly 1200 million.

Expansion of production was aided by the decision of the Minister of Industrial Manpower, in August 1942, ¹ to declare the industry essential.

Numbers employed increased by 40 per cent in the first three years of war, but declined a little in the later war years. Just over 1000 persons were employed in 1943–44, more than three-quarters being women.

Throughout the war, the supply of labour to tobacco factories was one of the more difficult problems confronting the **National Service Department**. The position, in the **Wellington** area, particularly, became acute in 1943, with the pool of available female labour almost exhausted. Women had to be directed to tobacco factories from other areas, and there was soon a very vocal opposition from a section of the public to the direction of girls to what it considered a luxury trade. Equally vocal, however, were larger sections of the public which found that shortages of female labour for tobacco factories threatened their supplies of cigarettes and tobacco. Consequently, the tobacco industry and the supply of labour to it attracted a disproportionate share of publicity.

¹ Declaration No. 110 in *New Zealand Gazette* of 6 August, amended in *Gazette* of 4 February 1943.

In the circumstances, it is interesting to record that direction of labour for tobacco and cigarette manufacture was, in large measure, successful. An employer wrote: ¹

‘Directed girls gave excellent service and, almost without exception, worked as well as voluntary labour. They performed semi-skilled work and quickly became proficient. Most of the girls stayed with us when the manpower controls were withdrawn, although some of them have since left us, in most cases because of marriage. In the ordinary course absenteeism was, if anything, lower with directed girls residing at the hostels as compared with local girls. After public holidays the rate was higher with directed girls, due no doubt to their inability to travel to their homes and return within prescribed limits. It must be remembered that most of these girls were directed to us from all parts of the **North Island**. With few exceptions directed girls worked willingly and

cheerfully and appeared to accept philosophically their direction into industry during the wartime emergency.'

¹ W. D. and H. O. Wills. The firm, in 1963, still had two women on its staff who were directed there during the war.

WAR ECONOMY

NEW INDUSTRIES

New Industries

Many new manufacturing industries sprang up during the war years. Some of these owed their existence to war conditions, but many were a result of the quantitative controls of imports which had been introduced before the war started. The 1940 annual report of the Department of Industries and Commerce gives the following list of new industries commenced during the year 1939–40: ²

‘Some idea of the progress that has been made by local manufacturers to supply the market for goods previously imported can be gained from the following list of products, the manufacture of which has commenced during the past year: Parchment lamp shades, rubberware for milking machines, fruit cases, ³ soft goods, tennis shoes, rustproofing, trout fishing flies, iodized table salt, fibrous plaster, tartan novelties, biscuits, bricks and tiles, sewing mops, hosiery, corsets, boxes, springs, inks, handbags, terrazo, nails and staples, paint, paper cartons, rubber solution, zinc oxide, cosmetics, concentrated foods, jellies, toys, bolts and nuts, cornflour, liver salts, pharmaceutical preparations, electrical appliances, batteries, malted milk, lacquers, soap, litharge, mattresses, cottonwool, carpets, carbon-dioxide gas, flock, plastics, buttons, buckles, cigarette papers, tobacco and cigarettes, ⁴ steel wool and potmits,

² Parliamentary Paper H–44, p. 15.

³ *Sic.* Perhaps a new factory, but the industry was not new.

⁴ *Sic.* Not new. This industry had been producing over £1 million of output for some years. It is probable that this is a list of new factories rather than new industries.

varnishes and waxes, washing machines, sporting goods, dentifrice, raincoats, electroplated ware, concrete goods, cordials, caravans, block board, veneer panels and mouldings, soldering fluid, valve grinding paste, plastic wood, gasket cement, spoons, forks and butter knives, hat-blocks, gluten, dextrine, glucose and handkerchiefs.'

The obvious tendency towards diversification in New Zealand manufacturing revealed by this list was not an unmixed blessing. Before import controls were imposed, in 1938, New Zealand industries were, in general, operating on too small a scale, and this further tendency towards diversification hindered any move to increase the scale of manufacturing industries. However, diversification increased the range of techniques and skills available to meet war needs.

Some of the effects of war are revealed in the 1943 report, ¹ which said:

'The following important additions to our manufacturing industries were made during the year: dehydration of food, linseed oil, fishmeal, fish liver oil, rubber reclamation, macaroni, plastic substitutes for tin, enamel mugs and plates, gasmasks, turret lathes, batteries for hearing aids, power presses.'

An interesting commentary on the fish-liver oil industry is given in the 1944–45 annual report of the [Marine Department](#): ²

'Among other developments in the utilization of fishery products, hitherto wasted, that have been more or less forced upon us by conditions arising out of the war, the fish liver oil industry is one of the most important and probably has the best chance of continuing to be a good thing in both its commercial and social aspects after the return of normal economic conditions. During the year 1944 a total weight of 544,300 lbs of fish livers was processed at the two established factories for which not less than £24,000 had been paid to fishermen and from which not less than 20,000 gallons of oil were produced. Exports of fish

liver oils totalled 19,251 gallons. In the same period 15,340 gallons of cod liver oil and 417 gallons of halibut liver oil were imported. This apparent anomaly perhaps requires explanation. The great cod fisheries of the **North Atlantic are the sources of the cod liver oil of commerce which has been used for a great many years in medicine, more especially for the treatment of rickets and respiratory disease. Only in recent years has science provided an explanation of the factors that are responsible for the therapeutic virtues of cod liver oil....**

¹ Parliamentary Paper H-44, Report of the **Industries and Commerce Department, p. 3.**

² Parliamentary Paper H-15, p. 17.

‘Some of our relatively abundant New Zealand fish provide oils that are richer in vitamins. For example, ling has sixteen times as much A and five times as much D; groper (hapuku) has fifty times the potency in A and twenty-two times in D; kingfish two hundred times as much A and probably about a hundred times as much D. Ling liver oil, like that of the true cod, is relatively easy of extraction, which is not the case with that of groper and kingfish. Livers from various species of shark yield copious amounts of oils that are particularly rich in vitamin A—in some cases up to over one hundred times as much as in cod liver oil—but poor in vitamin D.

‘A large proportion of the oil produced in New Zealand is obtained from vitamin A rich shark livers. Nutritional authorities consider that our ordinary New Zealand diet is deficient in vitamin D, more especially for juvenile and maternity requirements, but there is, or there need be, no deficiency of vitamin A. Shark liver and other oils very rich in vitamin A are thus available for export. And this last statement can be strengthened by adding that practically all the rest of the world is undersupplied, while to the populations of those countries which are the concern of UNRRA, their restoration to anything like normal health is

absolutely dependent on their receiving, among the “protective” food factors, increased amounts of this vitamin.’

Some of the new industries established during the war disappeared when the special war needs passed, but most remained in existence and grew in stature. The tendency for the range and depth of New Zealand manufacturing to increase was to continue apace after the war. ¹

¹ It is quite impossible, in this chapter, to deal in detail with all the industrial changes in the war years. Those mentioned here must be regarded as examples only. Many are referred to in other chapters; for example, the processing of a new local crop, linen flax, is dealt with in the farming chapter, the need for extra steel rolling capacity in the supply chapter, and so on. For those who are interested in a particular industry, the alphabetical index may help, but to give even a brief account of every manufacturing industry would need several volumes this size.

WAR ECONOMY

PRODUCTION ACHIEVEMENTS

Production Achievements

In the seven years from 1938–39 to 1945–46 the volume of manufacturing production increased 31 per cent, equivalent to a growth rate of nearly 4 per cent a year. Though production volume increased each year, the period includes two spells of comparatively slow growth. In 1940–41, with supply problems becoming more difficult, the increase dropped to 2 per cent. The rate then stepped up, but later, when munitions work declined, there was a second deceleration. Victory in **Europe, in May 1945, curtailed orders for munitions and other war stores. With victory over **Japan**, in August, they fell right away. The switch back to civilian work involved some delays and readjustments. Production increased only 2 per cent in 1945–46.**

These wartime increases occurred in a manufacturing sector which was well protected by quantitative import restrictions, but was hampered by wartime supply and labour difficulties and, in some cases, by shortages of power. There is no need to go fully into these difficulties here: supply problems are discussed in

Chapter 6, labour shortages in

18, and power restrictions and coal shortages in

Chapter 16. Sufficient now to recall that stocks of manufacturers' materials tended to be inadequate from the outbreak of war,¹ but for many commodities improved from 1943; that labour shortage became acute in 1941² and remained difficult for the rest of the war; that power supplies for new factories were threatening to become restrictive after 1943³ and were putting a brake on some new developments early in 1945.

The wartime growth in volume of manufacturing production of 4 per cent a year on average was roughly in line with the long-term trend. The years 1933–34 to 1937–38 had seen a faster rate of growth, but this was in large measure a post-depression recovery.

In 1938–39, with difficult overseas trading conditions having some effect, the increase had been only 3 per cent. But wartime demands gave a new boost, which was initiated with a production increase of 10 per cent in the first year.

Chart 40 shows changes in volume of manufacturing production.

Considering the quite rapid increase in labour available to manufacturing industries, the rate of increase in production is not very fast. It should, however, be remembered that much of the new labour came into the industry under manpower direction. Often training or retraining was necessary before the extra workers could be used efficiently.

Uncertainties in supply affected equipment as well as materials. Many of New Zealand's suppliers of productive equipment found their efforts diverted to war production for their own governments and could not meet New Zealand orders. However, it is interesting to note that motive power available to manufacturing industries in New Zealand increased from 848,000 horsepower in 1938–39 to 1,167,000 horsepower in 1945–46, an increase of 37 per cent. There

¹ See also p. 116.

² See also p. 96.

³ See also p. 433.

was no lack of available motive power, although shortages of coal and electricity did prove restrictive for some industries on occasions.

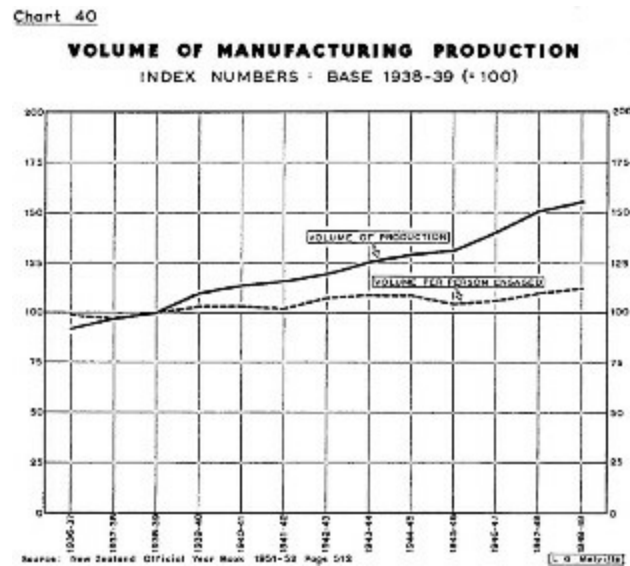


Chart 40

VOLUME OF MANUFACTURING PRODUCTION
INDEX NUMBERS: BASE 1938-39 (= 100)

The prevailing weakness of New Zealand manufacturing, its tendency to small-scale operation in a multiplicity of types of establishment, remained throughout the war period and no doubt contributed to the slow rate of improvement in output per labour unit. The average size of establishment was 17 persons in 1938-39 and 18 in 1945-46.

The setback to increases in productivity, that is, in production per unit of labour, ¹ shown on Chart 40, in 1940-41 and 1941-42 was probably associated with the growing supply difficulties in those years. The second setback, in 1945-46, was affected by the falling away of war production. In each case substantial retraining of staff was also occurring, first of new staff to replace armed forces recruitments and

second of service personnel returning to industry.

¹ Strictly, productivity is a measure of changes in output from industry per unit of labour and other resources used, but useful information is obtained by comparing output to labour only.

The growth in output per labour unit averaged 1½ per cent a year during the build-up from 1938–39 to peak munitions production in 1943–44. It averaged less than 1 per cent a year for the whole of the war period. Post-war production and productivity changes were to make these growth rates look slow, but they were quite reasonable, considering the difficulties under which they were achieved.

WAR ECONOMY

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Achievements

WAR ECONOMY

NEW ZEALAND AS A FOOD PRODUCER

New Zealand as a Food Producer

NEW ZEALAND'S most vital economic contribution to the allied war effort was the produce of her farms. For a time, when British food supplies were at their lowest ebb, extra food production became more urgent than the strengthening of New Zealand's fighting forces.

Before the war, a sixth of the **United Kingdom's** meat imports, a quarter of her butter imports and well over half of her cheese imports came from New Zealand. These proportions were to be increased considerably in time of war.

The long-term trend was for the volume of New Zealand's farm production to increase by about 2 1/4 per cent a year. However, production as well as price was subject to unexpected variations. There had been two very good farming seasons in 1936–37 and 1937–38, but, in the immediate pre-war year, 1938–39, the volume of farm production fell back to the level of three years before. The main decline was in the production of butter, which more than offset the effects of a very good season for wool. As a result, export volumes were comparatively low. This, combined with a tendency for export prices to fall, added up to a poor season for export earnings in 1938–39, a result which was particularly embarrassing when New Zealand was already having overseas exchange difficulties.

The season 1938–39 saw the first really effective use of the Labour Government's guaranteed price scheme for dairy produce. The price of butter averaged £130 a ton on the **United Kingdom** market, compared to £133 in 1937–38. The price of cheese fell more steeply to £65 a ton compared to £73 in 1937–38. The operation of the guaranteed price scheme resulted in payments to farmers being £2 ½ million higher than the amounts received for the sale of dairy produce. This extra payment

tended to stabilise farmers' incomes, but, by helping to keep up domestic expenditure, it no doubt contributed to the tendency for imports to remain high and for import payments to exceed the sum becoming available out of current overseas earnings.

At this time, though there was some sign of an upsurge in manufacturing industries, farming's position as New Zealand's main producer was virtually unchallenged. It was the chief contributor to the volume of goods and services in New Zealand, and almost the sole earner of foreign exchange. Unfortunately, this most important New Zealand industry was subject to violent fluctuations in the overseas prices for its products, an influence which, in spite of guaranteed prices for dairy products, tended to keep the whole economy in a state of undulation and uncertainty.

Fertile soil, equable climate and good farming methods, kept up to the mark by adequate research and technical advice, all contributed to enable New Zealand to enter the war with one of the most efficient farming industries in the world.

The average annual output of New Zealand farm produce for the three seasons 1936–37 to 1938–39 was:

164,000 tons of butter valued at	£20 million
88,000 tons of cheese valued at	£6 million
470,000 tons of meat valued at	£25 million ¹
309 million pounds of wool valued at	£15 million
Other farm products valued at	£14 million
	—————
TOTAL	£80 million

Of these, 85 per cent of the butter, 94 per cent of the cheese, well over half of the meat, and 92 per cent of the wool were exported. The foreign exchange earnings of these farm exports averaged:

Butter	£17 million
Cheese	£6 million
Meat	£15 million

Wool	£14 million
Other farm products	£4 million
TOTAL	£56 million

Other exports averaged less than £4 million a year, bringing the total to £60 million, of which farm products supplied 94 per cent.

The United Kingdom took four-fifths of all New Zealand's exports, including nearly all the food ² and over half the wool.

The pattern of New Zealand farming is fairly inflexible, sheep being based predominantly on the hilly and mountainous country, cattle on the pastures where winter feed can be more readily provided.

¹ At a rough estimate, actual values not known.

² Over 97 per cent in each of the four pre-war years.

WAR ECONOMY

NEEDS OF THE UNITED KINGDOM

Needs of the United Kingdom

In the immediate pre-war years, British farming supplied only about 30 per cent of her food requirements. Seventy per cent came from overseas, either as food or as feeding stuffs for livestock. About half of all meat used and 91 per cent of butter came from overseas. ¹

Before and during the war, efforts were made to expand **United Kingdom** farm production. Dr Hamilton wrote: ² 'As war-clouds gathered over **Europe**, a vigorous, if somewhat belated, policy of restoring British agriculture to full productive capacity was undertaken and subsidies were given for the ploughing up of old and worn-out grasslands, for drainage, and other types of land-improvement work.'

However, these changes could not do much to reduce dependence on imported supplies and it is not surprising that, within a few days of the outbreak of war, the **United Kingdom** had safeguarded part of her overseas supplies by entering into bulk purchase contracts to take New Zealand's exportable surplus of most farm products. ³

As early as 1937, the New Zealand and **United Kingdom** governments had discussed arrangements for the production and shipping of the greatest possible quantity of foodstuffs to feed the people in **Britain** in the event of war. There was already a precedent for wartime bulk purchasing arrangements. Export surpluses of meat, wool, cheese and butter had been purchased by the United Kingdom Government during the First World War.

When the necessity arose again, a quarter of a century later, negotiations and purchasing arrangements were made easier by the fact that the introduction of the guaranteed price for dairy products, in the 1936–37 season, had necessitated bulk purchasing arrangements for

these commodities. The Marketing Department, already in existence for this purpose, now provided, ready-made, the machinery for bulk purchase and shipment of farm products under the wartime contracts.

In the 1914–18 war, bulk purchasing arrangements had commenced for meat and cheese in 1915, for wool in 1916 and for butter late in 1917. In 1939, bulk purchasing agreements for all these commodities were concluded within two weeks of the outbreak of war.

¹ **Keith A. H. Murray, *History of the Second World War—Agriculture*, p. 38.**

² **W. M. Hamilton, *The Dairy Industry in New Zealand*, p. 14.**

³ **See p. 41.**

WAR ECONOMY

WARTIME CONTROLS

Wartime Controls

With the agreement between New Zealand and the **United Kingdom** for bulk purchase of New Zealand's exportable surplus of dairy produce, meat and wool, the Government took control of the marketing of most of New Zealand's farm produce.

The Government took much wider powers than this. On 15 September 1939, twelve days after New Zealand declared war, a Primary Industries Controller was appointed. ¹ He was given power to direct production and manufacture of primary products, requisition land, buildings, machinery and goods, and ration and control essential supplies. However, except for a few special cases, these powers were not used. Smallfield wrote: ² 'Full powers of control have not been required or exercised as, for instance, they have been in **Britain** under similar regulations, where farmers have been directed to grow certain crops and where farmers have been removed from their farms for inefficiency. The chief controls exercised under these Emergency Regulations have been over the manufacture of butter and cheese so that the **United Kingdom's** requirements for cheese could be met, over the sale of fat stock, seeds, and other essential supplies such as machinery, wire, etc., and rationing and manufacture of fertilisers.'

The **Department of Agriculture**, in the first months of war, established Primary Production Councils. Initially advisory bodies, these councils were later given some measure of administrative responsibility. Ultimately there were thirty-seven Councils, whose membership included voluntary members as well as local officers of the **Department of Agriculture**. Their work was co-ordinated by a National Council in **Wellington**. In the main, the administrative job of the councils was to ration supplies such as farm machinery, tractors, petrol, tyres and tubes, fertilisers, fencing wire, wire-netting and gumboots.

Once labour became short, farming, along with other industries, had to depend on the Director of Manpower to maintain an adequate labour supply. This dependence became even more apparent once power was taken, in January 1942, to direct labour to essential industries. Here, potentially, was the ultimate power in the Government's hands to control any industry. ³ Farming, except in the early days of war, when labour was not really scarce, received preferred

¹ Under the Primary Industries Emergency Regulations 1939.

² P. W. Smallfield in 'Wartime Farming', published in *Farming in New Zealand*, Department of Agriculture Bulletin No. 279, p. 65.

³ In manufacturing and construction, particularly, the tendency was, naturally, to direct labour to establishments which undertook war contracts. If, on occasions, this amounted to coercion to accept war contracts, such a practice does not seem to be too far removed from the purpose of manpower direction. (See also p. 163).

treatment and can hardly be said to have been controlled through this power in the Government's hands. The industry was not declared essential, a pre-requisite cloak of responsibility which other industries had to wear before labour was directed to them. ¹

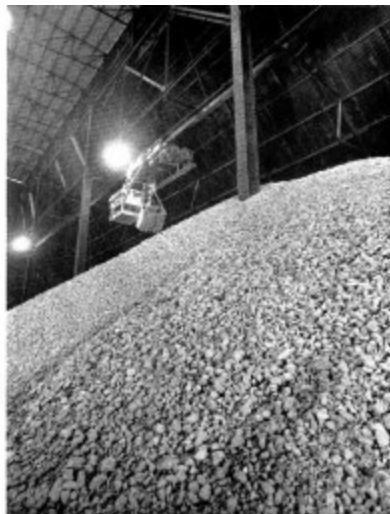


FERTILISER LOADING INSTALLATIONS, NAURU ISLAND

New Zealand's main source of phosphates, Nauru and Ocean Islands, were occupied by the Japanese in August 1942

FERTILISER LOADING INSTALLATIONS, NAURU ISLAND

New Zealand's main source of phosphates, Nauru and Ocean Islands, were occupied by the Japanese in August 1942



PROCESSING FERTILISER
IN NEW ZEALAND

Imported phosphate rock ready for conveyance by grab to the crushing mill

PROCESSING FERTILISER IN NEW ZEALAND

Imported phosphate rock ready for conveyance by grab to the crushing mill



FERTILISER SHORTAGE

With overseas supplies greatly reduced, the phosphate quarries at Clarendon, Otago, were reopened and helped to maintain a ration of fertiliser

FERTILISER SHORTAGE

With overseas supplies greatly reduced, the phosphate quarries at Clarendon, Otago, were reopened and helped to maintain a ration of fertiliser



WARTIME DAIRY FARMING

A Maori girl ready to start milking. Dairying was the main source of food exports to Britain

WARTIME DAIRY FARMING

A Maori girl ready to start milking. Dairying was the main source of food exports to Britain.



MANPOWER SHORTAGES ON FARMS
Servicemen assisting with the harvest

MANPOWER SHORTAGES ON FARMS

Servicemen assisting with the harvest



SERVICES VEGETABLE PRODUCTION

The scheme produced 84 million pounds of vegetables for New Zealand
and United States forces

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The scheme produced 84 million pounds of vegetables for New Zealand and United States forces



VEGETABLES FOR THE PACIFIC

Women at a Pukekohe factory coring cabbages for dehydration

VEGETABLES FOR THE PACIFIC

Women at a **Pukekohe** factory coring cabbages for dehydration



LINEN FLAX—A SPECIAL UNDERTAKING

Interruption in European supplies forced the United Kingdom to look for alternative sources

LINEN FLAX—A SPECIAL UNDERTAKING

Interruption in European supplies forced the **United Kingdom**

Thus, in the main, wartime controls over farming were restricted to marketing, rationing of some scarce supplies, and limited direction over production in one or two exceptional circumstances such as the butter to cheese switch in 1941 and its reversal two years later. ²

¹ In many cases, directed workers would have had to live in farmers' homes. See also p. 194.

² See also p. 199.



WAR ECONOMY

SHIPPING AND STORAGE DIFFICULTIES

Shipping and Storage Difficulties

In pre-war years, fears had been freely expressed of a possible six months' break in shipping should New Zealand become involved in a war with **Japan**. The obvious precaution of providing extra storage space for perishable food exports, especially butter, had been pointed out and discussed but nothing effective was done before the war. ³

At the outbreak of war the Government brought its influence to bear to see that some extra storage space was provided. As a condition of their licences to slaughter and export meat, it required all freezing works to provide at their own expense sufficient cool storage space for holding 60 per cent of their average kill of meat. ⁴ This extra storage space became available for the 1940–41 season.

A further indication of the Government's mounting anxiety to provide extra storage space was the trouble taken to salvage refrigerating equipment from a wrecked vessel, the *Port Bowen*, and use it to provide cool-storage space in an abandoned meat works. ⁵

It was most fortunate for New Zealand that **Japan** did not enter the war until December 1941. Consequently, the immediate disruption of shipping which had been feared did not eventuate. In the early months of war, shipping losses were not serious, and most of New Zealand's surplus production was sent to the **United Kingdom**. By March 1940 'the food stock position in England was an all time record'. ⁶

The German invasion of **Norway**, in April 1940, and the capitulation of **France** in June 1940, threatened to change the whole shipping position. **Britain** now had hostile U-boat and air bases on either flank. By December 1940, shipping losses forced her to reduce the amount of refrigerated shipping serving New Zealand and **Australia**.

³ As late as May 1939, all ONS could report was that its **Primary Industries Committee** 'has now produced a report on the question of refrigerated space in the event of a stoppage of exports, and is consulting with the various Companies concerned.'—ONS 124, 18 May 1939, 'Activities of the **Organisation for National Security**'. See also p. 43.

⁴ See also p. 45.

⁵ See also p. 119.

⁶ Hamilton, *The Dairy Industry in New Zealand*, p. 14.

Wherever possible shipping was diverted to the shorter Canadian, **United States** and South American hauls, where it could be more effectively used. In New Zealand, to make the best possible use of reduced refrigerated shipping space, the despatch of some lower grades of meat was delayed, while beef was boned out and lamb and mutton carcasses were telescoped. ¹

In 1941 the shortage of shipping became so acute that there was a serious accumulation of food in New Zealand. At that time it seemed probable that storage for this food would be necessary for a considerable period, and, in the emergency, the Government built large cool-store warehouses at high speed.

All this came at a time when New Zealand meat production was rapidly increasing. For a time it looked as if there might be an undue accumulation, followed by post-war dumping, as had happened after World War I. Further emergency cool stores were constructed, dehydration was resorted to, and more meat was canned. Canned meat did not need refrigerated space and there was considerable expansion of production in the later years of the war.

For the meat industry, the greatest relief came in 1942 with the

need to provide food for the **United States Forces in the Pacific**. The first **United States** forces arrived in New Zealand in June 1942, and from then onwards New Zealand supplied considerable quantities of food under Reserve Lend-Lease for use in New Zealand and in other parts of the **Pacific**.

In the second half of 1942 the **United States Joint Purchasing Board** took more than 10,000 tons of New Zealand meat. It was to require about 6000 tons a month, and considerable quantities of other foodstuffs, for the rest of the war. These orders took about a quarter of New Zealand's exportable surplus of meat. Meat supplied to the Joint Purchasing Board was not recorded as exports, yet meat exports, in spite of shipping difficulties in 1942, were no lower that year than the average of the preceding five years.

As an exporting year, 1942 was, on the whole, surprisingly good. Wool exports were the highest for six years and record quantities of cheese were shipped; but butter exports, though higher than in 1941, were well below normal. ²

Commenting on overseas trade in 1942, a **Wellington** daily paper said: ³

¹ 'Telescoping means severing the carcass crosswise at the pin-bone joint, and then packing the leg portion inside the trunk. This results in a considerable saving in storage and shipping space.'—Parliamentary Paper H-30 B, *Food and Other Supplies to the **United Kingdom** during the War*, p. 13.

² See also p. 199.

³ *Dominion*, leading article, 3 February 1943.

'The outstanding feature of the preliminary (trade) returns is the proof they afford of the sustained ability of the British shipping

authorities to lift the produce. In the third year of a World War they have provided shipping facilities for this distant source of supply which have enabled record quantities to be dispatched. There may be even more difficult days ahead, with intensification of the submarine menace, but what has already been achieved by the Merchant Marine constitutes a wonderful record, and shows plainly the success that has followed the unremitting efforts of the Navy to keep the sea lanes open. The figures also provide convincing evidence of a sustained effort to maintain, and where possible increase, production. The results have been obtained despite shortages of labour and material. Prices for our chief exports have moved little since the outbreak of war, so that an increase of £22·8 millions since 1939 must have been chiefly due to larger quantities. However viewed, the figures relating to our overseas trade for the past year give grounds for satisfaction, although probably many producers will make the reservation that the increase may to some extent have been made at the cost of future productive capacity.'

In fact, the volume of exports in 1942 was a record, and 6 per cent above the previous highest figure.

This high volume of trade was carried in spite of the fact that allied shipping losses were at their highest in the first half of 1942. It was not until well into 1943 that the Allies started to win the battle against the U-boats. Actually, a much lower shipping tonnage was available in 1942 than in the previous two years but, by extending the practice of deboning meat and telescoping carcasses, by canning and dehydrating, and in various other ways, it was used more intensively. ¹

¹ See also

Chapter 14. Of imports into the United Kingdom, R. J.

Hammond writes:

'The other principal contribution to ship-saving was by the boning of imported beef before shipment and the "telescoping" of frozen mutton and lamb carcasses in the refrigerated holds. In the calendar year 1939 only about one-tenth of beef imported was boned; in the twelve months ended September 1942 more than nine-tenths of the beef was boned, and all mutton and lamb telescoped. The average stowage factor for all meat was reduced from 100 cubic feet to 85 cubic feet; only by this means were imports maintained at the pre-war level despite an acute shortage of refrigerated shipping.' *History of the Second World War. Food. Vol. I: The Growth of Policy*, p. 224.

WAR ECONOMY

MECHANISATION OF FARMING

Mechanisation of Farming

As we have seen, the war came in a period of increasing mechanisation of farms. ² In 1930 there were 3900 agricultural tractors in use, but, by 1939, this number had increased two and a half times, to over 9600. The expansion continued apace during the war years, to reach over 18,900 by 1946. It was assisted by the receipt of over 7000 farm tractors from the **United States of America** under Lend-Lease. In 1930 there were 16,000 electric motors on farms. The number had reached 51,000 by 1939 and was to reach nearly 77,000 by 1946. Milking machines were in widespread use before the war and their wartime expansion is less spectacular. There were 20,000 plants in 1930, nearly 29,000 in 1939, and 31,800 in 1946.

It was not just a matter of making more power available on farms but of making power available in more convenient form. For example, electric motors were taking over from internal combustion engines. From 1939 to 1946 the number of electric motors used on farms increased by 51 per cent, while the number of internal combustion engines decreased. The electric motor required much less personal attention. Electrical equipment in the home tended in the same direction, allowing the farmer and his family more time to work on the farm and reducing their need to bring in paid labour.

These changes are summed up in the following table:

¹Source, *New Zealand Official Yearbooks*. Numbers rounded for convenience in reading, but percentages are calculated on original figures.

WARTIME CHANGES IN FARM MECHANISATION ¹

1939	1946	Percentage Increase
------	------	---------------------

(*Thousands*)

Agricultural Tractors	10	19	97
Milking Plants	29	32	10
Shearing Machine Plants	10	14	35
Internal Combustion Engines	23	22	-5
Electric Motors	51	77	51

² See also Chart 4 on p. 15.

WAR ECONOMY

FALLING FARM LABOUR REQUIREMENTS

Falling Farm Labour Requirements

The process of mechanisation of farming, with improved methods, was well under way before war broke out. Though it is probable that wartime shortages of labour hastened it, it was by no means a wartime phenomenon. In fact, the underlying situation seems to have been that, both in times of unemployment and in times of labour shortage, mechanisation (and the accompanying improvements in methods) was having a profound effect on farm labour requirements. The situation was reached, probably somewhere around 1940, when the general upward movement in farm output was accompanied by a small but progressive reduction in farm labour needs. That is to say, the amount of labour required to produce each unit of output was falling, and the stage was reached where this fall in labour requirements per unit was fast enough to cancel out the extra labour needs for increasing production, so starting a slow but progressive fall in the overall amount of labour needed on farms.

In contrast, wartime thinking was in terms of steadily increasing farm labour requirements. Early complaints of labour shortage on farms reinforced this view, and there was no statistical information to show the true position. Between the 1926 and 1936 population censuses, the numbers engaged in farm work had increased by nearly a quarter. Employment conditions generally in 1936 differed from those in 1926, but there seems to have been an increase of over 2000 a year in farm labour requirements between these two censuses. The question on farm labour in the annual statistical return from farmers had ceased in 1930, and no other information on farm labour was available. What, then, more natural than to assume that farm labour requirements would go on increasing by about 2000 a year after the 1936 census?

This assumption was to be proved faulty, but the proof came too late

to prevent frustrating and costly misjudgments in time of war, when they could least be afforded.

The population census due in 1941 was not taken, and, without it, there is no accurate measure of farm employment in the late thirties or early forties. The 1936 census had shown 148,000 males in farming; the 1945 census showed only 115,000.¹ The 1945 census was taken when there were still 45,000 men, from all industries, in the armed forces. Nevertheless, this inter-censal drop indicated the need for careful re-examination of ideas about farm labour requirements. It no longer appeared reasonable to assume that there had been an increase in requirements, which had been frustrated by armed forces recruitments. The fall in numbers engaged was much greater than the loss to the armed forces.

If the circumstances of the 1945 census left doubts about the matter, the 1951 census, taken at a time when recovery from the war had been reasonably complete, was to remove them, by showing only 117,000 males in farming.

Thus, on a comparable basis, the number of males in farming decreased from 148,000 in 1936 to 117,000 in 1951. At some time, probably after the 1936 census, farm labour requirements must have reached a peak and started to fall. Judging by the unfortunate experience in 1944,² when the number of men withdrawn from armed service for farm work proved to be substantially more than was required, the peak and down-turn in labour requirements must have

¹ Census procedures have been changed several times since 1936. Officially published figures are, as a result, not comparable over time. Here, and in the figures used on p. 191, the 1936, 1945, 1951 and 1956 censuses have been made comparable as to exclusion of unemployed, inclusion of Maoris, inclusion (by pro-rating) of those who did not state their industries, and adoption of identical industrial classifications. To achieve this, some arbitrary adjustments have had to be made, but the figures are believed now to give a good indication of changes. See also

² See p. 194.

occurred pre-war or very early in the war. Be that as it may, misapprehensions about farm employment seem to have distorted wartime estimates of labour distribution, with the result that these estimates cannot be reconciled with pre-war and post-war census results.

The rapid mechanisation of farming has already been illustrated.¹ Methods generally were being improved and more farm work was being done on a contract basis. Contract work made for a more efficient use of labour and gave a better opportunity for further mechanisation. It considerably reduced the number of men directly employed by farmers.

The reduction in farm labour needs seems to have been fairly general. The most rapid fall was in dairying, but a post-war report on sheep farming includes the following paragraph:²

‘It is also interesting to note that the number of sheep and breeding ewes to one unit of labour has increased greatly in the last thirty years.

<i>Number of Sheep to One Labour Unit</i>	<i>Number of Ewes to One Labour Unit</i>
1916 666	344
1921 719	375
1926 716	401
1936 875	543
1945 1000 *	633 *

‘The doubling of the number of breeding ewes to one labour unit may be ascribed to the fact that dry-sheep numbers have fallen in this thirty year period, being replaced by breeding ewes on the better pastures.’

¹ Chart 4, p. 15, and p. 188.

² **Parliamentary Paper H-46 A, 1949, *Royal Commission to inquire into and Report upon the Sheep Farming Industry in New Zealand.***

*** Estimate only**

WAR ECONOMY

HAND STRIPPING ON THE WAY OUT

Hand Stripping on the Way Out

In dairy farming the reduction in labour requirements was given an impetus by the discovery that hand stripping, long considered an essential for the efficient use of milking machines, could be eliminated without significant ill-effects. It is difficult to trace precisely the spread of the practice of no hand stripping. In 1941 the **New Zealand Dairy Board** was able to refer to 'The increasing tendency to abandon the practice of stripping after machine milking'.³ The move must still have been fairly tentative when war broke out, but a survey, made in November and December 1941, of about thirty herds where no hand stripping had been done for one or more years, indicated little if any resulting fall in output per cow.¹ Though the sample was hardly large enough to be conclusive, this result confirmed the practice and hastened its spread.

By the 1943–44 season, information was being taken from 266 herds where there was no hand stripping, including 32 where non-stripping had been the practice for 'at least 4 or 5 seasons'. Still the change showed only a minor reduction in butterfat production per cow. Said the Dairy Board,² '... a fairly large sample of farmers have demonstrated their ability to maintain herd levels of production without the necessity of hand-stripping of cows.'

It is likely that the practice of eliminating hand stripping continued to spread throughout the war, progressively reducing labour requirements on dairy farms. It may well have been the most important influence leading to the reduction of farm labour requirements.

In short, rapid mechanisation and changes in farming methods were making it possible, in most types of farming, to produce an increasing output with a stable or decreasing labour force. By far the greatest fall in

numbers of men engaged was in dairy farming, where there were some 75,000 at the 1936 census and only about 46,000 in 1951. Dairy farming thus accounted for 29,000 of the 31,000 men who moved out of farming in the 15-year period, 1936 to 1951. The fall in numbers engaged was to continue, but more slowly. By 1956 there would be only 44,000 men in dairy farming. By way of contrast, the numbers engaged in sheep farming decreased by less than 2000 between 1936 and 1951 and, by 1956, would have moved back to 3000 above their 1936 level.

³ 17th Annual Report of the [New Zealand Dairy Board](#), 1941, p. 14.

¹ 20th Annual Report of the [New Zealand Dairy Board](#), 1944, p. 9. The survey was also reported fairly fully in the February 1942 issue of the *Journal of Agriculture*.

² *Ibid.*, p. 49.

WAR ECONOMY

ARMED FORCES RECRUITMENTS HAVE THEIR EFFECT

Armed Forces Recruitments have their Effect

Though the farmers were one of the first groups to complain about the depletion of the civilian labour force by armed forces recruitments, they do not seem to have been seriously inconvenienced until later in the war. Labour requirements on farms decreased during the war, but labour requirements were increasing in manufacturing and in most other industries. Consequently, though certainly in need of some protection, farmers were generally better able to sustain losses to the armed forces than were most other essential industries. Unfortunately, this difference in labour force trends was not recognised during the war, and as a consequence mistakes were made.

Losses of men to the Armed Forces were considerable and it was inevitable that, in spite of the falling tendency in farm labour requirements, farmers would, before too long, run short of labour. In the very earliest days of voluntary recruitment for the wartime Armed Forces, farming did not receive any special manpower protection, and considerable numbers of farm workers entered the forces. Very soon there were complaints from farmers, but, with a pool of unemployed labour still unabsorbed, these complaints were not at the time taken too seriously. ¹ However, during the 1940–41 season, the **National Service Department** regarded the farming industry as on the priority border-line and the brake was increasingly applied to the recruitment of farm workers. ² In the 1941–42 season, because of increasing pressure for food production and the labour losses already sustained, the labour priority for farming was much higher.

To strengthen the New Zealand home defence forces after **Japan** entered the war in December 1941, it was necessary to call for men from all industries. By February 1942, over 40,000 extra men had joined the forces, bringing the total strength to nearly 124,000. No accurate

estimate can be made of the number lost to farming, but it almost certainly exceeded 20,000. ³

¹ See also p. 83.

² Parliamentary Paper H-11 A, Report of National Service Department, 1946, p. 35.

³ See also p. 94.

WAR ECONOMY

SPECIAL MANPOWER ASSISTANCE TO FARMERS

Special Manpower Assistance to Farmers

The farm labour problem was now becoming difficult and, with increasing pressure for extra food production, the Government gave such assistance as it could, consistent with maintaining its defences against possible invasion. At harvesting time, when labour requirements were at their peak, an arrangement was made for farmers to draw men temporarily from the Armed Forces. These men remained under military discipline, and the harvesting became in effect a type of army operation. Ten thousand men were used in this way in the 1941–42 season, and eight thousand in 1942–43. This arrangement looked after the most difficult seasonal peaks for labour on farms and enabled recruiting for the Armed Forces to be carried on in spite of the rising pressure for extra food production. By the end of 1942, the Japanese drive in the South Pacific had been stopped, and it became possible to reduce the home defence forces. Farming again received favoured treatment; up to the end of March 1943, sixteen thousand men were released from the home defence forces, and of these over half were farm workers.

Special arrangements were made, also, to put women on farms. At the 1936 census, 7000 women were engaged in farm work. To meet wartime labour difficulties an attempt was made to find extra women to work on farms. However, in the early stages of the war, the farmers were not ready to receive them. They considered the work unsuitable for women and objected to women receiving the same wages as men. By the end of 1941, with male labour becoming much harder to find, these difficulties were overcome, and a Women's Land Corps was formed. Initially, in the effort to satisfy the farmers, the wages and conditions of work were not made sufficiently attractive. In June 1942 the Corps had only 146 members and was unable to find recruits for known farm vacancies. In August 1942 conditions were improved, and the name of

the organisation was changed to 'Women's Land Service'. By the middle of 1943, some 800 women were employed and, by March 1944, the number had increased to nearly 1900.

University students and senior school pupils also assisted as vacation workers. During the 1943–44 vacation, it was arranged that the universities should resume at the beginning of April instead of the beginning of March, so that students could help at the peak of the season. In addition, the Education Department agreed that senior school pupils should be allowed to work for an additional month after the normal holidays.

Throughout the 1943–44 season, farming continued to receive manpower assistance in various ways, though it still had to contribute a share towards the manpower requirements of the New Zealand forces overseas.

Though a great deal was done to assist with farm labour difficulties over these years, some farmers do not seem to have been particularly co-operative. The experience of the **National Service Department** in 1944 is illustrative and worth quoting in full from the Department's 1946 report:

1

'By the beginning of 1944 the demand for foodstuffs and other farm products by the **United Kingdom** and both the American and New Zealand forces in the **Pacific** became so great that it was decided to bring back those men of the Third (**Pacific**) Division who would volunteer for farming or other selected essential work.

'It was estimated that 7,000 men could be absorbed by the farming industry, and plans for the return of Third Division personnel to meet this estimate proceeded accordingly. At the same time action was taken to obtain returns of actual labour

¹ Parliamentary Paper H-11 A, Report of the **National Service Department**, 1946, p. 36.

requirements from farmers. The response by the farming community was slow and disappointing. ¹ Although farmers' organisations had been stressing the acuteness of the labour shortage, and despite intensive publicity, applications for these men were notified to the Department in dilatory fashion. Applications totalled only 107 as at 28 April 1944, and this figure increased to 973 by 10 May 1944, and 1,713 by 26 May 1944. At this point the quota to be released from the Third Division for farm work had to be revised in the light of applications received, and reduced to 5,000. As late returns from farmers continued to come to hand the vacancies notified increased to 3,337 by 30 June 1944, and 4,504 by 31 July 1944. The labour needs of the farming industry as notified were fully met, and at the end of November 1944, 4,286 of a total of 9,100 men released from the Third Division were working on farms.'

Throughout all these vicissitudes, farming was never declared an essential industry. It is perhaps an indication of the strength of the farmers as a pressure group that, in spite of their receiving so much manpower assistance, they were able to avoid the preliminary step which other industries had to take of being declared essential. Essentiality would of course have placed obligations on the farmers themselves, and what actually happened was that they received the benefits of essentiality without accepting its special obligations.

Some of the reasons why the farming industry did not wish to be declared essential were stated by Mr A. P. O'Shea, Dominion Secretary of the New Zealand Farmers' Union, in November 1943. In replying to criticism by Mr **R. C. Clarke**, Chairman of the Auckland District Council of Primary Production, he said: ²

'To those who are fully conversant with the position here, it is obvious that Mr Clarke has spoken either without a complete knowledge of the facts or else without fully appreciating that the question of declaring farming an essential industry has been fully considered a number of times by the Farmers' Union and the **National Service Department** in consultation. There has always been unanimous

agreement that to have farming declared essential would not work. In the first place it should be pointed out that it is difficult enough to get satisfactory work from the man who is kept unwillingly in secondary employment; the position would be impossible in farming. If a dairy farm hand was kept at that work against his will he could wreck a herd in an incredibly short space of time. There is the further point that, in the majority of cases, farm hands live with the farmer and his family. To compel

¹ In fairness to the farmers, it should be added that the men were to become available at a time when farm labour needs were not seasonally high. (Author's footnote.)

² As reported in the *Dominion*, 16 November 1943.

a man who was unwilling to do so to stay on a farm under these conditions would give rise to an intolerable position. What Mr Clarke should realise is that this matter has been thoroughly thrashed out at Farmers' Union meetings all over New Zealand. Up to date no one has indicated the way difficulties referred to can be overcome. Until this is done there is little sense in advocating that workers on farms should be brought within the scope of the Regulations.'

This sounds very reasonable, but it should be assessed against the fact that between 1 October 1943 and 31 March 1946, some 13,300 men and 3300 women were in fact directed into farming. ¹

Some idea of the protection given to farm labour, in spite of the fact that farming was not declared essential, can be gained from a January 1945 statement of the Director of National Service in which he referred to the country's last reserve of military manpower as the 'group of 32,483 men, who lacked three years' overseas service but were held in essential industry, 11,874 of them in farming....' ²

¹ **Parliamentary Paper H-11 A, Report of the National Service Department, 1946, p. 140. The figures include persons directed into flax and vegetable growing. The same report, at p. 32, says, 'Persons were directed only to undertakings declared essential, except in a few special cases, particularly farming', and, at p. 36, 'Male workers were directed from other industries to the farming industry. Between October, 1943, and March, 1944, 457 men were so directed.' In most cases, men were 'placed' on farms, not 'directed', persuasion being used rather than the compulsory powers.**

² **Quoted by Wood, p. 292.**

WAR ECONOMY

FERTILISER SHORTAGES

Fertiliser Shortages

In the inter-war period, the practice of topdressing farms with artificial fertilisers had become widespread, and by 1939, nearly a quarter of the pastures were being topdressed annually. The high carrying capacity of much New Zealand pasture was made possible by this regular topdressing. Fertiliser usage was well over 600,000 tons a year in each of the two seasons preceding the war. It had doubled in less than twelve years.

Roughly three-quarters of this annual use of fertiliser was superphosphate, for which New Zealand was dependent on supplies of rock phosphate from **Nauru and Ocean Islands in the **Pacific**, and from North Africa. The sulphur needed for the superphosphate came from the **United States, Japan** or **Italy**.**

By the outbreak of war precautions had been taken against interruption of supplies, and 80,000 tons of rock phosphate was in store, equivalent to about one-third of a year's requirements. Fortunately, there was no immediate break in supply, although imports of basic slag and other phosphates declined from over 80,000 tons a year before the war, to under 35,000 tons a year in 1940 and in 1941. In the first two years of war, the use of fertilisers increased considerably, to reach nearly 700,000 tons in 1940–41, 14 per cent above 1938–39. However, in November 1940, five phosphate ships were sunk and the Nauru Island installations were bombarded by German raiders. In December 1941 **Japan's entry into the war imperilled **Pacific** communications. Nauru Island installations received damaging attacks from Japanese bombers and, in August 1942, Japanese forces occupied the island.**

Fertiliser supplies from alternative sources were scarce, and usage fell to 500,000 tons in 1941–42, to 360,000 in 1942–43 and to 285,000

tons in 1943–44. This was well under half of pre-war usage, a truly drastic fall. Rationing was necessary,¹ and falls in output were expected to result. They did not eventuate. Ross suggests there was a residual in the soil from earlier applications which saved the situation.²

The limited supplies of fertilisers available from alternative, more distant, sources were dearer but were subsidised to hold the price reasonably close to its pre-war level.

Use of lime had also increased rapidly in the pre-war decade and, when wartime difficulties created shortages of phosphate fertilisers, even more lime was used. Lime being available in ample quantities in New Zealand, the main problem was cartage of a commodity with a very great weight for value. Rail and road cartage were subsidised.³ By 1943–44 the area topdressed with lime only was well over three times the pre-war area.

Imports of phosphatic fertiliser were at their lowest in 1942 and 1943, when arrivals were less than one-third of 1939. Thereafter they increased steadily, but did not reach the 1939 quantity again until 1949. To eke out supplies, serpentine superphosphate was made, including one part in four of ground serpentine rock. This produced a fertiliser with some advantages over superphosphate.⁴ The phosphate quarries at **Clarendon**, in Otago, were reopened after being inactive since 1924, and produced small quantities of rock for making superphosphate. In spite of all these endeavours, the area of grassland topdressed in 1944–45 was still 10 per cent below 1938–39.

Chart 41 shows the areas topdressed in each year from 1934–35 to 1948–49, including topdressing with lime, artificial fertiliser, or both.

Chart 41

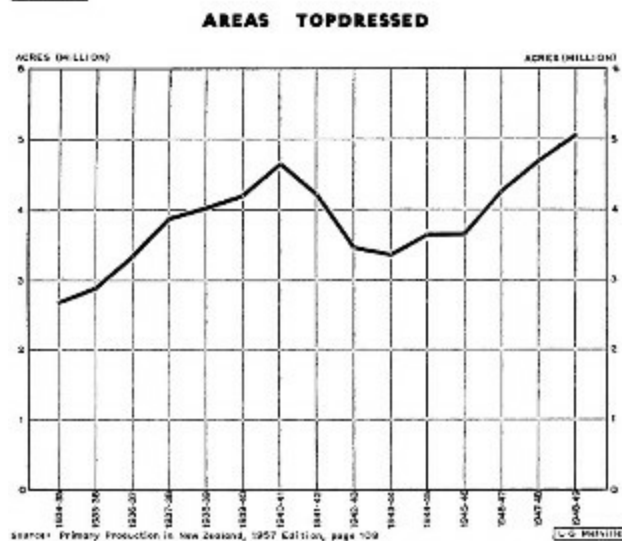


Chart 41
AREAS TOPDRESSED

¹ The Phosphatic Fertilizer Control Notice, June 1941.

² A. A. Ross, *Wartime Agriculture in Australia and New Zealand, 1939–50*, p. 266. See, however, the reference to hay and silage yields (p. 198, [note 1](#)).

³ Free carriage of lime by rail had been a long-standing concession to farmers.

⁴ *Primary Production in New Zealand*, 1946, p. 26.

WAR ECONOMY

DECLINING DAIRY COW NUMBERS

Declining Dairy Cow Numbers

After 1934–35, dairy herds, which had increased year by year for nine years, started to decrease in numbers and continued to decrease until 1939–40, by which time they were 5 per cent below 1934–35. There was a slight recovery in 1940–41, which was sustained into the following season, but in 1942–43 the number of cows in milk fell again, to reach its lowest level since 1932–33. There were fewer still in the last two wartime seasons, and the war ended with 2 ½ per cent fewer cows in milk than in the immediate pre-war season 1938–39. This was in marked contrast to breeding ewe numbers, which increased by 10 per cent over the war period.

Farming activities were undergoing a distinct change in emphasis. For each dairy cow in milk, there had been 16·1 sheep in 1934–35. In 1938–39 there were 18·5 and in 1944–45 20·2 sheep.

Chart 42 shows in clearer perspective the change in emphasis in farming:

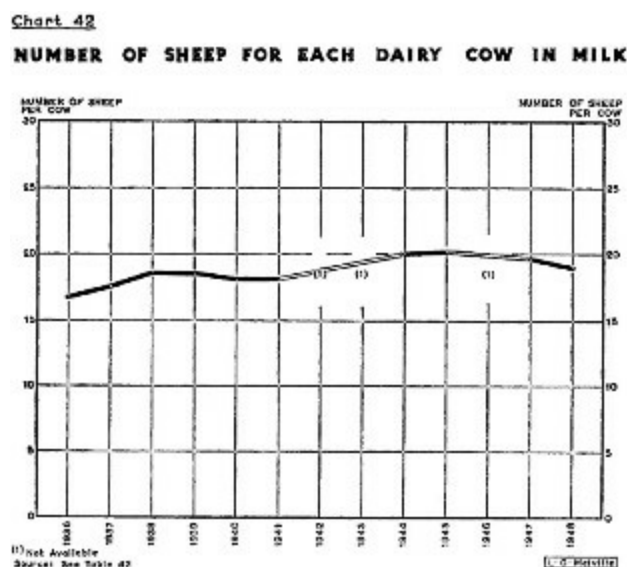


Chart 42

NUMBER OF SHEEP FOR EACH DAIRY COW IN MILK

In the war years, livestock on dairy farms declined quantitatively as well as relatively. Between 1938–39 and 1944–45 the number of dairy cows fell by 45,000, while the number of sheep increased by 2,100,000. It is not surprising that, whereas the 1944–55 production of wool was an all-time record, the 1944–45 production of butterfat had been bettered in five preceding seasons, including one as far back as 1935–36.

In terms of war requirements, the change in emphasis did not necessarily represent the most advantageous use of farm resources.¹ Butterfat production, at a time when it was most urgently needed by the **United Kingdom**, in 1942–43 and 1943–44, fell well below its pre-war volume. On the other hand, wool production exceeded requirements and was stockpiled to an embarrassing extent during the war. A more desirable consequence of increasing sheep numbers

¹ In the **United Kingdom** the tendency was in the opposite direction. Sheep numbers decreased while cow numbers increased. A contributing influence in New Zealand may have been a declining yield of hay and silage for winter feed, brought about by the gradual effect of fertiliser shortages and by scarcity of labour.

was higher lamb production. The number of lamb carcasses exceeded the pre-war figure in every war year. Lamb was New Zealand's most important meat export and played a major part in filling out the meagre **United Kingdom** meat ration.

The wartime diversion from dairy to sheep farming played little part in bringing about the reduction in farm labour needs. On the basis of pre-war manpower requirements, the 7 per cent increase in sheep numbers would have needed rather more than 2000 extra men on farms, whereas the 3 per cent reduction in dairy cow numbers would have reduced requirements by about the same number of men. However, as is clearly shown by the 1936 to 1951 census comparisons, and by the other surveys mentioned above,¹ mechanisation and methods changes

were considerably increasing the number of sheep, and still more the numbers of cows, which could be handled by a unit of labour.

¹ pp.190 and 191. There was unemployment in 1936 and labour shortage in 1951 but, even when allowance is made for this difference, the censuses reveal a very material increase in stock per labour unit on farms.

WAR ECONOMY

CHEESE INSTEAD OF BUTTER

Cheese Instead of Butter

After the German conquest of the **Netherlands** and **France**, the **United Kingdom Government**, in **June 1940**, asked **New Zealand** to switch dairy production as far as possible from butter to cheese. It was hoped thereby to increase the arrivals of cheese, then approaching 100,000 tons a year, by 15,000 tons.

Of the reasons for the change, Hamilton writes: ²

‘Not long after the outbreak of war the **British Ministry of Food** expressed a preference for cheese rather than butter or meat, and gave it priority over all other refrigerated foodstuffs. Butter is purely an energy food containing only a trace of protein and being poor in minerals, but relatively high in the vitamins A and D. Cheese, on the other hand, is a well balanced food rich in protein, fat, and the important minerals calcium and phosphorus. Per cubic foot of shipping space, cheese provides twice the energy value and more than twice the protein content of telescoped frozen lamb and is also markedly richer in mineral and vitamin content.

‘Cheese in wartime is essentially a substitute for meat, superior in nutritive value, much more economical in shipping space, and less vulnerable in land store to damage from enemy raids, as it can be kept for some time without refrigeration.’

² W. M. Hamilton, *The Dairy Industry in New Zealand*, Bulletin 89 of Council of Scientific and Industrial Research, p. 16.

Within a year, the output of cheese had increased by a quarter, and exports to the **United Kingdom** had increased by much more than the

15,000 tons requested.

In April 1941 still more cheese was asked for, to bring supplies, if possible, to 160,000 tons, almost twice the 80,000 tons exported in 1938–39. In the attempt to meet this request, cheese production in 1941–42 moved up to 85 per cent above 1938–39, and 132,000 tons was exported.

The changeover from butter to cheese involved well over six thousand dairy farmers, but was achieved largely by persuasion rather than compulsion. Less than a hundred farmers had to be issued with orders to change. ¹ One view of the changeover is given by A. A. Ross, who writes: ²

‘The success of this great change in the dairy industry calls for examination, for there was no reliance on price incentives, control measures, or rationing preferences. The Director of the Dairy Division ³ had the confidence of the farmers and his prestige and personality were such that his request for the change was sufficient to evoke the necessary response from men capable of it. Not only did the dairy farmers hold the director in high regard, but the officers of the Division preferred persuasion to compulsion. The procedure adopted was a national appeal by the director to all farmers able to make the change to do so as soon as possible. Local officers of the Division called on each farmer personally, pointed out the need for the change, and discussed ways and means of overcoming difficulties. The farmer usually changed after this visit. Those who did not, received a visit from a senior officer of the Division, and if this was not successful a personal letter went from the director to the recalcitrant farmer asking for his cooperation so that it could be said that the dairy industry met the situation without the use of compulsory powers which the director possessed but was averse to employing. Only after all these approaches had failed would the director issue an order to change, and the issue of the order induced the most obstinate farmer to make the change.’

In the 1940–41 season, in spite of increasing emphasis on cheese,

butter production stayed at pre-war levels, but in 1941–42 butter production fell by 32,000 tons.

The change to cheese required considerable reorganisation of dairy factories. Butter factories were converted to cheese-making, disused

¹ Powers to make such orders were taken by an amendment to the Primary Industries Emergency Regulations 1939.

² Ross, *Wartime Agriculture in [Australia](#) and [New Zealand](#)*, p. 267.

³ [W. M. Singleton](#).

factories were re-equipped, and existing cheese factories were extended. Extra transport arrangements were needed to cope with the bulkier whole milk, and rush orders had to be placed for thousands of large cans.

The increased emphasis on cheese production lasted for only two seasons, but in these two seasons exports equivalent to nearly three normal seasons were sent to the [United Kingdom](#).

In 1942, Japanese successes in the [Pacific](#) again interfered with the flow of food to the [United Kingdom](#). Valuable sources of vegetable oils were lost, leaving inadequate raw materials for margarine. On the other hand, supplies of cheese available from [North America](#) were much better than had been expected. In June 1942 the United Kingdom Ministry of Food asked New Zealand if she could change back to butter manufacture. The Ministry requested this complete reversal of policy in the following cablegram: ¹

‘Vicissitudes of war have fundamentally changed our dairy produce position. Since we requested you to increase cheese supplies at expense of butter our fat position has been prejudiced by loss of raw materials

margarine from **India** and **Far East** while unexpectedly heavy quantities cheese are now available on short haul from **North America**. Would you consider whether in the interests of our two countries it might be possible to increase your butter and decrease your cheese supplies. Not only would this assist our fat position but it would also be advantageous to you should shipping position further deteriorate in that you would find surplus butter easier to handle than surplus cheese. Please consider this as a suggestion and let us have your frank comment taking into account your own problem [as] well as our need. In the event of your being able to contemplate such a change would you consider whether it would be possible to increase your butter by 20,000 to 30,000 tons and reduce cheese supplies by 40,000 to 60,000 tons. Grateful if you will cable your reaction earliest so that we can consider your position before examining problem further.'

This request also was accepted, and the change back made in the 1942–43 season. Less persuasion and pressure were brought to bear on farmers,² and probably less was necessary. Farmers were advised that the pressing need for extra cheese no longer existed and they could revert back to normal production. By March 1943, most of the factories which had changed from butter to cheese in response to the 1940 and 1941 requests had reverted back to butter.

¹ Quoted in Parliamentary Paper H-30, Marketing Department (Export Division), 1943, p. 11.

² Any necessary powers were taken in the Dairy Supply Control Order 1942.

Chart 43 shows how butter and cheese production was affected by the switch in emphasis from butter to cheese and back.

Chart 43

BUTTER AND CHEESE PRODUCTION

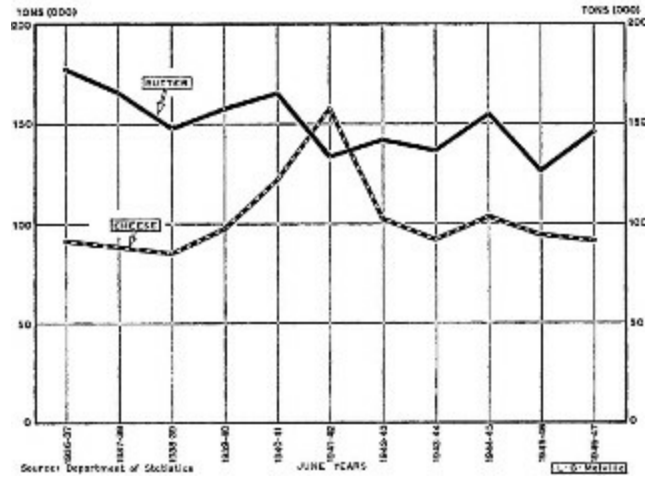


Chart 43

BUTTER AND CHEESE PRODUCTION

WAR ECONOMY

A BAD SEASON IN 1943-44 AND THE INTRODUCTION OF RATIONING

A Bad Season in 1943-44 and the Introduction of Rationing

The 1943–44 season started badly, with unfavourable weather and heavy lambing losses. Butterfat production was to be the lowest since 1931–32 and more than 10 per cent below the average of the four previous seasons. With Pacific forces to be supplied and the **United Kingdom** already on very short rations, this was a severe blow to the allied economic war effort.

A **Wellington** daily paper summed up the situation in October 1943: ¹

‘The adverse weather conditions that have prevailed since the commencement of the 1943–44 season must have a very serious effect on production. The national income will be reduced and there will be other unwelcome results, but to most people the really vital aspect will be the possible reduction in the capacity of the Dominion to provide the British food authorities with

¹ *Dominion*, second leader, 16 October 1943.

foodstuffs which they look to us to supply. Last production year our exports of butter fell by 84,700 cwts, and cheese by no less than 405,000 cwts, and the only offset to this adverse movement was an increase of 35,700 cwts in butterfat. ¹ If production in the coming season should result in still further reductions, then the position in **Britain** would be serious, for this country is her largest supplier of these essential products.

‘It is admitted that several factors have handicapped the producers, particularly the cumulative effects of the lack of fertilisers and the shortage of labour, but the position presents a challenge to New Zealand,

as it has to **Australia**, and the prompt action taken there is called for here. The scope is admittedly limited, but there is one course open to the Government that could and should be taken, namely, to ask the domestic consumer to make a practical contribution in the form of rationed quantities. According to the chairman of a northern dairy association, the Minister of Agriculture, during the election campaign, placed the British requirements from us for the current year at 115,000 tons of butter. That would necessitate an increase of over 240,000 cwts on the total exported last production year, and, with the bad start made this season, it would be futile to look solely to the dairy farmer to make good that balance. But in all probability it could be done if local consumption were placed on the same per capita basis as in both **Australia** and **Canada**, although the longer the Government delays its decision the less the prospect of success.

‘On the production side, something might be done if supplies of phosphate could be obtained from North Africa. The Federal authorities, it has been reported, are testing phosphate deposits in **Western Australia**, in the hope that some supplies may be obtained, but, apart from whatever the deposits at **Clarendon** can be made to produce, the Dominion will have to rely on increased shipments from overseas. If the shipping position has improved, and there is reason to believe that it has, then the authorities should make renewed efforts to get cargoes from **Tunisia**, as a means of increasing the output of foodstuffs.

‘Nothing can be done to replace the losses the farmers have suffered in the heavy lamb mortality and in other ways, but the community can assist to maintain supplies of dairy produce to Great Britain. With the winter weather approaching there the need for these things is increasingly great, and in its domestic consumption the Dominion has a substantial reserve that should be tapped, with a contribution for the best possible purpose, the health and welfare of the **United Kingdom**. We were told last

¹ *Sic.* Butterfat production was down by 7 per cent.

June that, if rationing of butter came in, it would apply to the 1943–44 season. That commenced on 1 August last and no action has been taken. The consumers' contribution could have provided some thousands of tons in the period that has been allowed to elapse with nothing being done.'

Butter rationing was introduced in October 1943 and meat rationing in March 1944, both to continue, with varying intensity, until after the war. Butter consumption in New Zealand fell, as a result, from 48 lb a head in 1942–43 to 36 lb a head in 1944–45 and 31 lb a head in 1945–46. ¹ Similar figures for meat are not available for the war years; however, the following extract from the 1945 *Official Yearbook* ² gives some idea of the order of the extra exports made possible by rationing: 'It is anticipated that the present (October, 1945) scale of meat rationing in New Zealand will enable an additional 35,000 tons of meat (per year) to be exported as compared with the position before meat rationing was introduced.'

The same *Yearbook* contains an estimate of the extra exports made available by rationing of dairy produce: 'As a result of the present (October, 1945) restrictions on the consumption of butter and cream, it is anticipated that an additional 15,000 tons of butter per year will be available for export as compared with the position obtaining before the restrictions were applied....'

¹ **New Zealand Dairy Board Annual Report, 1960, p. 40.**

² **p. 603.**

WAR ECONOMY

MEAT PRODUCTION AT HIGH LEVELS

Meat Production at High Levels

Production of meat was very close to 520,000 tons in each of the war years except 1940–41 and 1943–44. ³ This was 14 per cent above the average of less than 460,000 tons for the three pre-war seasons. Even in the two abnormal wartime seasons, production was still well above its pre-war level. Production of only 502,000 tons in 1940–41 was in part due to shipping difficulties, while the 1943–44 season, in which 493,000 tons were produced, was bad climatically, and output of all farm products dropped. Even in this bad season, meat production was 8 per cent above the pre-war figure.

High meat production had not always been an unmixed blessing. There had been a tendency in 1939 for the **United Kingdom** market to be over-supplied, resulting in a decision to reduce imports of mutton and lamb to 3 per cent below 1938. Rising New Zealand production in 1939 had, therefore, created considerable anxiety, but the war, followed swiftly by bulk purchasing arrangements, completely changed the situation.

³ Tonnage estimates used in this paragraph were given by **P. W. Smallfield**, in **Department of Agriculture Bulletin 279**, p. 69. They exclude offals.

Meat exports in 1939–40 were a record, ¹ and 12 per cent above the previous highest year. Shipping difficulties kept production and exports down in 1940–41 and, in December 1941, the meat industry received a shock when the **United Kingdom**, faced with heavy losses of shipping to U-boats, diverted refrigerated shipping from the Australasian service to the South American service, which took only half as long. ² As a result, stocks piled up in New Zealand, and storage was soon filled. Emergency

cold storage facilities had to be erected at high speed. The reduction in shipping came at a time when production of meat was increasing fast, and all possible measures had to be taken to cope with the emergency. Beef was boned out and lamb and mutton carcasses were telescoped, in order to make the utmost possible use of available refrigerated shipping. Canning and dehydration of meat were used to avoid the need for refrigerated shipping space, but it was still feared that substantial quantities of meat might accumulate in cold storage during the war, to create an over-supply on the world market when in due course it was released. New Zealand had memories of this type of situation at the end of the First World War.

Writing of shipping shortages, A. A. Ross says, ‘... the British Government was forced to refuse to lift certain classes of lower-grade meat such as beef and ewe and wether mutton, and these meats were unshipped for a number of years’. ³

This was not a new problem. In pre-war years, also, heavyweight mutton and second grade beef had been difficult to sell. The [Department of Agriculture](#) wrote in 1939: ⁴

‘... So far as export lamb is concerned there is no need for any apprehension that increasing quantities cannot be satisfactorily marketed within the quota limits, but a very serious position has arisen, and will continue to exist in the export of aged-ewe mutton. This class of meat is the least wanted in Great Britain, and some method must be arrived at whereby this class of mutton is reduced to make full room for expanding lamb exports.... the fact that old-ewe mutton in Great Britain is rapidly coming into the unwanted class necessitates a complete readjustment in our marketing.’

Shipping shortages became worse in 1942, and increased the difficulties in clearing meat production, but, for the industry in New Zealand, relief was not far away. In June 1942 the first [United States](#)

¹ Partly because the United Kingdom Government accepted

as a special reserve lower grade meats, some of which had been in store for some time.

² The reasons leading to this decision are discussed more fully by R. J. Hammond in a United Kingdom Official War History entitled *Food*, Vol. III, pp. 230, 231.

³ *Wartime Agriculture in Australia and New Zealand*, p. 260.

⁴ Parliamentary Paper H-29, Report of the **Department of Agriculture**, 1939, p. 4.

forces arrived in New Zealand, and from then onwards the **United States Joint Purchasing Board** ordered increasing quantities of New Zealand meat for forces in the **Pacific**, so reducing supplies available for export.

The situation was also changing in **Britain**. Wood writes: ¹ ‘However, in April 1943 the British Government offered to purchase the entire exportable surplus of meat (as had been done for 1940–41, but not for 1941–42), and it was added further that “if anything could be done to increase this surplus by control of consumption in New Zealand, it would be very welcome to us.” ² The change in the **United Kingdom** attitude seems to have arisen from the American inability to fulfil an offer to supply 458,000 tons of meat under lend-lease.’

Cattle slaughtering, like sheep slaughtering, was always above the pre-war figure, but in both cases exports were reduced.

Exports of frozen and chilled beef, after an initial boost in 1940, fell back to a little below the pre-war level for the next two years, but, in 1943, were much lower and, in 1944, almost disappeared. However, after 1942, disposal of beef presented no serious problems. By far the largest USJPB ³ meat order for American forces was for beef and, in fresh beef alone, they had taken over 60,000 tons by April 1945. Canned and

preserved meat production was around 20,000 tons a year for a couple of years, when shipping was difficult, but after 1943, with American orders to fill and improved shipping to the [United Kingdom](#), much less emphasis was given to this method of disposal.

By the time New Zealand experienced her bad 1943–44 season, the [United Kingdom](#)'s need for food was so urgent that any further drop in New Zealand exports threatened to be disastrous. As we have seen, meat rationing was introduced in New Zealand in March 1944, to free more meat for export.

Most New Zealand meat comes from sheep farms, and the higher level of meat production over the war years was associated with the tendency for sheep farming to gain ground at the expense of dairying. Lamb killings, which had averaged 9·4 million for the three seasons preceding the war, moved up to 10·4 million in 1939–40, and to 11·2 million in 1940–41. They stayed close to eleven million for each of the following two seasons and were around 10·6 million for the last two wartime seasons. On average, lamb had made up about two-thirds of the value of all meat exported, but the proportion was higher after 1941. Except for the

¹ p. 279.

² United Kingdom Ministry of Food to New Zealand High Commissioner, [London](#), 19 April 1943.

³ [United States Joint Purchasing Board](#).

poor year, 1944, lamb exports were well above pre-war levels throughout the war years.

Mutton, normally providing rather less than half as much export meat by weight as lamb, fell still lower in the war years. In 1941 and 1942 export tonnages were about 40 per cent down, and in 1943, which

was the lowest year, exports of mutton were well under half the pre-war tonnages. Thus, although sheep slaughtering was often above the pre-war figure and at no stage fell as much as 10 per cent below, there was a considerable reduction in export tonnages in all years except 1940 and 1945.

Chart 44 shows changes in livestock slaughtering.

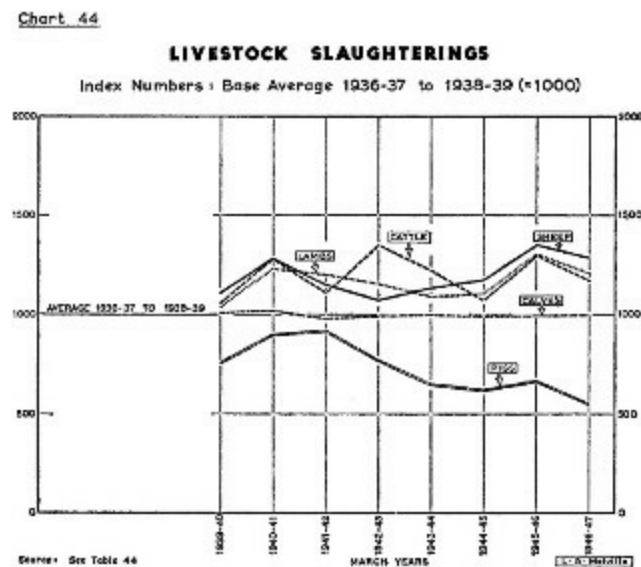


Chart 44

LIVESTOCK SLAUGHTERINGS

Index Numbers: Base Average 1936-37 to 1938-39 (= 1000)

In spite of these variations the meat industry's output was high during the war years. The only sustained decline was in pigmeat production. Labour difficulties on dairy farms were a contributing factor here, and, with better returns for cream and milk, there was less need of this additional time-consuming source of farm income. Changes from butter to cheese and back also brought uncertainty in the pig industry and, from 1941, pig numbers declined.

War in the **Pacific** brought an important new buyer into the market. Contracts to the **United States Joint Purchasing Board** included substantial supplies of pig meat. But, although there was an initial increase in slaughtering, the decline in the industry could not be made good, and it became necessary to restrict local sales and to place a

ceiling on civilian consumption, in order to ensure the supplies for the Americans.

Slaughtering of pigs was below the pre-war figure for all of the war years. There was some slight recovery in 1940-41 and 1941-42, but by 1945 the number of carcasses was less than 70 per cent of 1938-39.

During the war, individual farmers did not receive the full benefit of favourable meat prices paid under the bulk purchase arrangements. Substantial sums were diverted into special meat accounts, which played an important part in the Government's overall stabilisation scheme. ¹ In this respect meat was similar to dairy produce but different from wool, where the high wartime prices went to individual farmers. ² By July 1945 over £9 million had accumulated in the meat industry accounts.

Chart 45 shows changes in New Zealand meat production and exports.

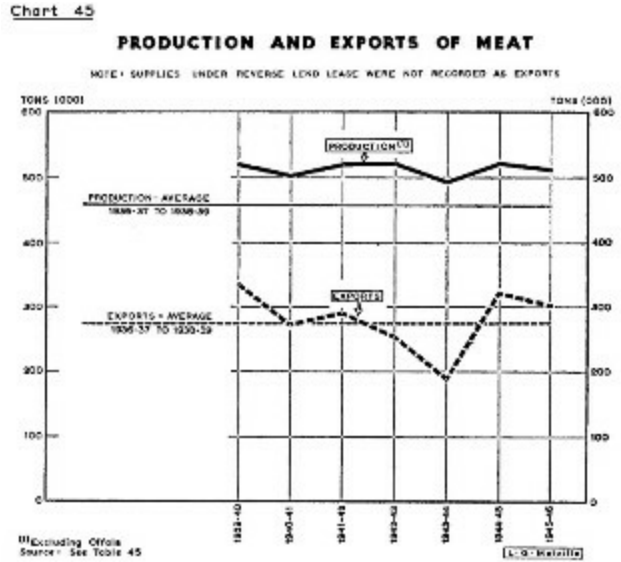


Chart 45
PRODUCTION AND EXPORTS OF MEAT
 NOTE: SUPPLIES UNDER REVERSE LEND LEASE WERE NOT RECORDED AS EXPORTS

¹ See also

Chapter 12.

² Partly in the form of Government stock of bonds or as credits to National Savings accounts.

It will be recalled that supplies for American forces, purchased by the **United States Joint Purchasing Board**, were not recorded as exports, even when sent to forces in other parts of the **Pacific**. The overall disposal of meat during the war years has been estimated as follows:

DISPOSAL OF NEW ZEALAND MEAT PRODUCTION 1939-40 TO
1944-45

	<i>Per Cent</i>
Civilian Consumption in New Zealand	32
New Zealand Armed Forces	2
United States Joint Purchasing Board	9
Exported (mainly to the United Kingdom)	57
	—
	100

All the American purchases occurred in the last three years of war. For these years they were taking as much as a quarter of New Zealand's exportable surplus.

Early in 1944 the **United Kingdom**, faced with drastic shortages of food, protected her supply sources by entering into long-term contracts to purchase New Zealand's exportable surpluses of butter, cheese and meat for the years 1944 to 1948. She pressed New Zealand to maintain and increase food supplies, even to the extent of taking men out of the army and switching her war effort to food production. ¹

¹ Wood, p. 279.

WAR ECONOMY

WOOL PRODUCTION EXCEEDS REQUIREMENTS

Wool Production exceeds Requirements

One of the strangest economic effects of war was the steady accumulation of very large stocks of unwanted wool at a time when, in many other industries, resources were being diverted away from production of all but the most immediately essential requirements. The fact that, on sheep farms, wool could in a sense be regarded as a by-product of meat production was not a complete answer to this conundrum. It was no answer at all in the later years of war, when wool production increased much faster than meat production.

By the end of the war, New Zealand had accumulated stocks of wool amounting to approximately 370 million pounds, equivalent to more than one full year's production of wool; this after there had been considerable pressure for extra production of butter, cheese, and meat for much of the war period. For these food products, farmers were unable to meet the full demand, there being in fact a declining trend in butterfat production.

While the wool stockpile was growing, it was necessary to ration the consumption of meat and butter in New Zealand, quite apart from the very drastic rationing which occurred in the **United Kingdom. It is surprising, therefore, that there was not more re-orientation of farming to food production in preference to wool production, so as to provide more suitably for the **United Kingdom's** needs. As it was, wool production in 1944–45 was 20 per cent higher than the average of the three pre-war seasons. Meat was, by way of comparison, 15 per cent higher, the number of lambs slaughtered being 14 per cent higher, while butterfat production was lower.**

Before examining this apparent misapplication of farming resources, one or two other facts should be taken into consideration. To some

extent it was to be expected that stocks of wool would accumulate over the war period. Enemy countries were no longer taking any portion of British Commonwealth supplies and, even with increasing wartime needs of allied countries, there was likely to be a surplus.

The accumulation of wool stocks was not peculiar to New Zealand. By 1945 stockpiles amounting to nearly 3000 million pounds of wool were held in **South Africa** and **Australia**.

The situation is well summed up in an article published in 1946: ¹

‘The wartime rate of American wool consumption rose to the all time record of around 1,000 million lb. greasy per annum. Consumption in **Australia**, **Argentina** and **India** was also considerably increased. The higher rate of consumption of these countries was, however, far from sufficient to make up for the loss of markets on the European continent, and, from the end of 1941 onward, in **Japan**. Wartime civilian supplies in the **United Kingdom** were reduced to about 35 per cent of the pre-war level, and the overall rate of U.K. wartime consumption was about one quarter below pre-war.

‘On balance, world consumption during the war could absorb only about two-thirds of current supplies from the five main exporting countries; which meant that by the summer of 1945—i.e., after nearly six years of war—the accumulation of stocks in the Dominions and South American countries had reached a total equal to about two years’ supply.’

In New Zealand, as in **Australia**, a favourable wartime market had been assured for all wool produced. Within a fortnight of the outbreak of war the United Kingdom Government had contracted to purchase the entire Australian and New Zealand wool clips for

¹ Gerda Blau in ‘Wool in the World Economy’. Paper read before Royal Statistical Society. *Journal of the Royal Statistical Society*, 1946, p. 220.

the duration of the war and one year thereafter. The original price was fixed at about one-third above average price for the 1938–39 season, but a 15 per cent increase, in May 1942, raised it to over 50 per cent above 1938–39. ¹

When the 15 per cent price increase was given in 1942, wool stocks amounting to a season's clip were already in store. With the 15 per cent increase, wool prices had moved above the pre-war level by more than those of meat or dairy produce; in fact, the **New Zealand Government**, with a stabilisation policy to maintain, found the increase in wool incomes embarrassing, so far as the internal economy was concerned, and diverted part of the money into compulsory loans. Owners of greasy wool were to receive 5 per cent of the appraisal values of their wool in Government bonds or stock. This proposal met with strong opposition from farmers and led to heated exchanges in Parliament. ² In the upshot the farmers, with a right of appeal for payment in cash instead of in Government bonds or stock, received £16 million in cash out of the 1942–43 season's earnings of £16·7 million. ³ In the following season £15·2 million out of £15·8 million was paid in cash, and in the 1944–45 season the full amount was paid in cash.

Compared with the other major farm products, wool price increases were affected comparatively little by stabilisation policies in New Zealand. The Government's comprehensive economic stabilisation plan, which included stabilisation of farm produce payouts, took effect from December 1942, ⁴ but the 15 per cent increase in wool prices was announced in May 1942 and operated from the 1942–43 season and for the rest of the war. Consequently, though wool prices had by 1943 increased more than the prices for dairy produce and meat, wool was the only one of these commodities which was not affected by the new stabilisation scheme for farm payouts. The result was that no portion of wartime wool earnings was siphoned off into stabilisation pool accounts.

Whereas, by 31 July 1945, £9.2 million had accumulated in the Meat Industry Reserve Accounts and £4.7 million in the Dairy

¹ Wool prices were low in 1938–39, but not low enough to invalidate the comparisons which follow.

² See for example, *NZPD*, Vol. 262, p. 71, of 3 March 1943.

³ Parliamentary Paper H-30, Marketing Department (Export Division), 1943, reads, at p. 21: 'Payment to owners of greasy wool was made as to 90 per cent of the appraisal values on appraisal; at the end of the wool year 5 per cent of the appraisal values was paid in Government bonds or stock; the balance of the purchase price was distributed in cash as a percentage (8·82183 per cent) on the appraisal values. The effect of the purchase basis outlined is that woolgrowers received (in cash and bonds) for their total 1942–43 season's greasy wool the overall average price of 13·996d per pound, which represents an increase of 14·008 per cent on the overall average price for their total clip for the 1941–42 season. The total amount paid to owners of greasy wool for the 1942–43 season was £16,723,585, comprising payment in cash of £15,991,827, and payment in Government bonds and stock and to credit of National Savings Accounts £731,758.'

⁴ See

Chapters 11 and

Industry Stabilisation Account, no such account existed for wool. Such portions of the wool earnings as had been paid for in Government bonds or stock, or as credits to National Savings Accounts, had become assets of individual farmers.

Why did the United Kingdom Government pay such a high price for wool, when so much of it was stockpiled, unless it was to prevent it from getting, by devious routes, into enemy hands? Of course, with their less favourable conditions for farming, the price may not have seemed high to them. ¹ It certainly could not have seemed high to the Australians, whose negotiations were primarily responsible for the 15 per cent increase in 1942. However, there were a number of woolgrowers who feared the further onslaught of wool substitutes should the price of wool be pushed too high. Before the war, forward thinking about wool had been clouded by the tendency for users to accept substitutes. In its 1939 report, ² when wool prices were only two-thirds of those reached in May 1942, the New Zealand [Department of Agriculture](#) had written:

‘The future ahead of fine wools is not promising. No doubt prices will rise beyond their present low level, but whether or not the high prices of the past will ever again be realised depends largely on the future of staple fibres, the production of which is increasing enormously. One point is perfectly clear; the total world's supply of wool is not now anything like sufficient for the total requirements of goods which at one time were manufactured entirely from wool. Thus substitutes have become a necessity in world trade. However, the fact that staple fibres by themselves are not suitable for replacing woollen goods in their entirety makes it apparent that the full production of the world's wool is in no danger of oversupplying the market. One does not infer, however, that wool substitutes will not check wool prices, and this check is more likely to be felt in the fine than in the coarse wool trade. The matter is one of particular significance to our mountain-sheep industry, where the returns are almost wholly derived from fine wools and where the returns

per sheep are low.'

A **United Kingdom** war history makes reference to this fear of substitutes and then goes on to say: 'Dominion wools were therefore sold "at a price sufficient to meet their costs including freight" while the price of home-produced wool, which was dearer, had to be subsidised at the dominion price level.'³ It is unlikely that the **United Kingdom** could have known precisely the costs of production of

¹ In fact, the **United Kingdom** producer received a subsidy on account of his higher costs (J. Hurstfield, *History of the Second World War, The Control of Raw Materials*, p. 378).

² Parliamentary Paper H-29, p. 4.

³ Hurstfield, *op. cit.*, p. 378.

New Zealand wool; they were not known in New Zealand. However, this statement does illustrate the conflict of objectives which must have troubled those in the **United Kingdom** who were responsible for fixing a bulk purchase price which would apply to homeproduced as well as Dominion wools.

In view of the wide differences in production costs in the **United Kingdom** and the Dominions, some suitable adjustment in the Dominions would have been appropriate to see that their lower costs did not make the bulk purchase price an incentive to produce a large surplus. New Zealand, after 1942, had sufficient control over costs and prices to have done this, but, due partly to the accident of timing which has been mentioned¹ and partly to the very vocal resistance of sheep farmers, no really adequate action was taken. The New Zealand Government may also have been moved by sympathy for woolgrowers, who had been in difficulties when war broke out.

At the end of the war it was estimated that it would take 12 to 13

years to clear all surplus stocks of wool,² but this assessment was to prove much too pessimistic.

Of the accumulation of wool stocks, Ross writes:³

‘It may be asked if there were attempts to divert production from wool to meat and to rationalise the sheep industry to save manpower. No such attempts were made. The surplus of meat during the years of restrictions on shipping were a deterrent to a switch from wool to meat.’

However, with the favourable price offering, it would no doubt have been difficult to persuade farmers to put less emphasis on wool. Though a change in emphasis between meat and wool would be comparatively slow in the sheep-farming industry, part of the increase in wool production, which helped to add to the huge stockpiles, must have been induced by the favourable price and by the fact that no portion of the price was held back in stabilisation pool accounts, as happened with meat and dairy produce.⁴ This failure by the **New Zealand Government** to realise the economic implications of its farm payout decisions seems inexplicable in time of war, when it was so important to divert as much of the country's farm production as possible to the supply of scarce food.

In the first two years of war, New Zealand farmers do seem to have concentrated on producing meats and dairy produce rather than

¹ p. 211.

² *Farming in New Zealand*, New Zealand **Department of Agriculture** Bulletin No. 279, p. 71.

³ Ross, *Wartime Agriculture in **Australia** and New Zealand*, p. 258.

⁴ As already mentioned, the small portions of wool earnings not paid in cash but as Government bonds or stock, or as credits to National Savings Accounts, became assets of individual

farmers.

wool. Sheep flocks decreased, but the number of breeding ewes was kept up, and the number of lambs born ¹ rose nearly 8 per cent in two years. Moreover, a much higher percentage of lambs was slaughtered, and, as a result, lamb carcass numbers increased by 21 per cent in only two years. Dairy cow numbers were also higher in 1941 than in 1939.

Chart 46 shows changes in emphasis between breeding ewes, other sheep, and dairy cows for those war years where the information is available.

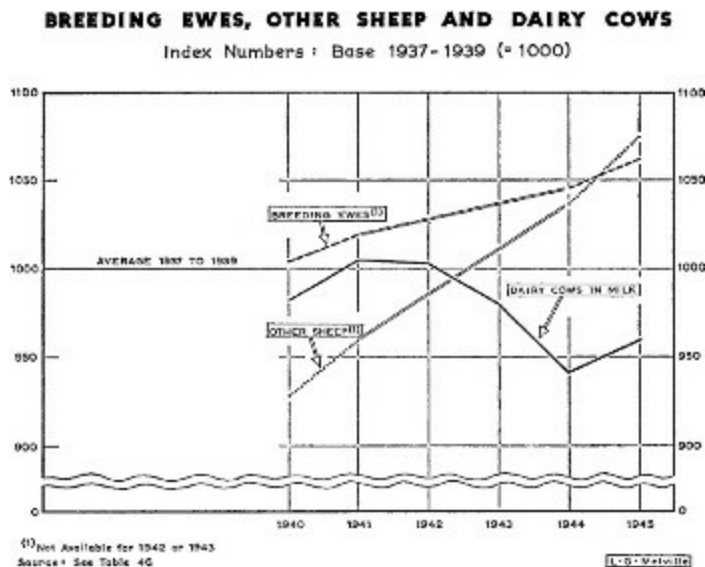


Chart 46
BREEDING EWES, OTHER SHEEP AND DAIRY COWS
Index Numbers: Base 1937-1939 (= 1000)

After 1941, with increasing shipping difficulties for perishable foods and with a 15 per cent wool price increase in May 1942, the whole situation changed. Breeding ewes, though increasing in numbers, declined as a percentage of total flocks, the number of lambs born remained almost stable for three seasons, and the proportion of lambs slaughtered declined progressively. Moreover, dairy cow numbers were now falling each year. The emphasis had shifted from dairy farming to sheep farming, and, in the sheepfarming industry, to building up flocks and growing wool rather than producing and killing a maximum number

of lambs for meat.

¹ Estimated from statistics of lambs tailed.

Chart 47 gives changes in the numbers of lambs tailed and lambs slaughtered, and shows the tendency, after 1940–41, for the annual lambing to be used more for flock increases and less for killing. The two sets of figures are not exactly comparable, because of differences in statistical coverage, but the general impression is correct.

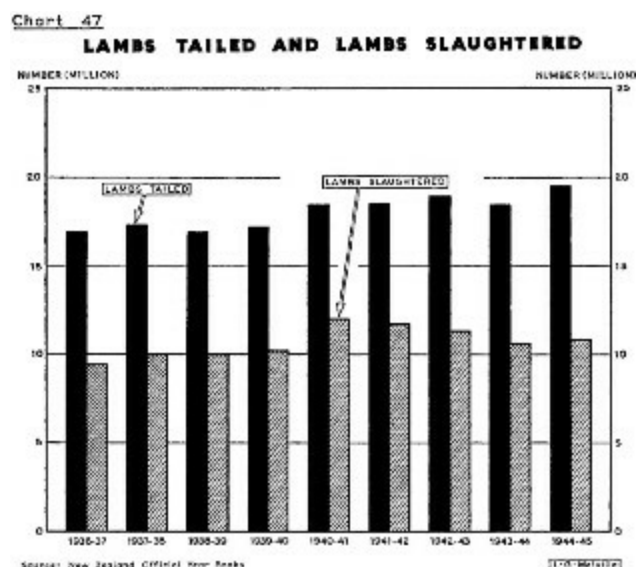


Chart 47
LAMBS TAILED AND LAMBS SLAUGHTERED

New Zealand uses for her own manufactures a surprisingly small percentage of the wool she grows, but the figures received a boost during the war. With defence orders to be filled by local woollen mills, a good deal more wool was used in New Zealand. Before the war, the mills had been buying about seven million pounds of wool a year, but they bought as much as sixteen million pounds in some war years.

The wool-scouring industry staged a recovery, after being in the doldrums in the immediate pre-war period. Its wartime staff averaged 50 per cent higher than the pre-war figure.

The effect of the war was to give a fillip to the wool industry. Before

the war, sheep numbers had started to decline. There had been concern about prices and costs, and about deterioration of land. A Royal Commission on the sheep-farming industry had been set up, and was sitting when war broke out. A new commission was to sit soon after the war, but, by then, the situation had changed considerably. Sheep numbers, after reaching their lowest point in 1940, rose again by nearly 10 per cent before the end of the war. The industry was now much stronger, but it faced the future with an embarrassingly large stockpile of wool.

WAR ECONOMY

FRUIT GROWING DECLINES

Fruit Growing Declines

The fruit-growing industry received a setback during the war years. The United Kingdom Government considered fruit to be of very low priority for shipping space, with the result that very little was exported. Apples and pears to the value of around £600,000 a year had been exported in pre-war years, but in 1940 only about a third of this value left the country, and in the remaining war years exports were always well under 10 per cent of those pre-war. ¹

The Internal Marketing Department took over the major problem of selling this extra fruit in New Zealand. Local consumption had to be more than doubled, if the fruit was not to be wasted. There were intensive advertising campaigns. Case lots were sold direct to households, apples were dehydrated, and free issues were made to school children. Clearances were satisfactory, but intensive effort was involved in marketing the fruit. The situation improved to some extent after 1942. Between June 1942 and April 1945, the **United States Joint Purchasing Board took about one-seventh of New Zealand's fruit production.**

The area in orchards had been falling before the war. It continued to fall in most war years, reaching its lowest point in 1946, at 16 per cent below 1939. The pre-war acreage was not to be reached again until 1955.

¹ See also p. 65.

WAR ECONOMY

A SPECIAL WARTIME UNDERTAKING - LINEN FLAX

A Special Wartime Undertaking - Linen Flax

When Eastern Europe was invaded, an important source of linen flax for the **United Kingdom** was cut off, and the British Ministry of Supply, searching for alternative sources, asked New Zealand to grow some 15,000 acres.

Investigations into the possibility of growing linen flax in New Zealand had been made by the **Department of Scientific and Industrial Research** at **Lincoln** in 1936. Field trials had followed and a small experimental factory had been erected. However, up till 1940 no fibre had been produced commercially. To grow 15,000 acres was a formidable task.

The growing and processing of this linen flax was essentially a Government undertaking. Private farmers who co-operated were initially guaranteed a basic payment per acre sown, as a protection against loss. The Government built seventeen factories to process the crop. All the necessary machinery was manufactured and installed by the New Zealand **Railways Department**.

In 1940–41, 12,000 acres were grown, and, in the following season, 22,000 acres. In earlier years about 30 per cent of the acreage grown proved to be too short for fibre and was harvested for seed only. ¹ In the next two seasons the need for fibre was less urgent, and the area planted fell to about 10,000 acres.

The industry was plagued by cumbersome management arrangements, which impaired its efficiency and raised its costs. Ross writes: ²

‘Control of the industry was vested in an interdepartmental committee on which were represented a surprisingly large number of

State Departments. But while the controlling powers of this Committee appeared adequate, they were not so in fact; all recommendations had to be approved by a Cabinet Minister who was greatly overburdened with far too many administrative details. On many occasions urgent repairs or alterations were found necessary in the factories and the reorganisation of buying and processing methods proved imperative. Yet these changes could not be put in hand until the managers of the factories concerned and the director of the whole industry had received the sympathetic approval of the “controlling” committee and the final approval of the overburdened Minister, who was often absent from the country on matters of national importance. Even the purchase of trucks to carry the flax from farms to factories which needed a flow of it to maintain steady production had to be approved on the ministerial level and this took several months. One factory manager, who hired trucks in order to avoid partially closing his factory, was severely reprimanded for such action.’

In spite of these difficulties, the industry filled an urgent wartime need. It was planned, when the [United Kingdom](#) requirements ended, to grow some 8000 acres of linen flax each year, which would be sufficient to provide fibre and tow to meet New Zealand's domestic requirements. However, in 1945–46, and subsequent years, the area planted was to fall below 5000 acres.

New Zealand's main difficulty was the high cost of processing the flax to obtain fibre. While the United Kingdom Government was prepared to pay a high price for fibre all was well, but, after the war, New Zealand was to have difficulty in competing on a free market.

¹ Parliamentary Paper, H-44, Report of the Department of Industries and Commerce, 1941, p. 20.

² Ross, *Wartime Agriculture in [Australia](#) and New Zealand*, p. 275.

WAR ECONOMY

OTHER WARTIME CHANGES

Other Wartime Changes

An interesting wartime development was the **Services Vegetable Production Scheme** inaugurated in 1942 to meet extra demands for the services, and especially for the **United States Forces in the Pacific**. The scheme produced 12 million pounds of vegetables in 1942–43 and 36 million pounds in each of the following two seasons. Part was grown by the **Department of Agriculture**, and part by commercial growers on a contract basis.

To meet the needs of the American forces in the **Pacific**, dehydration plants were erected, canning factories extended, and packing sheds built to crate the vegetables for export.

The scheme had to face considerable criticism, especially from commercial growers. A good deal of wastage was involved, partly due to uncertainties about the timing and size of military orders and partly to what seemed to New Zealanders to be the over-rigid specifications which the Americans required the produce to meet. However, some waste seems inevitable in the growing and distribution of vegetables.¹ The scheme at its height employed a full-time staff of 1000, together with large numbers of seasonal workers. It met a major wartime need, and must be ranked as a success.

After the entry of **Japan** into the war curtailed supplies of manila and sisal fibre for making ropes, New Zealand flax (*phormium tenax*) was used as a substitute and, by 1943–44, over 5000 tons of fibre a year was being produced.

Medicinal plants were specially grown in New Zealand to meet a **United Kingdom** wartime need.

These are only a few examples of extra crops produced to meet

special war needs.

¹ Wherever possible, mature vegetables which could not be used to fill USJPB orders or for the New Zealand armed forces were dehydrated.

WAR ECONOMY

ACHIEVEMENTS

Achievements

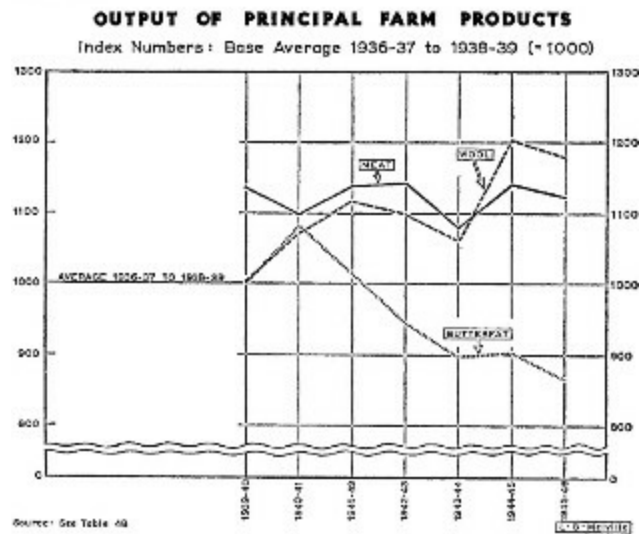
Some of the extra burdens on farming in time of war have been mentioned in this chapter. The fortunes of war brought sharp changes in the intensity of demand for particular products. The supply and shipping situation varied, both for the food items the farmers produced and for the materials and equipment they required.

Frequent modifications of objectives and methods were made to meet these changes.

The greatest achievement was the production of considerably increased quantities of meat from the very first year of war. Butterfat production was disappointing, showing a declining tendency after the 1940–41 season. Output of the other major product, wool, had by 1944–45 increased more than had the output of meat, but most of the increased wool output was surplus to wartime requirements and was stockpiled.

Chart 48 shows changes in output of the three major farm products.

Chart 48

**Chart 48****OUTPUT OF PRINCIPAL FARM PRODUCTS**

Index Numbers: Base Average 1936-37 to 1938-39 (= 1000)

Between 1938-39 and 1944-45, the volume of total farm output increased 13 per cent. This increase was achieved with a declining labour force on farms, and in spite of shortages of fertilisers and other farm requirements. It was made possible by improved methods and a continuation of the trend towards increased mechanisation of farming. In all the circumstances, the wartime increase, equivalent to a rate of 2.1 per cent a year, compares not unfavourably with the long-term average of about 2 1/4 per cent a year.

WAR ECONOMY

CHAPTER 9 – DEFENCE CONSTRUCTION

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WAR ECONOMY

PRE-WAR ACTIVITIES

Pre-war Activities

ALREADY under pressure when war broke out, the building and construction industry was to be very heavily loaded for most of the war years.

Public works had been, not unnaturally, one of the first activities to feel the upthrust of the Labour Government's policy of providing adequate employment opportunities. Development expenditure through the Public Works Department, which, since 1931–32, had been well under £3 million in each year, had increased to £4 million in 1936–37, to £7 million in 1937–38, and to £10·5 million in 1938–39.

At the same time, the Government's state housing scheme was gathering momentum. The first contracts for state houses had been let in March 1937 and, in 1937–38, nearly four hundred houses were completed. Completions rose to 2700 in 1938–39, and to 3400 in 1939–40. Partly through this additional state housing, and partly under the influence of improving economic conditions generally, the number of permits for all new dwellings increased from 4200 in 1936–37 to 7000 in 1937–38, and to 9700 in 1938–39.

With all this extra work to be done, skilled labour for the building and construction industry was becoming short, in spite of the fact that, for the economy as a whole, there was still a pool of some 20,000 men unemployed or in subsidised employment. ¹ Early in 1939, a number of skilled construction workers was recruited in **Australia**, but they were not sufficient to alleviate the shortage of skilled men.

¹ See also **Table 1** in Appendix I.

WAR ECONOMY

MATERIALS AND EQUIPMENT PRE-WAR

Materials and Equipment Pre-war

For public works development, a considerable range of heavy earthmoving equipment had been imported, and was in use on major projects, when war broke out. The building and construction industry was at this time quite well equipped and was working at full stretch with all available skilled labour.

Though the imported content of construction work was quite high,¹ New Zealand was virtually self-supporting for a number of key materials. Before the war the annual use of sawn timber was about 330 million board feet, of which all but some 15 million board feet was grown in New Zealand.² Cement was being used at the rate of some 220,000 tons a year, and of this only about 1000 tons was imported. Building bricks were being provided entirely from local production at the rate of 29 million a year. Roof tiles equivalent to 7 million square feet a year were also entirely locally made.

Local industry provided over a third of the 11 million square feet of plywood used each year, as well as producing nearly 15 million square feet towards the annual requirements of wallboard, but for some other important building materials New Zealand was entirely dependent on imports. Reinforcing-steel, corrugated iron, common window glass, gypsum and linseed oil were major imported items.

Under the influence of reduced overseas funds and restricted imports, overseas supplies of some important building materials had declined. Corrugated iron, which in 1936 and 1937 was imported at the rate of well over 20,000 tons a year, fell to 13,000 tons in 1938 and recovered to only 16,000 tons in 1939.³ It was to be in short supply throughout the war. Reserves of some building materials had been built up in anticipation of defence construction needs, but they were not

really sufficient to make up for the decline in stocks in the hands of private firms as a result of the general reduction in the level of importing. Stocks of corrugated iron held by the Public Works Department, for example, were equivalent

¹ For 1952–53 it has been estimated at 38 per cent and for 1954–55 at 34 per cent.—Inter-Industry Studies of Department of Statistics.

² Imports pre-war were about 30 million board feet a year and exports 15 million. The equivalent of about a further 12 million board feet was imported as sleepers and logs.

³ Later the Minister of Finance, Mr Nash, denied that imports of corrugated iron had been restricted for balance of payments reasons.—*NZPD*, Vol. 260, p. 47, 7 August 1941. The attempt to encourage the wider use of tiled roofs in New Zealand, and, later, the use of corrugated iron for air-raid precautions in the [United Kingdom](#), also slowed up importing.

to five weeks' supply only, and would be quite inadequate to cope with reduced private stocks and the impending drastic fall in imports of this most commonly used material for New Zealand roofs. ¹

Imports of flat iron were below normal in 1939, and imports of mild steel of various types were considerably reduced.

Fortunately, stocks of timber were high when war broke out, but the reduced importing of some types of steel and iron, needed for building and construction work, was soon to give rise to shortages and to restrictions on their use for non-essential work.

Chart 49 shows, for some important building materials, the relative importance of imports and local production before the war.

Chart 49

SUPPLIES OF SELECTED BUILDING MATERIALS
 AVERAGE ANNUAL SUPPLIES PRE-WAR⁽¹⁾ ACCORDING TO SOURCE

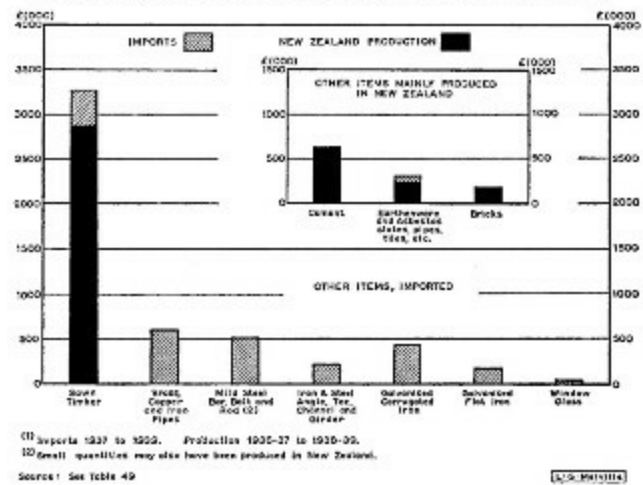


Chart 49
SUPPLIES OF SELECTED BUILDING MATERIALS
 AVERAGE ANNUAL SUPPLIES PRE-WAR

¹ See also pp. 112 and 248.

WAR ECONOMY

PRE-WAR DEFENCE CONSTRUCTION

Pre-war Defence Construction

Some defence construction work had been commenced before the war, but it was hardly sufficient to make up for the arrears of defence works caused by retrenchment in the depression of the early 1930s.

Aerodromes had received most attention. As early as September 1930, a scheme had been advanced for the establishment of a chain of landing grounds. The Public Works Department was to undertake the work, using unemployed labour wherever possible. Apart from **Hobsonville**, the earliest military aerodromes were at **Wigram**, where work commenced in 1934, and at **Ohakea**, which was selected as a site in 1937. By 1938, **Wigram** was being developed as a flying training school and **Hobsonville** as an aircraft base and repair depot.

Construction had commenced on new operational stations at **Ohakea** and **Whenuapai**. By 1939 expansion of **RNZAF** stations was recognised as urgent, but in September the only two Air Force stations which were occupied and functioning were the Flying Training School at **Wigram** and the depot at **Hobsonville**. Other stations at **Ohakea**, **Whenuapai**, **Blenheim**, and **Taieri** had reached varying stages of completion. ¹

For other branches of the armed forces, still less had been done. At the time of the **Munich** crisis, in September 1938, plans were completed for three mobilisation bases, each to accommodate 8000 men, but it was nearly a year before very much action was taken. By the end of July 1939, a schedule was available showing the approximate quantities of materials needed for emergency mobilisation buildings. ² The schedule read:

Corrugated galvanised iron	2,682 tons
Sarking	574,000 super feet
Weatherboarding	5,479,000 super feet

Scantling	10,367,500 super feet
T and G Flooring	3,227,800 super feet
Connector rings	68,700

In addition it was estimated that 3,000,000 super feet of timber would be needed for the initial phase, for canvas camps. It has already been noted that stocks of galvanised iron held by the Public Works Department at the outbreak of war amounted to only 2000 tons, compared with 2682 tons scheduled as needed for emergency mobilisation buildings alone. ³

Some idea of Government thinking on defence works immediately before the war can be gleaned from the Budget statement of 1 August 1939, which included the following:

‘In the case of the Naval Forces, action lies chiefly along the lines of completing the Naval Dockyard, building and stocking a naval armaments depot and storehouses, building and equipping

¹ *New Zealand Official Yearbook*, 1946, p. 181.

² *Official War History of the Public Works Department (cyclostyled)*, Vol. I, p. 96.

³ See also p. 113.

workshops, and the provision of adequate training facilities. In regard to the last named, three small sea-going training vessels are being built.

‘On land the fortifications of the defended ports are being modernized and strengthened. The establishment of the Territorial Army has been raised to 16,000, and recruiting for this Force, and also for the National Reserve, is proceeding satisfactorily. Training facilities in all directions are being increased correspondingly and every effort is being made to build up stocks of equipment, armament, ammunition, and

stores necessary for training and for mobilization.... The Air Force as a fighting force hardly existed when the Government took office in 1935. The programme announced in 1937 has recently been expanded and great strides have been made in building up an efficient force....

‘As a result of the visit of the United Kingdom Air Mission, arrangements have been made for the establishment of an aircraft factory at **Wellington**, and an order is to be placed with the **De Havilland Aircraft Company** Ltd., for the manufacture of one hundred Tiger Moth fighting planes at a cost of £155,000....

‘During last year approval has been given to the establishment of a Flying Training School at **Blenheim** capable of an output of 140 pilots a year, and to an increase in size of the Flying Training School, **Wigram**, to ensure a similar output. Good progress has been made with the development of the station at **Ohakea**, with the provision of additional accommodation at **Wigram** and **Hobsonville** and with the establishment of the new station at **Blenheim**. The construction of the operational station at **Whenuapai** is proceeding satisfactorily, and it is anticipated that the expansion programme will be complete by December 1940....

‘Capital expenditure involved in the expanded programmes for the three Services will exceed £5,000,000, spread over the next two years. Maintenance costs will be in the vicinity of £3,000,000 per annum. For all purposes the expenditure during this financial year will be about £5,400,000.’¹

¹ NZPD, Vol. 254, p. 885.

WAR ECONOMY

WAR AND ACCELERATED CONSTRUCTION OF DEFENCE BUILDINGS

War and Accelerated Construction of Defence Buildings

At the outbreak of war the Public Works Department had in hand the construction of seventy defence buildings of a total floor area of nearly 800,000 square feet. All except two of these buildings were on **RNZAF** stations. Such was the impact of war that less than two weeks later, on 13 September 1939, the Department had under construction 650 defence buildings covering a total floor area of over one and a half million square feet. ¹

Construction of mobilisation camps for the training of troops was included in this early wartime programme. The construction of **Burnham Military Camp** for training troops in the **South Island**, and **Papakura Military Camp** for training troops in the **Auckland** district began almost immediately war was declared and both were completed within two months. Of the **Papakura Camp** the Public Works Department wrote: ²

‘As Army had requested that both battalion blocks be ready for occupation within eight weeks from 18 September, the entire resources of the Department and of the contractors were organised with a view to achieving this objective. All available plant and machinery were diverted to **Papakura**, and graders, rollers, bulldozers, mechanical shovels, draglines, trench diggers, mechanical loaders, compressors, and similar equipment were soon in operation. Despite adverse weather conditions in the initial stages, the work progressed uninterruptedly for 12 hours a day, six days weekly. The number of men employed reached 1,200 during October.

‘On 6 November 1939 the Permanent Head was able to report to the Minister of Public Works that Nos. 1 and 2 battalion areas were completed and ready for occupation; they were, indeed, to be occupied by troops on the following day.’

It was to be expected that there would be a diversion of resources from housing and other work to defence construction. Within a few months, the state housing construction programme started to slow down.

¹ Official War History of the Public Works Department, Vol. I, p. 97.

² Ibid., Vol. II, p. 382.

WAR ECONOMY

EARLY WARTIME CONTROLS

Early Wartime Controls

Customarily, building permits are issued in New Zealand by local authorities. As a wartime expedient, a Building Controller was appointed in September 1939 to control their issue and to make sure that sufficient priority was given to works directly associated with the war effort. He could also regulate the supply and use of building materials. By March 1941 an order of priority had emerged, with defence works first, followed by hospital construction, then buildings for processing or storage of farm produce. New factories came next, then housing.

In the early stages of the war, the Building Controller did not make full use of the powers available to him, but tended to be concerned mainly with maintaining the supply of materials, and channelling them to the most urgent work. He was reluctant to restrict unnecessary work, 'provided labour and materials are available and not required for more essential purposes'. ¹

Defence construction work did not move above £4 million a year in the first two years of war, but, nevertheless, shortages of building steel and corrugated iron soon became restrictive in the building industry and gave rise to a number of wartime controls over private building.

In January 1941, notice was given that building permits would not be issued by a local authority without the consent of the Building Controller in cases where more than half a ton of structural steel, including reinforcing steel, was required or where the estimated cost exceeded £2000. ² The following month the Building Controller's consent was required also for the erection of any dwelling-house involving the use of corrugated iron. ³

Difficulties in getting adequate supplies of iron and steel are

discussed in

Chapter 6. By 1940, imports of corrugated iron had fallen to less than half of normal, and were to decline much further. By 1941 restrictions on its use were very severe.

In a question in the House of Representatives in August 1941, a member indicated that ‘applications for even small quantities are being refused, such as six sheets, twelve sheets, and forty-four sheets respectively, required for roofing milkstands, lorry sheds, cow sheds etc., and that applicants are being told to use substitute roofing materials in place of iron; and also that no applications are now being considered for any other purposes than for repairs to the roofs of existing dwellings.’⁴

In the course of his reply, the Minister of Finance, Mr Nash, said: ‘There is an acute shortage, and the position would have been a great deal worse had not the Government taken action by endeavouring to obtain additional supplies from **Australia**, and by the institution of a control system in New Zealand to ensure that iron is not used for unnecessary purposes, and where substitutes can be used; and by the institution of price control.’

Defence construction expenditure was between £3 million and £4 million a year in 1939–40 and 1940–41,⁵ but, in these years, other building work was almost at pre-war levels, and pressure on the industry was mounting. In 1941–42 defence construction work was to rise to over £5 million, with some setback to private building, but there were much greater difficulties to come.

Considerable strains had started to show up in the building industry by late 1941, and better co-ordination would be necessary to get the best possible use of resources. Under pressure of defence work, the contracting system did not show up in its best light. Some contractors were accepting more work than they were capable of completing, whilst others, who had sufficient men and equipment, were not sharing in the work because their tenders were not low enough. Private building was still using a large share of available resources and was at times being given priority by builders over defence work.

¹ **Proceedings of the General Working Committee of the Economic Stabilisation Conference, September 1940, Part 2, p. 547.**

² **The Building Construction Control Order 1940, Gazetted 9 January 1941.**

³ **The Building Construction Control Notice No. 2, 1941, Gazetted 11 February 1941.**

⁴ **Mr C. A. Wilkinson ([Egmont](#)): NZPD, Vol. 260, p. 47.**

⁵ **March years.**

WAR ECONOMY

THE COMMISSIONER OF DEFENCE CONSTRUCTION

The Commissioner of Defence Construction

The entry of **Japan** into the war in December 1941, and her successes in pushing the 'Co-prosperity Sphere' southwards into the **Pacific**, quickly raised the priority of defence construction work. Firm control was now necessary to ensure that nothing interfered with the progress of essential work. Firm control was indeed taken. Mr James Fletcher was appointed Commissioner of Defence Construction, with sweeping powers; so sweeping that they are worth quoting in full. On 11 March 1942 Mr Fraser, in Cabinet, approved the following: ¹

- '1. Mr James Fletcher to hold office as Commissioner of Defence Construction during the pleasure of the Prime Minister, and to act in accordance with all directions, general or special, given to him by the Prime Minister.**
- '2. The general functions of the Commissioner shall be to organise and promote the undertaking of all defence works according to the importance thereof in the interests of defence, and for that purpose to determine the order of the urgency thereof, and to ensure the supply of materials, plant, and labour for the prosecution of defence works according to the order of urgency laid down from time to time by the Commissioner.**
- '3. For the purpose of exercising his functions, the Commissioner may give such directions as he thinks fit to any officers of the **Public Service** in relation to the exercise of any powers possessed by them, whether under any Act or regulations or otherwise, including any powers that may be delegated to them by any Minister or other Authority.**

¹ Official War History of the Public Works Department, Vol. I, p. 165.

- '4. In particular, the Commissioner may direct—
(That any constructional work (whether commenced by the Crown,**

a) any local authority or public body, or any other person) shall be stopped:

(That contracts for any defence works shall be let on such basis

b) and on such terms as he thinks fit:

(That such labour and materials and plant as he thinks fit shall be

c) made available for any defence works at such places and times as he thinks fit.

‘5. Subject only to any special direction to the contrary by the Prime Minister, it shall be the duty of all officers to carry out all such directions of the Commissioner, and their respective Ministers (where necessary) will authorise and direct them to do so, notwithstanding any previous decision or instruction to the contrary given by the Government or any other authority.’

In spite of these very extensive powers given to the Commissioner by name, he was originally appointed as Chief Executive Officer to the **Defence Construction Council, whose membership was the Prime Minister, as the Chairman, the Commissioner, as Vice-Chairman, the Minister of Defence, the Minister of Public Works, the Engineer-in-Chief of the Public Works Department, the Director of Housing Construction, and a representative of Treasury. However, after fourteen meetings, which seem to have been concerned mainly with rubber-stamping the Commissioner's decisions, the Council ceased to function in September 1942. In practice, Mr Fletcher kept only a small staff and maintained control of the industry by direct contact with the Departments or authorities concerned.**

Thus was this most dynamic personality placed in the position where he could have the greatest effect on the war effort. Inevitably there were clashes with those normally in control of sections of the building and construction industry. On 28 September 1942, the Minister of Works wrote to the Prime Minister complaining that he, his Department and the Committee had been cut out of co-operation with the war effort, and that the Commissioner had exceeded his powers by negotiating contracts without reference to the Minister of Public Works, or the Defence Construction Committee. ¹

In a rather characteristic reply the Commissioner pointed out that

he was in daily communication with the Government Architect, Mr Patterson of the Public Works Department, and that the need for accommodation at times was so great that he had 'to commence construction while the Services were endeavouring to clarify the whole situation'.²

¹ War History narrative No. 8, Commissioner of Defence Construction, p. 56.

² Ibid., p. 57.

Decisive action and straight talk. Meantime much was being achieved. In 1942 there was a dramatic diversion of the construction industry from civilian to defence work. In the year ended March 1943, defence construction work increased from £5·3 million to £17·6 million, and private building work fell back from £10·5 million to £3·5 million. This year saw the maximum threat of Japanese invasion and the drive to catch up with New Zealand's defensive works, as well as to build camps and hospitals for American forces who had started to arrive in June 1942.

It is perhaps significant that it was the Works Department, in its 1946 report, eighteen months after Mr Fletcher had returned to private enterprise, which said of his measures:

'Points of criticism arose here and there as a result of these sweeping changes, but there was no doubt that the prompt and powerful measures taken were largely responsible for the dramatic speed with which New Zealand was provided with camps, air raid shelters, gun positions, and all the other buildings and construction works required by a nation preparing to defend itself against invasion.'¹

¹ Parliamentary Paper D-3, 1946. Report of the Commissioner of Works, p. 8.

WAR ECONOMY

THE FIFTY-FOUR HOUR WEEK

The Fifty-four Hour Week

One of Mr Fletcher's first moves as Commissioner of Defence Construction was to attempt to cope with manpower difficulties in the construction industry by requiring a fifty-four hour working week. The necessary Order was made in March 1942. ²

In the same month, defence works had been covered by a declaration of essentiality, making it possible to direct workers into the industry and to divert men from low priority to high priority work.

In the event, the fifty-four hour week proved to be too ambitious. In the winter there were not enough daylight hours to work more than an eight and three-quarter hour day, and the long working week tended to reduce the effectiveness of labour. Men were away from home from 10 ½ to 11 hours a day. In June 1942, hours of work were reduced to 48.

² The Defence Works Labour Legislation Suspension Order 1942 fixed normal hours of work as 54.

WAR ECONOMY

DEFENCE CONSTRUCTION EXPENDITURE

Defence Construction Expenditure

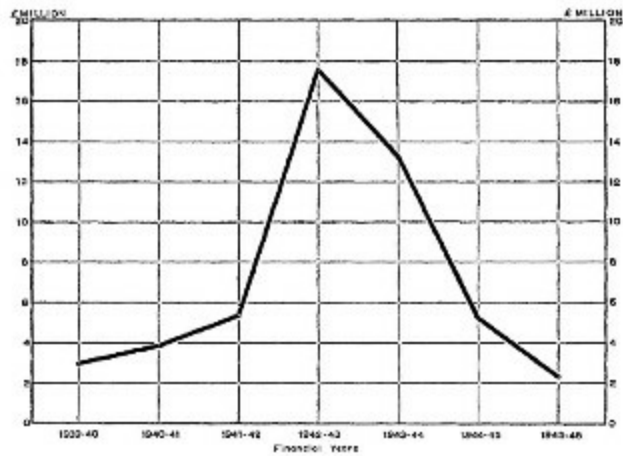
From 1939–40 to 1945–46, over £50 million of defence construction work was controlled by the Public Works Department and the **Housing Construction Department**.³

The need for new army camps gave rise to one of the largest demands for defence construction work. In all, over £16 million of construction work of various types was done for the Army. Naval construction work amounted to £3 ½ million, and Air Force work, including, in particular, the acceleration of aerodrome construction, amounted to nearly £16 million. Work on behalf of the **United States Forces**, predominantly camps and military hospitals, was valued at over £7 million. Civil defence work, including air-raid protection works, munition factories, and the like, approached £8 million in value.

Expenditure from year to year is shown in Chart 50. From between £3 million and £4 million a year in the first two war years, it rose to over £5 million in 1941–42; then, under the influence of the Japanese invasion threat, and boosted by the needs of **United States** forces in New Zealand, it rocketed to over £17 million in 1942–43.

DEFENCE CONSTRUCTION EXPENDITURE

BY PUBLIC WORKS AND HOUSING CONSTRUCTION DEPARTMENTS



Source: See Table 50

L. G. H. H. H. H.

Chart 50**DEFENCE CONSTRUCTION EXPENDITURE**

BY PUBLIC WORKS AND HOUSING CONSTRUCTION DEPARTMENTS

³ Housing Construction was a branch of the State Advances Corporation and later a division of the Public Works Department, but it was commonly known as a Department.

WAR ECONOMY

DETAILS OF PUBLIC WORKS EXPENDITURE

Details of Public Works Expenditure

Public Works expenditure is available in detail for each year. The tables, though large, are worth reproducing for the picture they give of the onset of the various types of construction work. ¹ For example, the item 'Machine Gun Posts' appeared with a small expenditure in 1941–42, and a substantial expenditure in 1942–43. Japan had entered the war in December 1941. In 1942–43, there

¹ See pp. 233– 7. Adapted from tables on pp. 76–80, Vol. I, Official War History of the Public Works Department.

was substantial expenditure for the United States Forces which increased into 1943–44.

The Australian port of Darwin was bombed by the Japanese in February 1942; and in 1942–43 there appeared in the New Zealand accounts the first large expenditure on anti-aircraft defences. Perhaps an even more significant indicator of the feelings of the time, the first expenditure on underground operational centres was recorded in the same year.

The year 1942–43 saw also the first large expenditures on coastal defences, harbour defences and controlled mine bases; and again, a significant acknowledgment that shore-based defences might prove inadequate, there was considerable expenditure from 1942–43 on 'Military Roding (including tank obstacles and road-blocks)'.

Some Government activities to assist wartime industries are also revealed. For example, from 1940–41 to 1942–43, there was substantial expenditure on linen flax factories and, in 1943–44 and 1944–45, on

dehydration factories. ¹

The item 'Prisoner of War Camps' appeared for the first time in 1942–43, followed by larger expenditure in 1943–44. The first 450 prisoners of war arrived in September 1942 and were held in **Featherston**, on the site of a World War I military camp. This camp ultimately held about 800 Japanese prisoners. They were to be returned to **Japan** in January 1946.

For the first three years of war, until the 1942–43 burst of defence construction activity in preparation for a possible Japanese invasion and to accommodate **United States** forces, the largest construction expenditures tended to be those on behalf of the **RNZAF**. This work involved mainly the construction of new airfields and stations. The following brief summary appeared in the 1946 *Year-book*; ²

'In September 1939, the only two Air Force stations which were occupied and functioning as such were the Flying Training School at **Wigram** and the depot at **Hobsonville**. Other stations at **Ohakea**, **Whenuapai**, **Blenheim**, and **Taiari** had reached varying stages of completion. The building programme necessary to meet

¹ See

Chapter 8 for discussion of the linen flax industry and of services vegetable production. Some services vegetable orders required dehydration, which was also valuable in avoiding waste, when production and orders were not synchronised.

² *New Zealand Official Yearbook*, p. 181. The same page gives a complete list of stations in New Zealand and the **Pacific** area occupied at one time or another during the war by the **RNZAF**.

New Zealand Stations: **Anderson Park, Ashburton, Gisborne, Harewood, Kaikohe, Kerikeri, Linton, Mangere, Nelson, Norwood, Omaka, Palmerston North, Rongotai, Remuera, Swanson, Tauranga, Te Pirita, Waipapakauri, Whenuapai, Woodbourne, Ardmore, Delta, Hamilton, Hobsonville, Kaitaia, Levin, Mangaroa, Masterton, New Plymouth, Ohakea, Onerahi, Rukuhia, Rotorua, Seagrove, Taieri, Te Awamutu, Te Rapa, Waharoa, and Wigram.**

Pacific Stations: **Bougainville, New Georgia, Guadalcanal, Halavo Bay, Green Island, Emirau, Los Negros, Jacquinot Bay, Espiritu Santo, New Caledonia, Fiji (Suva), Lauthala Bay, Nandi, Nausori, Tonga, Norfolk Island, Kaneohe, and Funafuti.**

the requirements of the War Training Organization was comenced, and soon afterwards had to be revised to cope with the needs of the Empire Air Training Scheme.

‘By March, 1941, the construction to the requirements then visualised had been completed, or was in hand, at the following fourteen stations, at a total approximate cost of £4,448,000. **New Plymouth, Whenuapai, Hobsonville, Ohakea, Levin, Woodbourne, Harewood, Wigram, Taieri, Omaka, Tauranga, Nelson, Waipapakauri, and Rongotai.**

‘The expansion necessary to meet the Japanese threat, and the need to accommodate the large numbers of **United States** air units which it was proposed to base in this country, necessitated a further drastic increase in the building programme in 1942. By March, 1943, some 37 **RNZAF** stations were in operation in New Zealand, the total construction

costs being £11,470,000.

‘The improvement in the **Pacific** war situation from the end of 1943 onwards resulted in a progressive diminution in the number of stations.’

Nearly all the construction work for the **United States** forces occurred in the two years 1942–43 and 1943–44. Some exceptionally fast work was done, including the initial camp at McKay's Crossing, **Paekakariki**, and the hospital buildings in **Auckland**.¹ A Public Works Department report says:² ‘In the **Wellington** district the most noteworthy achievement was the erection within less than six weeks of camps in the **Paekakariki** area for over 20,000 US Marines. Other camps were built in and around the city, in the Hutt Valley, and at **Masterton**. Huge blocks of stores sprang up along the **Wellington** waterfront, in the Hutt Valley, and at **Paekakariki**.’

The same report says:

‘... in the **Auckland** district, camp and barracks accommodation was built for 29,510 personnel, containing 4,421 buildings covering a total floor area of 1,113,316 square feet. Three hospitals provided beds for 4,500 patients, in 251 buildings of an aggregate floor area of 1,005,000 square feet. New blocks of stores in and around **Auckland** were made up of 174 buildings of a total area of 1,733,467 square feet, of which 1,624,760 square feet was storage space.

‘Corresponding figures for the **Wellington** district were: camps and barracks for 26,542 personnel in 2,505,925 square feet of tents, buildings and huts; hospital beds for 2,340 patients in 59 buildings and 115 huts covering an area of 151,341 square feet; and 752,480 square feet of new storage space.’

All these figures are exclusive of a very considerable area of existing accommodation made available to the Americans.

¹ See also p. 241.



ARRIVAL OF UNITED STATES FORCES

Wellington, June 1942. For the next two years there were usually about 25,000 United States servicemen in camps in New Zealand

ARRIVAL OF UNITED STATES FORCES

Wellington, June 1942. For the next two years there were usually about 25,000 United States servicemen in camps in New Zealand



SUSTENANCE FOR A UNITED STATES MARINE

Making friends with a City Milk Department horse on the Wellington wharves

SUSTENANCE FOR A UNITED STATES MARINE

Making friends with a City Milk Department horse on the Wellington wharves



MARINE CORPS CAMP

McKay's Crossing, near Paekakariki. Camps and other buildings valued at £6 million were constructed by New Zealanders for use by the United States Forces

MARINE CORPS CAMP

McKay's Crossing, near Paekakariki. Camps and other buildings valued at £6 million were constructed by New Zealanders for use by the United States Forces



SERVICES FOR UNITED STATES CAMPS

Installing power at the New Zealand built camp for United States Marines at Anderson Park, Wellington

SERVICES FOR UNITED STATES CAMPS

Installing power at the New Zealand built camp for United States Marines at Anderson Park, Wellington



FOOD FOR UNITED STATES FORCES

A United States Marine taking delivery of bacon. Foodstuffs valued at over £41 million were supplied to American forces in New Zealand and the Pacific

FOOD FOR UNITED STATES FORCES

A United States Marine taking delivery of bacon. Foodstuffs valued at over £41 million were supplied to American forces in New Zealand and the Pacific



WAREHOUSES BUILT FOR THE U.S.J.P.E.

These buildings at Gracefield, Hutt Valley, were later used as War Assets Realisation Board stores

WAREHOUSES BUILT FOR THE U.S.J.P.E.

These buildings at Gracefield, Hutt Valley, were later used as War Assets Realisation Board stores



CONSTRUCTION UNDER REVERSE LEND-LEASE
 Constructing a shipyard at Auckland for the United States Navy

CONSTRUCTION UNDER REVERSE LEND-LEASE

Constructing a shipyard at [Auckland](#) for the United States Navy



BRIDES FOR THE UNITED STATES
 1400 New Zealand girls married United States servicemen

BRIDES FOR THE UNITED STATES

1400 New Zealand girls married [United States](#) servicemen

**GROSS EXPENDITURE ON DEFENCE WORKS BY PUBLIC WORKS DEPARTMENT
 ARMY WORKS**

£(000)

	1939-	1940-	1941-	1942-	1943-	1944-	1945-	Total
	40	41	42	43	44	45	46	
1. Military Camps	1,095	1,209	517	2,723	1,244	487	274	7,550
2. Coastal Fortifications and Gun Emplacements	142	135	343	794	682	205	102	2,402
3. Anti-Aircraft Defences	6	20	6	356	160	18	4	569

4. Magazines	9	15	7	278	529	70	30	939
5. Guard Stations	4	4	23	43	16	2	1	93
6. Underground Operational Centres	—	—	—	62	36	2	—	100
7. Office, Storage, and Workshops, etc. Accommodation (excluding capital cost of new stores)	12	13	30	79	88	35	19	276
8. Bulk Fuel Stores (including splinter proofing and camouflage)	—	—	36	19	5	10	—	70
9. Internment Camps	1	2	1	107	11	8	—	129
10. Prisoner of War Camps	—	—	—	21	128	56	23	228
11. Camouflage	—	—	24	80	12	3	—	118
12. Military Roding (including tank obstacles and road blocks)	—	—	35	358	386	224	128	1,131
13. Machine Gun Posts	—	—	1	37	6	3	—	47
14. Radar Stations	—	1	12	18	10	3	—	45
15. Portable Huts, Warehouses, etc	—	—	105	1,092	82	9	1	1,290
16. Hospitals and Convalescent Depots	—	60	246	393	512	466	258	1,936
17. Miscellaneous	2	21	5	12	138	33	1	212
TOTALS	1,271	1,480	1,390	6,471	4,046	1,634	842	17,135

NAVY WORKS

£(000)

	1939-	1940-	1941-	1942-	1943-	1944-	1945-	Total
	40	41	42	43	44	45	46	
1. Naval Bases	68	32	125	257	317	354	255	1,408
2. Naval Posts	—	—	16	74	83	20	4	197

3. Coastal Defences	–	1	12	64	4	3	–	83
4. Harbour Defences	–	–	–	82	37	2	3	124
5. Wireless Telegraphy Stations	–	–	–	14	3	7	4	27
6. Mine and Armament Depots	–	–	3	59	86	18	5	170
7. Controlled Mine Bases	–	–	–	141	54	–	–	194
8. Signal Stations	–	–	2	16	2	–	–	21
9. Bulk Fuel Stores (including splinter proofing and camouflage)	–	15	54	39	134	163	127	531
10. Barracks Hostels, etc.	7	11	59	41	24	13	8	163
11. Magazines	–	5	2	99	36	3	4	149
12. Offices, Storage, and Workshops, etc. Accommodation	–	–	–	19	106	86	169	380
13. Miscellaneous	–	–	–	2	8	–	–	11
TOTALS	75	65	274	906	893	668	578	3,458

RNZAF WORKS
(New Zealand and Overseas)
£(000)

	1939–40	1940–41	1941–42	1942–43	1943–44	1944–45	1945–46	Total
1. Airfields	339	340	944	2,792	649	235	188	5,486
2. RNZAF Stations	996	1,194	761	1,193	996	398	162	5,701
3. RNZAF Stores Depots	31	119	65	168	273	86	16	758
4. Miscellaneous RNZAF Establishments	1	11	46	65	98	43	33	297
5. Underground Operational Centres	–	–	–	30	25	14	1	70
6. Bulk Fuel Stores (including splinter	8	7	45	238	88	12	3	401

proofing and camouflage)								
7. Wireless Telegraphy Stations	10	3	6	5	9	4	2	37
8. Radar (Ground) Stations	1	-	17	116	137	22	-	294
9. Aeradio Stations	42	52	46	59	36	10	12	258
10. Seaplane Alighting Areas and Bases	41	10	66	216	17	2	1	353
11. Camouflage, Dummy Aircraft, etc.	-	-	30	108	7	-	-	145
12. Expeditions (Cape, Pacific, various)	4	18	37	59	56	43	37	255
13. Surveys and Investigations	8	6	18	21	10	5	4	73
14. Miscellaneous	8	30	100	57	30	17	7	249
TOTALS	1,488	1,791	2,181	5,128	2,433	890	466	14,377

CONSTRUCTION WORK FOR THE UNITED STATES FORCES
£(000)

	1939-40	1940-41	1941-42	1942-43	1943-44	1944-45	1945-46	Total
1. Camps	-	-	-	1,326	935	152	49	2,462
2. Hospitals and Convalescent Depots	-	-	40 ³	467	1,013	304	44	1,867
3. Ammunition Stores and Magazines	-	-	-	177	72	8	-	257
4. Office, Storage and Workshops, etc.	-	-	-	186	502	235	58	981
Accommodation (excluding capital cost of new stores)								
5. Ship Repairs¹	-	-	-	13	19	3	-	34
6. Huts and Buildings for the Pacific²	-	-	-	29	37	-	-	66

7. Miscellaneous	-	-	-	117	39	14	1	172
	—	—	—	—	—	—	—	—
TOTALS	-	-	40	2,314	2,617	715	151	5,838
	—	—	—	—	—	—	—	—

³ Work then under construction for New Zealand Forces, but made available to **United States Forces** when completed.

¹ Portion only. See also pp. 168– 73.

² Excludes work done by **Housing Construction Department**.

CIVIL DEFENCES AND GENERAL

£(000)

1939– 1940– 1941– 1942– 1943– 1944– 1945– Total
40 41 42 43 44 45 46

1. Air Raid Shelters (erection and demolition)	-	-	7	576	108	72	30	794
2. Splinter proofing and camouflaging of Bulk Fuel Tanks	-	-	102	253	14	-	3	372
3. Fire-fighting Equipment	-	-	43	155	125	6	-	329
4. Black-out of Government Buildings	-	-	7	25	2	2	-	36
5. Accommodation for Cheese Workers	-	10	70	44	5	11	1	141
6. Workers' Camps (Defence, Industrial, Mines, Services Vegetable Production, etc.)	-	4	7	56	110	50	9	236
7. New Storage Accommodation	-	19	66	490	766	332	80	1,754

8. Refugee Camps	-	-	-	13	9	130	35	186
9. Dehydration Factories	-	-	-	-	135	276	37	449
10. Linen Flax Factories	1	197	298	171	23	3	-	692
11. Munition Factories	-	21	22	166	59	17	-	285
12. Reserve Stocks	121	186	769	17	28	17	-	1,138
13. Miscellaneous	-	-	22	16	168	27	15	248
	_____	_____	_____	_____	_____	_____	_____	_____
TOTALS	122	437	1,412	1,980	1,554	943	211	6,658
	_____	_____	_____	_____	_____	_____	_____	_____
GRAND TOTAL, all Defence Works by Public Works Department	2,957	3,773	5,297	16,799	11,543	4,850	2,248	47,466
	_____	_____	_____	_____	_____	_____	_____	_____

**Due to 'rounding', totals may disagree with the totals of individual items
as shown.**

WAR ECONOMY

DEFENCE WORKS BY THE HOUSING CONSTRUCTION DEPARTMENT

Defence Works by the Housing Construction Department

Rather less detail is available for work arranged by the **Housing Construction Department**. No defence construction expenditure was incurred by the Department until 1939–40.

<i>Financial Year</i>	<i>Expenditure by Housing Construction Department on Defence Works £(000)</i>
1939–40	27
1940–41	124
1941–42	29
1942–43	773
1943–44	1,754
1944–45	414
1945–46	69
	—————
TOTAL	3,189

This expenditure has been subdivided into:

	<i>£(000))</i>
Prefabricated buildings for overseas	1,596
Aircraft Dispersal Pens	480
War Workers' Hostels	463
Army Huts	304
Houses and Hostels for Army and RNZAF	162
Camouflage	157
Timber Salvage, etc.	20
Miscellaneous	7
	—————
TOTAL	3,189

Work for the **United States Forces**, which is included in this table, was valued at £1,098,000, mostly prefabricated huts for use in New Zealand or to be transported overseas.

WAR ECONOMY

CONSTRUCTION WORK IN THE PACIFIC

Construction Work in the Pacific

Defence construction work using New Zealand men and equipment extended into the **Pacific**. A good example ¹ was the construction of the aerodrome and base at **Nandi, Fiji**.

Following the recommendations of the Pacific Defence Conference in April 1939, 117 acres had been acquired at **Nandi** for the building of an aerodrome of three runways. A seaplane base site was also surveyed at **Tonga**.

¹ Information taken from J. M. S. Ross, *Official New Zealand War History, Royal New Zealand Air Force*, pp. 70–5.

The **Nandi** contract was given to a private construction company and a start was made on the aerodrome the day war was declared. It was practically completed by March 1940 and the construction machinery was sent to **Tonga**, where work began in April.

Shortly before **Japan** entered the war, a conference was held at **Suva** between New Zealand and American officers and the Government of **Fiji**. The Americans were anxious to form a base at **Nandi** to serve as a station for their **Far East** reinforcing route. The New Zealand Government agreed to undertake the necessary extensions at **Nandi**. The Americans promised construction equipment, but, as it turned out, none could be spared and no material assistance was received from them.

No. 2 Aerodrome Construction Squadron of the **RNZAF** left New Zealand in November 1941 to carry out initial work, such as buildings for accommodation. Ten days later a thousand men, who had been formed by the Public Works Department into a **Civil Construction Unit**,

followed them. The heavy equipment required, tractors, bulldozers, and the like, was gathered from all parts of New Zealand and transported to **Fiji**. More equipment was contributed by local goldmining and sugar-milling companies.

Gillespie writes: ¹

‘The successful completion of this project was one of New Zealand's most important achievements in the **Pacific** theatre of war. Three airfields, each with a runway measuring 7000 feet long by 500 feet wide, with revetments and servicing areas, were asked for, the first to be ready by 15 January 1942, the other two by 15 April. Their estimated cost was £750,000, repayable by the United States Government. They required one and a half million yards of earthworks and 20,000 tons of cement, and the estimated time for completion was five months. The airfields were ready before that time. The first three Flying Fortresses landed at **Nandi** on 10 January; three Liberators followed on 23 January, and until the end of the war the Namaka area was a scene of intense air activity as fields were still further extended to cope with the demands of increasing traffic. **Fiji** had begun the vital role (which it still holds) as a staging centre for aircraft moving to and from New Zealand, **New Caledonia, Samoa, Tonga, Australia** and **America**.’

Effective work was done, also, in the construction of a flying boat base at **Lauthala Bay**, near **Suva**. It was in use by March 1942.

In May the **Civil Construction Unit** was withdrawn.

¹ **Oliver A. Gillespie**, Official New Zealand War History, *The Pacific*, p. 41.

WAR ECONOMY

SPECIAL MEASURES IN 1942-43

Special Measures in 1942-43

The building and construction industry faced a seemingly impossible task in 1942, with the rush of defence works to meet the threat of Japanese invasion, to which was soon added the demand for camp and hospital buildings for **United States** forces. Defence construction requirements increased threefold between 1941-42 and 1942-43.

The Commissioner of Defence Construction had the unenviable task of fixing priorities between construction work for the New Zealand armed forces and for the American authorities, and restraining even the most urgent private work. For a time, virtually all private building activity was suspended.

Even with the restraint on private building, construction resources were stretched to the utmost to cope with defence needs. Standardisation and prefabrication were introduced as far as possible, longer hours were worked, and there was rigid control over the use of scarce building materials.

The system of private tendering, previously in use for government work, proved too cumbersome at a time when speed was the major consideration. It was in any case unsuitable in an industry whose resources were saturated by the demand for its services. Tendering was suspended and the work was allocated to master builders, first by the Government Architect and later through district Building Committees.

Unless there could be very detailed inspections, allocation of work without tendering left the gate wide open for inefficiency. In any case, it created an atmosphere of distrust about the content and pricing of work.

After some uneasy experimenting with 'cost-plus' contracts, the 'Standard Master Schedule' system was introduced. Its purpose was to

subdivide defence construction jobs into more or less standardised component operations, and to fix standard rates for each component.¹ Payment, when work was completed, was to be assessed according to the master schedule.

The system became widely used, and offered distinct advantages in coping with the exceptional pressure of demand on the industry's resources. For its effective operation it required the schedule, analysing the job into components, to be drawn up in advance, so that all parties concerned could have a clear-cut statement of the work involved. Unfortunately, construction needs gathered so much momentum, and particular jobs were so urgent, that there was not

¹ The system is described more fully in

always sufficient time and staff available to complete realistic master schedules in advance. Consequently, there were frequent misunderstandings about job content, leading to inefficiency, waste of scarce materials and higher costs.

Inevitably, all this sweeping change gave rise to considerable criticism. There were certainly abuses, which often remained unchecked because of staff shortages in the administering department. However, under the threat of invasion, and with the influx of **United States** forces to be accommodated, speedy construction of defence works had to be the first consideration. In this respect there was little room for criticism.

We have noted the completion in six weeks of camps in the **Paekakariki** area for over 20,000 United States Marines. Another example of 'hurry-up' methods was the erection of the Cornwall Park Hospital near **Auckland** for use by the United States Army. Comprising 122 buildings with a floor area of eight acres, it could take 1500 patients, which was more than the capacity of the Auckland Public Hospital. Preparation of the site was commenced in October 1942. Sixteen weeks later the buildings were up and patients were being admitted.

Examples of this sort can be multiplied, but the quantity of defence construction work crammed into 1942–43 and 1943–44 gives ample evidence of effectiveness in getting work completed.

Meanwhile scarce materials had been conserved by placing restrictions on their use for non-essential work. A series of Building Construction Control Notices in December 1941 and the early months of 1942 had tightened up the restrictions on the use of structural steel, limited the use of corrugated iron to repairs to existing roofs and manufacture of supply tanks, except with the consent of the Building Controller, and limited the use of cement to defence work, freezing works, cool stores or hospitals, except with the consent of a District

Engineer of the Public Works Department.

For some time these controls had to be very rigidly applied; the following report of a statement by the Commissioner of Defence Construction, in April 1942, is revealing: ¹

‘Cement for building may be obtained only by application to the Public Works Engineer, and applications will be granted only if the job is considered vitally important in the national interest or if cement is required to make a building in course of construction structurally safe.

¹ *Dominion*, 9 April 1942.

“A number of large contracts using cement have been suspended,” said Mr Fletcher, “and from the indications of the requirements of the defence programme will probably be shut down for about four months.”

With labour also being increasingly diverted to essential work, private building fell right away. The value of all urban building permits, which had been £11·1 million in 1940–41 and £9·0 million in 1941–42, dropped to £2·7 million in 1942–43.

WAR ECONOMY

HOUSING CONSTRUCTION RESOURCES SWITCHED TO WAR WORK

Housing Construction Resources Switched to War Work

Dwelling construction, a major part of the work of the building and construction industry, had been slow to recover from the effects of the depression of the 1930s. It was not until 1938 that the number of permits for new dwellings again reached its pre-depression level, and then only with the assistance of a substantial number of state-constructed dwellings. The Government had created a Housing Construction Branch in 1936 ¹ and the first state house construction had commenced in March 1937. From then onwards state construction was to play a significant part in determining the overall level of dwelling construction.

The war came before the state housing programme was properly under way. Four hundred state houses had been completed in 1937–38, and 2700 in 1938–39. A target of 5000 houses a year had been set in February 1938, but this level was not to be reached until after the war.

In spite of the increasing pressure of defence construction, permits for new state houses reached nearly 4400 in the financial year 1939–40, compared with 4100 in 1938–39, and 2200 in 1937–38. The pressure for defence works started to have its effect in 1940–41 and the number of new permits for state houses fell to 4000.

In 1942, with priorities drastically altered by the threat of Japanese invasion, the Housing Construction Branch diverted most of its resources to defence work. Its defence construction work was valued at £773,000 in 1942–43 and £1,754,000 in 1943–44, after which it was to fall away rapidly. State house construction fell to 2900 units in 1941–42 and to only 600 in 1942–43.

At the same time, the effect of labour and materials shortages in

restricting private building was being reinforced by a concerted attempt by the controllers to divert into essential works building labour which could not be taken for the armed forces, and to debar the use of scarce materials for any but essential purposes.

Permits for private dwellings, from well over 5000 in each of the first two years of war, fell back to 4900 in 1940–41 and to 4300 in 1941–42, then dropped to 1000 in 1942–43, which, as with state housing, was to be the lowest year.

Chart 51 shows changes in the number of permits issued for new dwellings.

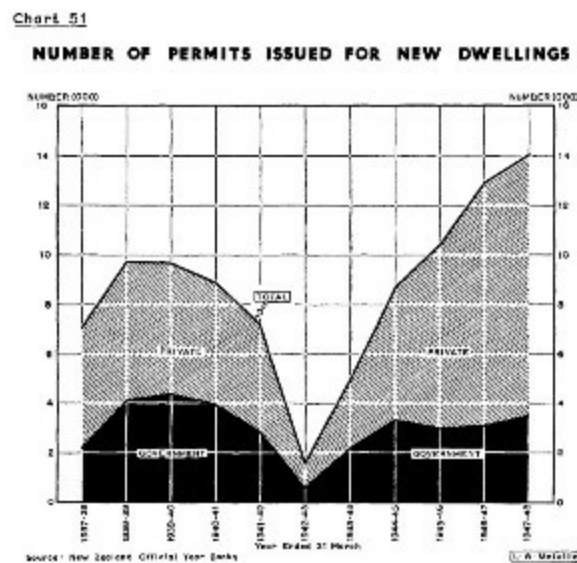


Chart 51
NUMBER OF PERMITS ISSUED FOR NEW DWELLINGS

As defence construction work became less urgent, building resources tended to switch back to housing construction and other types of civilian work. Permits for state houses, which had been at around 600 in 1942–43, were 2200 in 1943–44, and 3300 in 1944–45. Total permits for new dwellings were at their lowest point in 1942–43, when there were 1600 permits. In 1943–44 there were 4900, and in 1944–45, 8700, still 1000 below 1938–39.

¹ Initially a branch of the State Advances Corporation, but to

become a branch of the Public Works Department in 1944.

WAR ECONOMY

MANPOWER

Manpower

Labour for building and construction was already becoming scarce before the war. From the outbreak of war there was a gradual increase in the pressure on manpower, and by November 1941 the industry generally was working from 45 to 54 hours a week. ¹

¹ Parliamentary Paper H-11A, Report of the [National Service Department](#), 1946, p. 39.

The entry of [Japan](#) into the war in December 1941 raised defence construction work to a high priority. We have noted that, in March 1942, a Commissioner of Defence Construction was appointed, and in the same month the building and construction industry was declared essential, so that workers could be directed into it and held in it. Powers to direct workers into essential work had been taken in January 1942. For this purpose specified categories of workers were from time to time required to register for work of national importance. The first batch of registration orders, on 18 March 1942, included one requiring men aged 18 to 70 inclusive, who had experience in building construction, to register for work of national importance. ¹

The Building Committees, which were established in each district, had sub-committees to deal with the allocation of labour, but it was the District Manpower Officers who had the power to direct labour to the industry, and whose approval was necessary before labour could be released.

In March 1942, also, an order was made requiring the working of a minimum 54-hour week on defence works, ² but, as we have seen, this very drastic requirement for working hours lasted only until June 1942,

when hours of work were reduced to 48.³

Wherever possible, normal public works and local authority construction work was postponed during the war years, especially when defence construction was at its height. Road works, in particular, were held over, but so also were land improvement, railways construction, and construction of public buildings. Considerable numbers of men from these works became available for the armed services or for essential work, including defence construction work.

Chart 52 shows changes in the numbers of men engaged on defence works, including those employed by contractors.

Between the 1936 and the 1945 population censuses the numbers of men engaged in the building and construction industry fell from 47,700 to 43,900, confirming the **National Employment Service** estimate that it had one of the largest wartime losses of manpower. However, the decrease in employment on roadworks alone was greater than this intercensal fall, and it must be remembered that roadworks before the war included an element of unemployment relief, and that, with the increased use of mechanised equipment, labour requirements for this type of work were decreasing rapidly.

¹ The Building and Allied Trades' Workers Registration Order 1942.

² The Defence Works Labour Legislation Suspension Order 1942.

³ See also p. 229.

Chart 52

NUMBERS ENGAGED ON DEFENCE CONSTRUCTION WORK

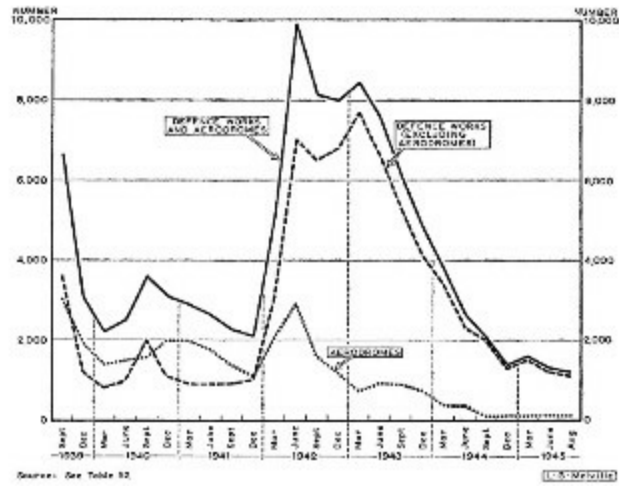


Chart 52

NUMBERS ENGAGED ON DEFENCE CONSTRUCTION WORK

The building and construction industry returned to award conditions in August 1945, when the order requiring a 48-hour week was revoked.

WAR ECONOMY

TIMBER: THE SAWMILLING INDUSTRY UNDER PRESSURE

Timber: The Sawmilling Industry Under Pressure

At the outbreak of war, stocks of timber were good. At this stage the sawmilling industry was producing some 315 million board feet of timber a year, which was being supplemented by imports, mostly of types not available in New Zealand, averaging about 40 million board feet a year.¹ Exports averaged about 15 million board feet a year.

During World War I there had been a steady decline in the demand for timber, and it was expected that a similar decline would occur again. Rather than try to bring about any general reduction in timber output, it was proposed to adjust the supply by opening up smaller areas of new state forest for milling.

Recruiting for the armed services made early inroads on manpower in the timber industry. In 1940, volunteers were called for three forestry companies for overseas service,² to be recruited from men experienced in bush-felling and sawmilling. The industry lost some 500 of its best men to these companies, known as the Forestry

¹ Including the equivalent of 12 million board feet imported as sleepers and logs.

² 11, 14, and 15 Forestry Companies, New Zealand Engineers.

Group. Recruiting for other arms of the services also took its toll and, in a survey of sawmill and bush operations in the second half of 1941, it was estimated that, out of a normal complement of 6700 men, the industry had lost 1800 to the armed forces, but had gained 900 from other industries. Its working force, as a result, was down by 14 per cent.

By this time, it was becoming apparent that the expected reduction in the demand for timber was not likely to eventuate. As civilian construction work fell off, the demand was taken up by defence construction work, and by November 1941 it was estimated that at least 85 per cent of available timber was being used for essential purposes, such as camps and hospitals, and for containers for munitions and primary produce.

A Timber Controller had been appointed in 1939, and powers had been taken to control the sale and cutting of standing timber and the production, distribution and use of timber and timber products. ¹

The Timber Controller's powers now became more important to the war effort. He had a substantial measure of control over the milling of timber and could require any private owner of forests to sell. His consent was necessary for the erection of a new sawmill or for a change of site of a sawmill. These powers were used to get quicker access to millable trees and to conserve scarce equipment and skilled workers.

In spite of various measures to assist the industry, production started to decline after 1941. Demand accelerated at the same time. **Japan** had entered the war in December 1941. When the threat of invasion brought the need for defence construction work to a peak, the timber industry was declared essential, and working hours were extended in order to obtain maximum production.

In March 1942 the regular weekly hours in the industry were increased from forty to forty-eight in **North Island** mills. ² The restriction of this order to **North Island** mills illustrated the difference in the supply position in the North and South Islands. Timber was in short supply in the **North Island**, but was plentiful in the **South Island**, where there was less military work. Shortage of coastal shipping made it difficult to ship **South Island** supplies to the **North Island**, where they were urgently needed.

In May 1942, men with experience in the timber industry were

required to register for work of national importance.³ Direction of labour to the industry followed. There was some direction of workers from the **South Island** to work in the **North Island**. With

¹ **The Timber Emergency Regulations 1939.**

² **The Defence Works Labour Legislation Suspension Order 1942 (1942/65).**

³ **The Timber Workers' Registration Order 1942, which applied to men between the ages of 18 and 65.**

demands for timber still very high, the shortage of skilled men persisted, and requests were made to the Government to release men from the armed forces. At this time there was a very heavy opposing pressure to recruit extra men from all industries for the armed forces, to meet the possibility of Japanese invasion; but, in view of the demand for timber for defence construction work, over one thousand men were held on appeal in the sawmilling and forestry industry, and Armed Forces Appeal Boards recommended the release of 315 men to return to the industry.

In 1943 it was decided that manpower difficulties in the timber industry warranted the recall of most of the **Forestry Group**. On their return from England, in November 1943, about 250 of the men were directed into the timber industry.

Towards the end of 1943, defence construction work began to taper off, but the housing construction programme soon revived to take its place. Timber stocks had been depleted during the rush of defence construction work, and shortage of stocks was to hamper building operations for some time to come.

Chart 53 shows changes in the production of sawn timber.

Chart 53

PRODUCTION OF SAWN TIMBER

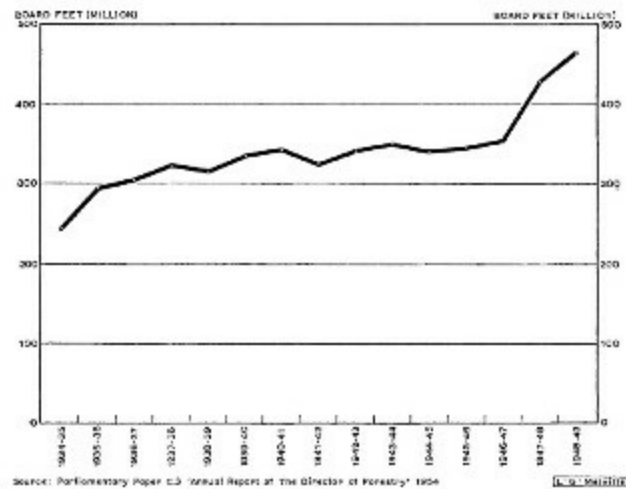


Chart 53

PRODUCTION OF SAWN TIMBER

With civilian building restricted, use of timber during the war years averaged only a little above the highest pre-war year, 1937-38. However, imported supplies had fallen away by some fifteen million board feet, which had to be made good by an industry with a labour force 10 per cent below normal. In 1943-44, the highest wartime year, production was 9 per cent above 1937-38.

WAR ECONOMY

OTHER MATERIALS IN SHORT SUPPLY

Other Materials in Short Supply

Stocks of other building materials were not particularly good at the outbreak of war, and inevitably the upsurge of defence construction work led to scarcities.

Where New Zealand depended on imported supplies, the slowing up of imports created real difficulties, and such small reserve stocks as had been set aside before the war became of vital importance.

We have noted that imports of corrugated iron, after totalling over 20,000 tons in each of the 1936 and 1937 calendar years, had fallen to 13,000 in 1938 and were at 16,000 tons in 1939. A reserve stock for defence buildings had been set aside by the Public Works Department, but was only about three-quarters of the estimated requirement for emergency mobilisation buildings alone. Other stocks of corrugated iron were abnormally low when war broke out.

Then, in 1940, imports of corrugated iron, at 9000 tons, were well under half of 1937 arrivals. Worse was to follow. For the rest of the war imports averaged only 2250 tons a year, about one-ninth of 1937.

Corrugated iron soon became very scarce. Its use was severely restricted throughout the war and for some years after. It was, in fact, one of the principal causes of restrictions on private building. Wartime imports of galvanised flat iron were well below normal, the annual inflow averaging less than half the pre-war amount. Malthoid-covered roofs and, later, wooden gutters became a visible evidence of wartime shortages.

Imports of window glass had fallen away before the war, and stocks at the outbreak of war must have been below normal. In this case, however, imported supplies arrived in fair quantities throughout the war,

and extreme shortages did not develop.

Stocks of gypsum, essential in the making of cement and plaster, ¹ were good when war broke out and imports were well above prewar levels for most of the war years. Imports of plaster of paris, however, fell right away, until at the lowest point, in 1942, only about 1 per cent of pre-war supplies arrived. Here local production was expanded to help fill the gap.

Most of New Zealand's pre-war cement requirements were locally produced, and imports of cement were trivial by comparison with local production. The building and construction industry continued to rely almost entirely on local production throughout the war years. Production in 1939 had reached 231,000 tons but declined, to be close to 215,000 tons, for each of the years 1940, 1941 and 1942, after which it returned to 1939 levels. With increased requirements for defence works, restrictions on the use of cement became for a time a severe limiting influence for less essential works.

Some of these shortages of materials were to continue well after the rush of defence construction work was past. There were, for example, shortages of cement in the second half of 1945, and, as late as November 1945, the use of corrugated iron was not permitted on new buildings, galvanised flat iron could be used only for door and window flashings, and similar restrictions applied to a number of other materials.

¹ The following notes are extracted from *Modern Concrete Construction*, Vol. 1, p. 2, by H. Glanville (Caxton Publishing Company, [London](#), 1950):

Portland cement may be defined as the product obtained by intimately mixing together calcareous (containing lime) and argillaceous (containing alumina), or other silica, alumina, and iron oxide bearing materials, burning them at a clinkering temperature, that is a temperature at which partial fusion occurs, and grinding the resulting clinker, The powder so produced possesses the property of combining chemically with

water to produce a hard or 'set' mass. This chemical combination takes place very rapidly if no 'retarder' is incorporated with the cement.

Gypsum (calcium sulphate) is the material generally used for this purpose, and it is customary to add from two to three per cent to the clinker during the grinding operation.

Plaster of Paris Gypsum (calcium sulphate). Dry plaster is gypsum which has been heated until about one quarter of the original water remains.

WAR ECONOMY

THE CRISIS PASSES

The Crisis Passes

Eventually the southward push of the Japanese in the **Pacific** was slowed up and stopped. As early as the end of 1942, the Chiefs of Staff had been able to report that an invasion of New Zealand could no longer be regarded as even a 'remote probability'.¹

The home army was allowed to decline progressively in numbers from its peak in September 1942.

The critical stage of defence construction work had passed, but for some time there were to remain considerable strains on the building and construction industry. A large programme of defence works remained to be done and stocks of many materials had been depleted in the critical period. Moreover, much important civilian work had fallen into arrears and would soon have to receive higher priority in the construction programme.

Urgent work still to be done included expansion of munitions manufacturing, linen flax factories, food-processing and canning factories, export storage space and the development of hydro-electric schemes to meet the growing shortage of electric power.

Recognising the change in emphasis, the Government created a **Ministry of Works** in March 1943, and Mr Fletcher relinquished his powers as Commissioner of Defence Construction to become

¹ Parliamentary Paper D-3, **Ministry of Works** Report, 1946, p. 8.

Commissioner of Works.¹ Broadly, the functions of the new **Ministry of Works** were to establish priorities for government or subsidised

construction works and to ensure that such works were carried out efficiently.

Labour regulations were also broadened in their scope. With the decreasing proportion of military work being carried out, the special working conditions on this work tended to cause friction when it was done alongside other work where the requirements were less rigid. In June 1943 the order fixing conditions for defence construction work gave way to a more general order covering a wide range of defence and civilian priority work. ² A minimum 48-hour week was to apply. On this broader front, the Building Controller continued to decide priorities and to control the issue of permits.

¹ He returned to private enterprise in December 1944.

² The Defence Works Labour Legislation Suspension Order 1942 gave way to the Essential Building Works Labour Legislation Modification Order 1943.

WAR ECONOMY

REVIEW OF DEFENCE CONSTRUCTION WORK

Review of Defence Construction Work

During the war more than £50 million of defence work was completed, equivalent to some seven times the annual pre-war outlay for state and private housing. The [Ministry of Works](#) in its 1946 report ³ said:

‘It has been estimated that the provision of the whole of the accommodation which was constructed for New Zealand and Allied Forces during the war has involved in all a programme equivalent to the building of seventeen new towns, complete with all services, each with a population of some 10,000. This impressive fact combined with a realization that, apart altogether from the provision of this accommodation, there was a great volume of work done on tank traps, gun emplacements, and other defensive works will serve to give some indication of the great magnitude of the task which was carried out during the war by New Zealand's building and constructional industries.’

The principal value of such comparisons is to give an impression of the extent to which resources were diverted from civilian work and from normal government work, and of the immense backlog of such construction work which accumulated while defence work was receiving top priority.

³ **Parliamentary Paper D-3.**

WAR ECONOMY

CHAPTER 10 – THE FINANCIAL COST OF WAR

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WAR ECONOMY

UP TO TWO-FIFTHS OF ALL OUTPUT DIVERTED TO WAR PURPOSES

Up to Two-fifths of all Output Diverted to War Purposes

IN the two most difficult years, 1942–43 and 1943–44, over two-fifths of all New Zealand's output was required for war. The preceding chapters give some impression of the wide range of direct wartime controls over manpower, materials and production, and of their effectiveness in allocating resources to war purposes. Essential as were these controls to the successful conduct of a major war, they would certainly have failed, without the backing of an adequate financial policy, to divert enough of the national output to war purposes.

The fact was that, apart from capital formation and normal government expenditure, the people had, at the outbreak of war, incomes high enough to buy and consume more than two-thirds of the national output each year. Increases in government expenditure might achieve an immediate diversion of output to war purposes, but they tended also to raise private incomes, thereby giving the private sector the purchasing power to compete for a larger share of output, and hindering the Government in its efforts to bring about further diversions to war purposes. Thus, quite apart from the obvious inflationary effects of competing for scarce output under these conditions, the system would tend to be self-defeating. In short, diversion on the scale required was unlikely to be possible unless financial policy included a concerted effort to take purchasing power out of the hands of the people.

Even in time of war, when the need for personal sacrifices was widely recognised, extensive reductions of the purchasing power in the hands of the public were not likely to meet with universal acclaim. Furthermore, there was always the risk that the disincentive effects of high taxation would retard the war effort.

However, any attempt to finance the war with budget deficits,¹ for

example, by extensive Reserve Bank borrowing, would not only have been inflationary but would almost certainly have failed to divert sufficient of the real national output away from the private sector of the economy.

¹ The expression 'budget deficit' means different things to different people. It is used here in a broad sense, to indicate a situation where the Government takes less from the public by taxation and borrowing than it pays out.

WAR ECONOMY

WAR EXPENSES ACCOUNT

War Expenses Account

In September 1939 the War Expenses Act authorised the initial wartime measures to increase Government revenue, and established the War Expenses Account. In introducing the Bill Mr Nash said: ²

‘It is worthwhile, however, emphasising that the Bill establishes in itself a major principle, that major principle being the complete isolation of war accounts, both revenue and expenditure. The source of the money and how it is expended will be seen in one account, which ultimately will come before Parliament for analysis, criticism, or approval.’

In speaking on the Bill in the Legislative Council the [Hon. W. Perry](#) said: ³

‘We must all realise that as time goes on much heavier taxes than are contemplated by the Bill will be imposed on the people of this country, and will, I know, be borne by the people for the purpose of prosecuting the war to a successful conclusion.... I observe that power is given to the Minister of Finance to borrow £10,000,000. It has been said that the £10,000,000, or a substantial portion of it, may be borrowed from the [Reserve Bank](#). If that be so, then that inevitably must lead to inflation, a principle with which I, for one, thoroughly disagree. If money is to be borrowed to the extent of £10,000,000 or £50,000,000 for the purpose of prosecuting this war then let it not be borrowed from the [Reserve Bank](#) with resultant inflation, but let it be borrowed, if necessary compulsorily, from the people who have it, whether they have it in large amounts or small amounts. I hope that, so far as is humanly possible, this war will be financed as far as New Zealand is concerned out of revenue.’

On pages 253– 5 there appears a classification of war expenditure year by year and of the sources of funds for war purposes, as recorded in War Expenses Account.

² NZPD, Vol. 256, p. 363.

³ Ibid., p. 423.

¹ Detailed analysis is not available for early years.

² Expenditure from 29 September 1939 to 31 March 1940.

⁵ Credit.

NEW ZEALAND WAR EXPENSES ACCOUNT

EXPENDITURE ¹

	1939– 40 ²	1940– 41	1941– 42	1942– 43	1943– 44	1944– 45	1945– 46	From ince to 31/3
	£(000)	£(000)	£(000)	£(000)	£(000)	£(000)	£(000)	£(000)
NAVY								
Pay and allowances		3,688			2,179	2,651	3,527	12,0
Accommodation, clothing and victualling		949			704	432	561	2,64
War and other stores		4,634			2,119	1,239	183	8,17
Lands, buildings and ships		3,167			2,109	714	745	6,73
Other		3,747			1,137	1,603	998	7,48
Total, Navy	902	2,109	4,628	8,546	8,248	6,639	6,014	37,0
ARMY								
Pay and allowances		49,015			30,628	23,137	23,184	125,

Accommodation, clothing and victualling		15,056			3,922	2,665	2,399	24,0
War and other stores		55,556			34,602	20,358	-7,022 ⁵	103,
Lands, buildings and fortifications		8,536			1,925	695	308	11,4
Other		13,097			7,010	4,114	5,149	29,3
Total, Army	3,573	17,249	31,539	88,899	78,087	50,969	24,018	294,
AIR FORCE								
Pay and allowances		8,231			10,988	10,452	9,298	38,9
Accommodation, clothing and victualling		3,184			2,589	2,127	1,596	9,49
War and other stores		13,051			15,352	18,223	15,515	62,1
Lands, aerodromes and other buildings		10,110			3,019	958	485	14,5
Other		11,483			1,806	1,523	5,228	20,0
Total, Air Force	2,596	7,488	11,716	24,259	33,754	33,283	32,122	145,
CIVIL	£(000)	£(000)	£(000)	£(000)	£(000)	£(000)	£(000)	£(00
Subsidies to primary producers			838		1,420	2,460	1,498	6,21
Subsidies for stabilisation purposes			935		1,422	2,559	3,033	7,94
Other			17,967		5,018	-129 ⁵	-2,891 ⁵	19,9
Total, Civil	35	278	4,494	14,933	7,860	4,890	1,640	34,1
OTHER								
Rehabilitation				75	544	1,243	2,573	4,43
Reciprocal Aid—Reverse Lend-Lease				6,986	24,453	26,735	22,778	80,9
Gratuities							18,000	18,0
Aeroplane fund		95	68					163

Amortisation of debt	3,648	7,351	241	10,216	6,250	27,500	55,2
Total, Other	3,743	7,419	7,302	35,213	34,228	70,851	158,
TOTAL EXPENDITURE ³	7,106	30,867	59,796	143,939	163,162	130,009	134,645
	⁴						669,

⁵ Credit.

⁵ Credit.

³ Including amortisation payments.

⁴ In some statements of War Expenses Account the total expenditure for 1940–41 is shown as £31·6 million, and for all years up to 31 March 1946 as £670·3 million.

NEW ZEALAND WAR EXPENSES ACCOUNT
RECEIPTS

	1939– 40	1940– 41	1941– 42	1942– 43	1943– 44	1944– 45	1945– 46	From incepti to 31/3/4
	£(000)	£(000)	£(000)	£(000)	£(000)	£(000)	£(000)	£(000)
Loans ⁶	3,086	18,152	31,767	78,041	72,755	54,418	37,183	295,40
War Taxation	2,182	15,745	21,937	39,556	45,444	48,733	51,417	225,01
Transfers from Consolidated Fund	2,288		3,226	3,172	11,700	6,200		26,586
Disposal of surplus assets						3,479	11,270	14,749
Miscellaneous receipts	304	488	3,918	28	92	1,442	1,337	7,609
Rehabilitation donations and repayments				7	28	118	368	521
Aeroplane Fund		157	6					163

Fijian Government Contribution	51	118					169
Reciprocal Aid—Lend-Lease		26,813	32,478	24,248	21,030		104,56
Canadian Mutual Aid				297	5,806		6,103
Transfer of profits from Marketing Pool Accounts		218	43	47	69		377
TOTAL RECEIPTS	7,860	34,542	60,905	147,953	162,540	138,982	128,480 681,26

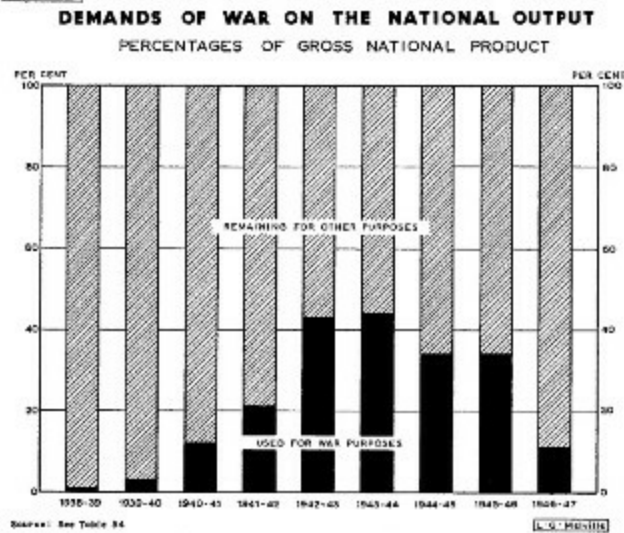
⁶ Including £53 million of the monies paid overseas on New Zealand's behalf by the **United Kingdom**, and progressively repaid.

In the financial year 1938–39 the Government had spent £3 million on defence, but this was more than doubled in the first year of war. Expenditure through War Expenses Account then increased by tremendous leaps to a peak of £163 million in 1943–44.

Because of the inclusion of loan repayments, and for other less important reasons, expenditure through War Expenses Account is not a precise measure of the cost of war. However, it does give a reasonable first general impression of the increasing proportion of the national output which was diverted to war purposes.

Chart 54 shows the proportions of national output used for war purposes.

Chart 54

**Chart 54**

DEMANDS OF WAR ON THE NATIONAL OUTPUT
PERCENTAGES OF GROSS NATIONAL PRODUCT

The mounting pressure on national resources in 1940–41 and 1941–42 shows clearly in this chart, and the jump to well over two-fifths of national output for war purposes in the two most difficult years, 1942–43 and 1943–44.

War Expenses Account gives, also, a general impression of the main items of the cost of war and of the means of raising the necessary revenue. The table which follows excludes loan repayments but otherwise shows, by items, the total of payments through War Expenses Account for the years 1939–40 to 1945–46.

THE COST OF WAR ¹

Totals up to 31/3/1946

<i>Navy, Army and Air Force</i>	£(m)
Pay and allowances and gratuities	195
Accommodation, clothing and victualling	36
War and other stores	173
Land, buildings, ships, fortifications, and aerodromes	33
Other	57
<i>Reciprocal Aid</i>	
Reverse Lend-Lease	81
<i>Subsidies ²</i>	
To primary producers and for stabilisation purposes	14

Other Items

Miscellaneous expenses and rehabilitation	25
	<hr/>
	615 ³

The five items under the heading Navy, Army and Air Force, totalling £494 million, were obviously genuine costs of war, as was most of the sum of £25 million under miscellaneous expenses and rehabilitation. The £81 million of Reciprocal Aid may appear doubtful, because it was requited by Lend-Lease aid received from the **United States. On the other hand, this £81 million of expenditure by New Zealand represented a diversion of her own resources to war purposes, and must be regarded as a cost of war, even though the assistance received from the **United States** enabled New Zealand's war effort to be larger and more effective than would otherwise have been possible.**

The £14 million cost of subsidies charged to War Expenses Account was not strictly a cost of war to the nation, because it was a transfer payment back from the Government to the private sector of the economy. However, it was a cost incurred by the Government as a result of the war and, unlike the loan repayments which have been excluded from this table, did not reduce the Government's indebtedness. It is therefore included in this first assessment of war costs; but later in this chapter in the national income type of analysis, which is concerned with the provision of goods and services, and their use, the £14 million of subsidy payments is excluded. Incidentally, the £14 million did not cover all subsidy payments. For example, some were charged to the farm produce stabilisation accounts. ⁴

¹ A rearrangement of expenditure items in War Expenses Account.

² This item does not include all subsidies paid during the war.

³ A further £55 million was provided from War Expenses Account

for amortisation of debt, bringing the total recorded expenditure to £670 million.

⁴ See also

The years 1939–40 to 1942–43 required rapid, and at times painful, readjustments of national patterns of expenditure. The proportion of the national product required for war rose from 1 per cent in 1938–39 to 44 per cent in 1943–44. ¹ Until 1945–46 more than one-third of all goods and services would be required to meet the costs of war.

¹ As recorded in the unadjusted War Expenses Account figures.

WAR ECONOMY

INTERNATIONAL COMPARISONS OF WAR COSTS

International Comparisons of War Costs

The economic burden of New Zealand's war effort was very heavy. Of the allied nations, only the **United Kingdom** and the U.S.S.R. entered into relatively heavier financial commitments for war. Approximate figures for the calendar years 1939 to 1944 are available for six countries.

<i>Country</i>	<i>War Expenditures from 1939 to 1944 as a Percentage of National Income ² (Approximate percentages)</i>
United Kingdom	43
U.S.S.R.	37
New Zealand	31
Australia	29
Canada	29
United States of America	24

Russia did not enter World War II until June 1941, though her war expenditure was proportionately the largest of the six in 1939, and larger than all but the **United Kingdom** in 1940 and 1941. ³ The **United States of America** did not enter the war until December 1941 and, with the possible exception of 1939, her proportionate expenditure was lowest of the six in each year until 1944.

It is interesting also to compare the proportionate costs of war for the years 1942, 1943 and 1944, when the war effort of each of the six was most intensive.

<i>Country</i>	<i>War Expenditures from 1942 to 1944 as a Percentage of National Income ¹ (Approximate percentages)</i>
United Kingdom	53

New Zealand	51
Canada	48
U.S.S.R.	46
Australia	45
United States of America	41

New Zealand, in this table dealing with the most exacting years of the allied war effort, moves up to second place. The relative strain of war on her economy, according to the information used in these tables, reached 53 per cent in 1943, which was the highest level reached by any allied country in any war year. It was achieved only by the **United Kingdom, Canada and New Zealand. However, whereas **Canada** and New Zealand reached this level in 1943 only, the **United Kingdom** sustained it for three years.**

² **These figures are derived from a chart published in the *Twentieth Report to Congress on Lend-Lease Operations*, p. 41. The New Zealand figures differ from those derived from the New Zealand Official Estimates, but it is assumed that this arises from attempts to make the percentages for the six countries as comparable as possible. Comparison is made against net national income at market prices. New Zealand and other figures for calendar years may have been calculated by interpolation. In any case, no great accuracy can be claimed for international comparisons of this sort.**

³ **Russia** was at war with **Finland** in late 1939 and early 1940.

¹ See p. 258, **note 2**.

WAR ECONOMY

FINDING THE MONEY

Finding the Money

It was fortunate for the stability of the internal economy that the Government was determined to pay for the war substantially out of taxation and internal borrowing. Income tax increases reduced the disposable income of the people and cut back their ability to spend. Extra purchase taxes discouraged spending and, when money was spent, took part of it away from the private sector of the economy. Extra borrowing from the public, so long as it was not financed by bank credit, reinforced the effects of extra taxation. It might have come out of income and might have reduced consumption expenditure, or, if it took money already saved, would have made less available for private capital expenditure. ² All these methods of raising money tended to reduce purchases of goods and services by the people, and to leave more resources available to satisfy war needs.

A summary of the sources of war finance is given in the following table, which is based on War Expenses Account.

HOW THE COST OF WAR WAS RAISED ¹
Totals up to 31/3/1946

	£(m)
Special war taxation	225
General taxation (transfers from Consolidated Fund)	27
Borrowing in New Zealand	242 ²
Lend-Lease and Canadian Mutual Aid	111
Other receipts	23
	628 ²

Out of a total of £628 million made available for war purposes, £242 million was raised by internal loans, and £225 million by special war taxation. A total of £27 million was transferred from the Consolidated Fund, and could for all practical purposes be regarded as having been

met from general taxation. A further £111 million represented the value of goods and services made available through Lend-Lease and Canadian Mutual Aid, leaving only £23 million of receipts from other sources.

Thus, out of a total of £628 million, the people and institutions of New Zealand had by 31 March 1946 made available, by lending or in taxes paid, £494 million, or close to 80 per cent. The balance was met by reciprocal aid arrangements and, to a minor extent, by other receipts. There was no outstanding overseas debt as a result of World War II.

² In the special circumstances of war, some of the savings would have remained idle if not borrowed by the Government; but there would have been an undue growth of liquid assets in the hands of the public.

¹ A summary of receipts through War Expenses Account, modified as in note 2. See also p. 255.

² A further £53 million was recorded as borrowed from the **United Kingdom** under the Memorandum of Security, but it was progressively repaid, the final payment being made early in 1946. See also p. 270. The 1946 Budget Statement gives the sum borrowed and repaid under the Memorandum of Security as £60·8 million, but only £53·4 million was recorded in War Expenses Account

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WAR ECONOMY

TAXATION

Taxation

Taxation, in all its forms, increased year by year from just under 19 per cent of private income in 1938–39 to nearly 32 per cent in 1944–45. For war purposes taxation revenue was stepped up by increases in income tax rates, by a new national security tax at a flat rate on income, and by increases in sales taxes.

Income tax on individuals, which took, on average, less than 1s. in the pound of their income before the war, was taking 1s. 6d. in the pound at the end of the war. The War Expenses Act 1939 increased all rates of income tax for the 1939–40 tax year by 15 per cent, and the same surcharge was made for the following two years. ¹ In 1942–43 the surcharge was increased to 33 1/3 per cent, and was to remain at that level until it was reduced to 15 per cent for the 1946–47 tax year.

In addition to the surcharges on income tax, a new tax on income, the national security tax, was imposed by the Finance Act 1940, specifically for war purposes, and came into operation from 21 July of that year. Like the social security charge, which had been introduced in April 1939, this was a flat rate on virtually all income, being fixed originally at a shilling on every £ of income. It was increased, by the Finance Act 1942, to 1s. 6d. on every £ of income. This latter rate was to remain in force until 1946.

In 1938–39 and earlier years there had been a charge on incomes of 8d. in the £ for employment promotion, but this had been superseded by the social security charge in 1939–40. Social security charge had been fixed at a shilling in the £ at the inception of the scheme in April 1939 and remained at that rate throughout the war. In May 1946 the social security charge would rise to 1s. 6d. in the £, but the national security tax would fall by 1s. to sixpence in the £. ²

Changes in revenue from each type of taxation are shown in the table on p. 263, which also gives a useful summary of the special taxation levied for war purposes.

For individual taxpayers the position changed as follows:

¹ To give some impression of the incidence of these tax increases the rates of tax (in brackets) fixed by the 1939 Budget for a man with a wife and two dependent children on various earned incomes were: £300 (Nil), £400 (£5), £1,000 (£83), £5,000 (£1,366), £8,000 (£3,203).

² National security tax was abolished in April 1947.

DIRECT TAXES ON INCOMES OF INDIVIDUALS

	Rate of Tax per £ of Income	
	1938– 39	1944–45
Income tax (average rate on all assessable income)	1s. 0d.	1s. 6d. ¹
Employment promotion tax	8d.	–
Social security charge	–	1s. 0d.
National security tax	–	1s. 6d.
	—	—
	1s. 8d.	4s. 0d.

With these changes in direct taxes on income, the amount of direct tax per head of population increased steadily from £8 17s. 5d. in 1938–39 to reach over 4 ½ times this level, £41 2s. 3d., in 1944–45.

Provision for additional revenue for war purposes was also made by way of indirect taxation in September 1939, when the duty on motor spirits was raised from 10d. to 1s. 2d. a gallon, and the duty on tobacco, cigars and cigarettes was increased by 25 per cent. Beer duty rose, also, from 1s. 9d. a gallon to 2s. These and other changes were expected to bring in about £1 million a year in extra revenue. Sales tax, which stood

at 5 per cent on a wide range of goods, was not raised until June 1940, when it was doubled, in order to bring in another £3 million a year.

Further alterations in indirect taxation were made in May 1942, when the rates on tobacco and alcoholic liquors were again substantially raised. At the same time, sales tax on most taxable goods was once more doubled, to reach 20 per cent of the sale value. Indirect taxes remained at these levels for the rest of the war.

Under these influences, customs and excise duties which had yielded £11·7 million in 1938–39 were yielding £14·9 million in 1944–45. Yields would have been considerably higher had it not been for the restraining effects of taxation and borrowing on consumption during the war period. The physical volume of private transactions fell, as it had to do if sufficient resources were to be made available for war purposes. Affected by declining imports and restricted private transactions, returns from customs and excise duties actually fell from 1939–40 to 1940–41, and again from 1940–41 to 1941–42. However, the 1942–43 yield was above the pre-war figure and there were steady increases for the rest of the war.

¹ Approximate. The true figure may be a little higher than this. Incomes and income tax statistics were not compiled from 1942–43 to 1945–46 inclusive.

<i>Financial Year</i>	REVENUE FROM TAXATION							
	£(m)							
	1938– 39	1939– 40	1940– 41	1941– 42	1942– 43	1943– 44	1944– 45	1945– 46
CONSOLIDATED FUND								
Customs revenue ¹	10·7	9·9	8·8	8·1	7·0	7·7	8·5	8·8
Beer duty ¹	1·1	1·4	1·6	1·7	1·8	2·0	2·1	2·3
Sales tax ¹	3·6	3·5	3·5	3·5	3·6	3·8	4·1	4·5
Film-hire tax	0·1	0·1	0·1	0·1	0·1	0·1	0·1	0·1
Motor-vehicles	3·1	3·0	2·4	2·3	1·7	1·7	1·9	2·3

taxation								
Death duties ¹	1·8	1·6	–	–	–	–	–	–
Duty on instruments	0·4	0·4	0·4	0·3	0·4	0·5	0·4	0·5
Racing taxation	0·7	0·8	0·8	0·7	0·7	0·9	1·1	1·6
Amusements tax	0·1	0·1	0·1	0·1	0·1	0·1	0·2	0·2
Other stamps	0·4	0·6	0·4	0·5	0·5	0·6	0·6	0·6
taxation								
Land tax	1·1	1·0	1·0	1·0	1·0	1·0	1·0	0·9
Income tax ¹	9·3	10·3	15·7	16·5	19·1	23·5	25·7	26·5
Miscellaneous	0·1	0·1	0·1	0·1	0·1	0·1	0·1	0·1
Total Consolidated Fund	32·3	32·8	34·9	35·2	36·2	42·0	45·7	48·4
SOCIAL SECURITY TAXATION								
Social Security charge	5·0 ²	8·9	10·1	10·4	11·6	12·8	13·7	14·6
Registration fee	0·5 ²	0·7	0·6	0·6	0·6	0·6	0·6	0·6
Total Social Security Taxation	5·5 ²	9·5	10·7	11·1	12·2	13·4	14·3	15·1
WAR TAXATION								
National Security taxation	–	–	6·3	10·5	16·8	19·2	20·5	21·7
Income tax	–	1·3	2·4	2·4	6·4	7·8	8·6	8·8
Death duties	–	0·1	3·2	3·8	4·7	4·5	5·1	5·0
Customs duties	–	0·3	0·7	0·6	2·3	2·7	2·8	2·9
Beer duty	–	0·1	0·2	0·2	1·2	1·5	1·5	1·7
Sales tax	–	–	2·2	3·5	7·4	9·0	9·5	10·6
Postage	–	0·3	0·5	0·7	0·6	0·6	0·6	0·6
Miscellaneous	–	0·1	0·2	0·2	0·2	0·1	0·1	0·1
Total War Taxation	–	2·2	15·7	21·9	39·6	45·4	48·7	51·4
TOTALS	37·8	44·5	61·4	68·2	87·9	100·8	108·7	114·9

¹ War taxation collected under these items is shown separately.

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² Employment promotion taxation; superseded by Social Security taxation from 1 April 1939. See also [Table 55](#).

² Employment promotion taxation; superseded by Social Security taxation from 1 April 1939. See also [Table 55](#).

² Employment promotion taxation; superseded by Social Security taxation from 1 April 1939. See also [Table 55](#).

The most significant increases in tax yields were from direct taxation on incomes. As a proportion of all taxation, these direct taxes rose from 38 per cent in 1938–39 to a peak of 63 per cent in 1944–45. In this latter year direct taxes took £68 million out of private incomes totalling about £340 million, while other taxes took a further £40 million.

Chart 55 shows revenue received from taxation, classified according to the purpose for which the taxation was levied.

Chart 55

REVENUE FROM TAXATION

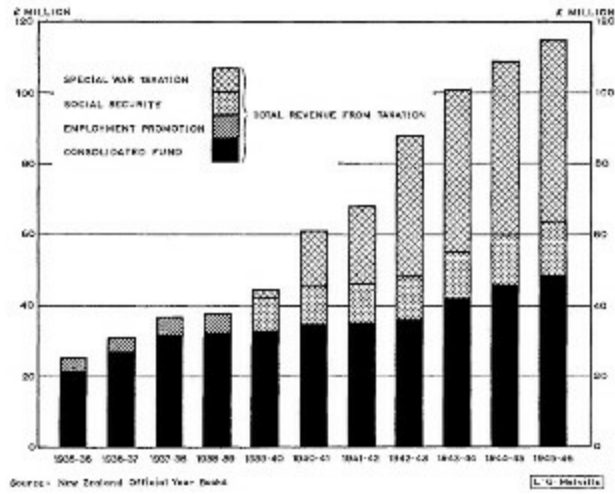


Chart 55
REVENUE FROM TAXATION

WAR ECONOMY

BORROWING IN NEW ZEALAND

Borrowing in New Zealand

Though war taxation bit deeply into incomes, it was borrowing which, in every year except 1945–46, provided most funds for war.

After 1939 a substantial internal loan was floated in each war year, with two loans in 1942. The Government had decided that the great bulk of the borrowing would be done internally, and, though war payments made on New Zealand's behalf by the **United Kingdom** were recorded as loans, they were progressively repaid out of money raised internally for war purposes. ¹

¹ See also p. 270. One can seldom say with certainty which state revenues were used for any particular purpose. However, the general effect is as stated in the text.

The New Zealand held public debt rose from £146 million in March 1939 to £473 million in March 1946, providing £327 million for wartime finance, and no doubt taking a very substantial proportion of this sum out of money which would otherwise have been spent on consumption or on private capital formation. The gross amount of new borrowing internally between March 1939 and March 1946 was £358 million, but a further £27 million was converted from the register of externally held debt. Repayments of £59 million reduced the net sum to £327 million. ¹ Of the £358 million of gross new borrowing in New Zealand, £242 million was used to meet war costs, ² £74 million was used for development works, such as hydro-electric generating stations and state housing, £29 million was used to repay overseas debt ³ and £13 million for other purposes. ⁴

In the same period, from March 1939 to March 1946, overseas debt,

expressed in New Zealand currency, was reduced by £45 million. The overseas held public debt stood at £167 million in March 1939 and was only £3 million higher in March 1945. Substantial repayments were made in the next financial year, and by March 1946 the debt stood at £122 million. ⁵

The Government's policy of borrowing internally had the effect of changing the proportion of the public debt held in New Zealand from 47 per cent in March 1939 to 80 per cent in March 1946.

Of the £242 million borrowed in New Zealand for war purposes, some £10 million was raised by way of compulsory loan.

In the 1940 Budget Statement, Mr Nash said: ⁶

‘A start towards the provision of interest-free loans has already been made by generous voluntary effort on the part of many citizens, and to date nearly sufficient has been subscribed to balance the War Expenses Account to the end of last financial year. But that is not sufficient. It is not right that others equally capable of affording assistance should not make their due contribution. In this connection it is the intention of the Government to formulate for the consideration of the House a procedure under which all who have means will be required to assist by subscribing to loans for these purposes. Those who already have or who may in the future voluntarily lend money free of interest, may have the amount already subscribed taken into account in determining their total liability under this heading.’

¹ Individual figures given do not add exactly, due to rounding.

² See also pp. 260 and pp. 274.

³ See p. 271.

⁴ Including £7 million for purchase of Bank of New Zealand

shares.

⁵ See also p. 271. All figures in this paragraph exclude £33 million (NZ) of contingent liability to the United Kingdom Government.

⁶ Parliamentary Paper B—6, Financial Statement, 1940, p. 8.

However, only the first war loan, issued in 1940 and maturing in 1953, was compulsory. The minimum subscription was to be ‘an amount equivalent to the amount of income-tax payable in respect of income derived during the year ended 31st March, 1939, decreased by £50 in the case of individuals and £70 in the case of companies.’¹ The stock was not to bear interest until 1 October 1943.

Special war loans for voluntary public subscription, floated with intensive publicity appealing to the patriotism of the people, became a feature of wartime borrowing. Public support for these loans was generally very encouraging.

Chart 56 shows the rapid increase in public debt over the war years and the extent of the concentration on internal borrowing.

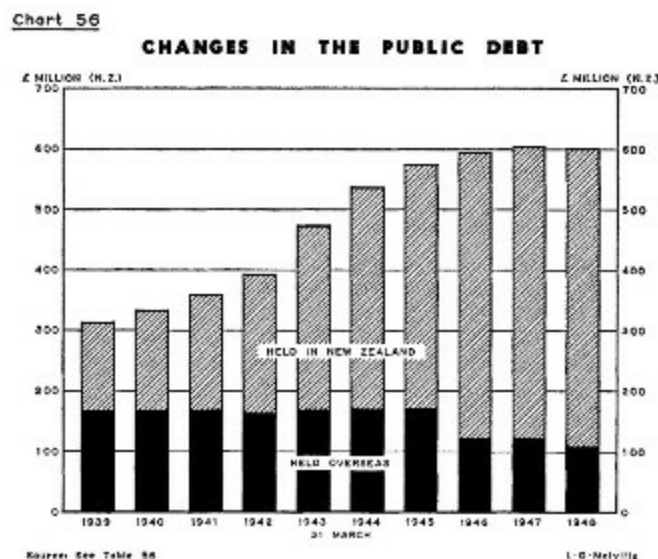


Chart 56
CHANGES IN THE PUBLIC DEBT

A summary of successive war loans follows. ²

¹ *New Zealand Official Yearbook*, 1941, p. 523. The minimum subscription was to be calculated to the nearest £10, and tax-free income was to be treated as subject to income taxation for the purpose of ascertaining this minimum.

² Adapted from *New Zealand Official Yearbook*, 1947–49, p. 437.

WAR LOANS

<i>Year and Month of Issue</i>	<i>Amount of Loan in £(m)</i>	<i>Contribution in the Form of</i>	<i>Rate of Interest Per Cent</i>	<i>Date of Maturity</i>	<i>Remarks</i>
1940	10 ¹	Stock	2 ½	1 Oct 1953	Compulsory. Non-interest bearing to 1 Oct 1943.
Aug 1941	10	Stock (two classes)	2 ½ 3	1 Aug 1946 1 Aug 1951–54	Oversubscribed £200,000.
May 1942	15	Stock (two classes)	2 ½ 3	15 Sep 1947 15 Sep 1952–55	1st Liberty Loan. Oversubscribed £2,500,000.
Oct 1942	10	Stock (two classes)	2 ½ 3	15 May 1948 15 May 1953–58	2nd Liberty Loan. Oversubscribed £500,000.
Jun 1943	35	Stock (two classes)	2 ½ 3	15 Jun 1947–49 15 Dec 1953–56	3rd Liberty Loan. Oversubscribed £4,275,000.
Aug-Oct 1944	40	Stock (two classes)	2 ½ 3	15 Feb 1949–50 15 Feb 1955–58	Victory Loan. £672,104. Oversubscribed

May-Jun 1945	25	Stock (two classes)	2 ½ 3	15 Apr 1950-51 15 Apr 1956-59	Victory Loan. about £500,000. Oversubscribed
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¹ **Approximately.**

In addition to these loans, the National Savings Act 1940 made provision for the issue of savings bonds, with a five-year term, in denominations of £1, £10, and £100, and for the opening of special savings accounts with the Post Office and trustee savings banks. These special savings accounts were to have a two- or three-year term. The bonds and accounts bore interest at 3 per cent. Money invested under this scheme was paid into War Expenses Account. By 31 March 1946 a net total of £40 million was invested.

WAR ECONOMY

SOURCES OF INTERNAL BORROWING¹

*Sources of Internal Borrowing*¹

Government borrowing in New Zealand, like taxation, can be more than a means to raise money for the Government to spend.² It can be used as an economic policy measure to take money out of the private sector of the economy, so that high priority national undertakings can have command over sufficient resources without undue competition from private spending. This is particularly important where private incomes are rising and parts of the national productive resources are already fully employed, a combination of circumstances usually found when the country is engaged in a major war.

When government borrowing in New Zealand is regarded in this light, it is apparent that some types of borrowing will be less effective than others in reducing the spending power of the private sector. In particular, borrowing from the **Reserve Bank does not take money away from the private sector. Nor does borrowing from the trading banks, unless trading banks which lend to the Government find themselves, as a result, restricted in their normal lending. Usually, lending by banks to the Government does not seriously affect their ability to lend to the public. During the war the trading banks generally had ample funds available and there was little of this countering effect. In short, government borrowing from the banking system during the war tended to be an inflationary influence. Compared with other allied countries, New Zealand relied comparatively little on this source of war finance.³**

In the three years up to 1939, the Government's net indebtedness to the banking system had increased by £21 million: from £3 million in March 1936 to £24 million in March 1939.⁴ Part of this increase

¹ Care is necessary to distinguish between figures for gross

borrowing and those for net borrowing, after there have been repayments. Figures used under this heading are net.

² This is not to suggest that taxation and borrowing are identical in their effects. A taxation increase, for example, can be much more depressive than the borrowing of an identical sum from the public.

³ Speaking on war finance in the Budget debate in 1950, Mr Nash said, 'We raised less money proportionately from the banking system than any other English speaking country.'— *NZPD*, Vol. 290, p. 1912. An attempt was also made through the **Reserve Bank to secure the co-operation of the trading banks in restricting bank advances for purposes inconsistent with the war effort.**

⁴ The figures used here and in the next few paragraphs were published in *The Reserve Bank of New Zealand Bulletin*, November 1955.

was associated with the financing of the state housing programme and other development projects. Unused labour and other economic resources were at this stage being absorbed into production, and to this extent borrowing from the banks was less inflationary than it would otherwise have been. Nevertheless, it was severely criticised at the time.

1

Between March 1939 and March 1944, borrowing from the banks increased by nearly £52 million, to reach £75·5 million in 1944, a peak figure not to be reached again until 1958. Of the extra £52 million, half was borrowed from the **Reserve Bank, the other half from the trading banks. From 1943 there was a change in policy; the Government then decided not to permit trading banks to subscribe to government loans, and to repay their existing securities as they matured. ² By March 1946 government indebtedness to the banking system had fallen to £66 million, most of the reduction being in trading bank investments in government securities.**

The net effect was that between March 1939 and March 1946 the Government had borrowed an extra £26 million from the **Reserve Bank** and £16 million from the trading banks, a total of £42 million of money for government spending, which was not matched by withdrawals of money from the private sector.

In the broader context of the public debt, this means that of the increase of £327 million in the internally held public debt between March 1939 and March 1946, some £42 million was not represented by withdrawal of spending power from the private sector and therefore, to the extent that it gave rise to extra Government expenditure, it tended to be inflationary in its effects. ³

There were some other sources of government borrowing which did not take money away from the private sector, though they may have reduced government spending in the private sector. Substantial subscriptions to government loans came from government departments, such as the Government Life Insurance Office, the State Fire Insurance Office and the Public Trustee, who held funds for investment.

No attempt has been made to analyse departmental investments in detail. Lists of investments held by various Departments are available, but other transfers of capital funds often lie hidden behind the published records. Until the Department of Statistics first published its *Accounts of the Government Sector* in 1960, there was no detailed study of capital movements between government depart-

¹ See also pp. 9 and pp. 22.

² Report of the Royal Commission on Monetary Banking and Credit Systems, 1956, p. 52.

³ Some of the borrowing from the **Reserve Bank** was for the express purpose of paying off overseas loans, so cannot strictly

be called inflationary. However, it still differed in its effects from borrowing for the same purpose from the people.

ments

and agencies. In any case, the fact that government securities are taken up by a government department does not always mean there is no transfer of funds from the private sector. The largest purchaser of government securities is the Post Office. The funds used are mainly savings by private individuals. Campaigns to increase private savings stepped up balances in ordinary Post Office Savings Bank Accounts, as well as in National Savings and, even where the investor retained the immediate right to withdraw his savings, facilitated the transfer of funds to Government use.

WAR ECONOMY

THE MEMORANDUM OF SECURITY

The Memorandum of Security

For ease of accounting, the British Government agreed to pay the costs of the 2nd New Zealand Expeditionary Force as incurred and then to claim on the **New Zealand Government**. This arrangement was known as the 'Memorandum of Security', and was also used for other New Zealand overseas war commitments including, in particular, her contributions to the Empire Air Training Scheme. ¹

In discussing the Memorandum of Security, in the first wartime Budget statement in 1940, the Minister of Finance, the Rt. Hon. Walter Nash, said.: ²

'... arrangements have been made for the cost of New Zealand's forces overseas to be financed by the United Kingdom Government on a loan basis, New Zealand being charged the same rate of interest on such loans as the **United Kingdom** herself is paying in respect of her war loans. To the extent that this arrangement is utilised we will be piling up deadweight overseas debt that will be a heavy burden on us for many years after the war, when our ability to pay may be less than it is now. We have therefore every incentive to strain every nerve to meet from New Zealand the costs of maintaining our forces overseas as such costs accrue. In New Zealand these costs may be met by taxation or by borrowing. Even if it is necessary to finance by local borrowing, it is a debt we owe to ourselves and not a deadweight burden on the Dominion.'

³

Under the Memorandum of Security the United Kingdom Government paid nearly £6 million in 1940–41 and over £8 million in 1941–42. The next two years added £35 million and, by March 1946, nearly £61 million had been paid by the United Kingdom Government on New Zealand's behalf. ⁴

¹ Under this scheme 131,000 trainees graduated in **Canada**, of whom 5·3 per cent were New Zealanders. New Zealand's share of the cost came close to £10 million.

² Parliamentary Paper B-6, 1940, p. 3.

³ The important question of the availability of overseas funds to make the repayments to the United Kingdom Government is discussed in

⁴ See also p. 260, note 2.

In accordance with the policy set out by Mr Nash, progressive repayments were made. Nearly £1 ½ million was repaid in 1940–41 and a further £11 million in 1941–42, leaving less than £3 million owing at the end of March 1942. Substantial repayments were made in the following years, but New Zealand had some difficulty in keeping pace with the rate of expenditure and, by March 1945, nearly £19 million was outstanding. In 1945–46 a further £3 ½ million was debited, but, in this same year, repayment of the outstanding balance of £22 ½ million was made, clearing the account.

Repayment of this balance before the end of the 1945–46 financial year meant that the entire cost of the war to New Zealand had been met without adding to the country's indebtedness overseas. This was done without any pressure from the United Kingdom Government, but as part of the policy of the Labour Government in New Zealand to meet war costs from New Zealand, as far as possible.

The 1946 Budget statement, in discussing the repayment, said: ¹

‘The debt of £22,500,000 in New Zealand currency representing £18,000,000 sterling was the subject of negotiations in 1944, in conjunction with the lump sum payments totalling £28,000,000 sterling which the British Government agreed to pay. ² The arrangement then made was that a maximum of £18,000,000 sterling borrowed or to be borrowed under the Memorandum of Security would be held over for further discussion at the termination of the war.

‘The New Zealand Government, however, after taking into account all the relevant factors, decided that this debt should be liquidated forthwith.

‘We appreciate the facilities made available to us in this way by the

United Kingdom Government, but have been happy to arrange for repayment in full of the debt so incurred.’

In the same year, the Government paid off £29·6 million of overseas debt, the necessary funds being raised by issuing stock in New Zealand. The stock was taken up mainly by the **Reserve Bank**. In presenting the 1946 Budget, Mr Nash said: ³

‘... An item of outstanding importance, though not producing any variation in the total debt, was the repayment of loans of £16,107,000 on the 1st January 1946, and £13,511,000 on the 1st

¹ Parliamentary Paper B-6, 1946, p. 15.

² These lump sum payments were made up of £12 million ‘as compensation to meet the abnormal increase in prices of New Zealand imports from the **United Kingdom** from 1939 to the present’ and £16 million towards the cost of economic stabilisation in New Zealand, and in recognition of the fact that benefit accrued to the **United Kingdom** through New Zealand's economic stabilisation policy. (Author's footnote.)

³ p. 18.

February, 1946. Except for a small amount of £378,000, these two loans, carrying interest at 5 per cent and 4 per cent respectively, were domiciled in **London**, involving the payment of interest in sterling at the rates I have mentioned. These repayments were effected by the issue in New Zealand of stock totalling £29,618,000 at 2 ½ per cent, the stock being taken up mainly by the **Reserve Bank**, but partly by Treasury Accounts.

‘The net saving in interest on this transaction is approximately £605,000, but the main benefit is the elimination of overseas interest totalling £1,330,000, which, coupled with the annual saving of £675,000 in connection with the Memorandum of Security repayment

gives a net reduction in overseas debt charges of over £2,000,000 per annum.'

Thus, by March 1946, not only was there no outstanding overseas debt arising out of the war, but the overseas debt owing when war began had been reduced.

WAR ECONOMY

OVERSEAS COSTS OF WAR

Overseas Costs of War

In spite of New Zealand's ultimate ability to emerge from the war with a lowered overseas debt, the external cost of war was heavy and the situation was not always free of anxiety. In particular, in late 1942 and early 1943, when increasing food supplies to **United States** forces in the **Pacific** seemed likely to divert too large a portion of New Zealand's overseas fund-earning exports to Reverse Lend-Lease, New Zealand became alarmed about her ability to continue to meet overseas commitments in the **United Kingdom**. The United Kingdom Government, while not unsympathetic, was reluctant to enter into any firm undertaking to protect New Zealand against possible losses of overseas assets. ¹ In the event, farm production was high, exports to the **United Kingdom** were maintained, and, with heavily curtailed private importing, the expected overseas funds crisis did not eventuate.

New Zealand's overseas commitments for the 2nd NZEF and for the Empire Air Training Scheme, amounting to some £60 million, were covered by the Memorandum of Security. As has been noted, these costs were repaid in full by March 1946.

Heavy expenditures of foreign exchange were also involved in the wide range of war materials which had to be imported. A portion of these was received under Lend-Lease and can be regarded as offset by Reverse Lend-Lease goods and services supplied by New

¹ See also

Zealand. The balance had to be met from New Zealand's overseas exchange earnings.

Allowing for these and other overseas commitments, but ignoring losses of overseas exchange earnings, it is estimated that New Zealand had to find some £150 million of overseas exchange to meet war costs. ¹

Without the drastic wartime curtailment of private importing, it would not have been possible to find all this extra overseas exchange. Import restrictions, inability of traditional suppliers to meet orders, the reduction of disposable incomes in New Zealand and extra sales taxes on expenditure all played their part in restraining private imports. The combined effect was sufficient to enable New Zealand's overseas exchange position to be strengthened, in spite of her special war commitments. The improvement was assisted to some extent by **United States expenditure in New Zealand for items not covered by Reverse Lend-Lease, and by the private spending of **United States** servicemen.**

Net overseas assets of the banks rose from their low level of about £9 million at the outbreak of war to about £40 million by the middle of 1942. They were to remain at about that level until the second half of 1944, when they began to increase. The United Kingdom Government started to make lump sum payments to the **New Zealand Government in 1944, ² but this was not the only reason for the improvement. Balance of payments problems are discussed more fully in**

¹ No great accuracy is claimed for this estimate. See also p. 77.

² See also p. 271.

WAR ECONOMY

WAR EXPENSES ACCOUNT COMPARED WITH OTHER REVENUE AND EXPENDITURE ITEMS

War Expenses Account Compared with other Revenue and Expenditure Items

It is useful to bring together the main items of revenue and expenditure, as they were recorded in the Consolidated Fund and the Social Security Fund, and to compare the War Expenses Account items against them. This is done in the table on p. 274. The accounts which record government capital formation and development loans are excluded from this analysis. ³

War expenditure, at a total of £615 million for the seven financial years 1939–40 to 1945–46, made the totals of £133 million for permanent appropriations, £133 million for annual appropriations, and £113 million for social security look comparatively insignificant.

SELECTED ITEMS OF RECEIPTS AND PAYMENTS OF THE CENTRAL GOVERNMENT Financial Years 1939–40 to 1945–46 inclusive.

Covers War Expenses Account and the items of (mainly) current receipts and payments which were recorded in the Consolidated Fund and the Social Security Fund ¹

Receipts	£ million
<i>Special war taxation</i>	225
Social Security charges and levies	86
Other taxation	275
	586
<i>War loans</i> ²	242
<i>Lend-Lease and Mutual Aid</i>	111
Interest	29
<i>Other receipts for war purposes</i>	23
Other receipts	20
	—
TOTAL	1,011

Payments	£ million
Permanent appropriations	
Interest	83
Amortisation and management of debt	23
Exchange	9
Transfer to Highways Account	15
Other (excluding defence)	3
	133
Annual appropriations	
Administration, law and order	34
Development of primary and secondary industries	20
Social services (excluding payments from Social Security Fund)	72
Maintenance of public works	6
Other	1
	133
Social Security expenditure	113
<i>War expenditure</i>³	615
Excess receipts over payments	17
	—
TOTAL	1,011

The items in italics refer to War Expenses Account.

³ **Government capital formation is discussed in other chapters. The purpose here is merely to make some comparisons which will put War Expenses Account items into perspective. Chart 57 has a bearing on these comparisons.**

¹ **Loans for national development and major items of government capital formation, as recorded through National Development Loans Account, Public Works Account, Electric Supply Account, Land for Settlements Account, etc. are excluded.**

² **Excluding £53 million recorded as borrowed under the Memorandum of Security, but repaid by 31 March 1946.**

³ Excluding £55 million for redemption of securities.

WAR ECONOMY

DIVERSION OF RESOURCES

Diversion of Resources

The best available picture of the massive diversion of resources to war purposes is obtained through the national income, output and expenditure analysis. It is unfortunate that detailed national income estimates are available only for 1938–39, 1943–44, and for 1946–47 and following years. Because 1943–44 was the year when war expenditure was at its highest, it is still possible, through these records, to show some of the more important changes in expenditure patterns. In 1938–39, 82 per cent of all goods and services were used for consumption purposes and 17 per cent for the creation of capital assets. Defence took only 1 per cent.

By 1943–44 ‘defence and war’ was taking 42 per cent¹ of all goods and services used; consumption had dropped from 82 per cent to only 50 per cent, and the creation of capital from 17 per cent to only 8 per cent.² It is probable that the distribution in 1942–43 had been very similar to that in 1943–44, so that most of this drastic reallocation of resources occurred in the four years from 1938–39 to 1942–43.

After 1943–44 there was some relaxation of the pressure to divert resources, and in 1944–45 and 1945–46 about one-third of all goods and services used went to war purposes.

By 1946–47 ‘defence and war’ had dropped back, to take only 4 per cent of all goods and services used, capital formation had recovered to its pre-war proportion of 17 per cent, and consumption, at 79 per cent, was again approaching its pre-war proportion of 82 per cent.

Chart 57 shows these wartime changes in the use of goods and services.

Some of the goods and services needed for war purposes were

released by cutting back other government activities. Normal government and local authority expenditure on goods and services took 13 per cent of the total used in 1938–39 and only 8 per cent in 1943–44.³ The reduction, proportionately, was almost the same as

¹ The percentages used here differ from those given on p. 258. Apart from correction in the national income estimates of some of the accounting inconsistencies which crept into War Expenses Account (such as those already mentioned in this chapter), comparison is now being made with the national usage of goods and services, instead of with the national output of goods and services. **Table 57** in Appendix I will make this distinction clearer. The comparison used on this page and in **Chart 57** and **Table 57** is believed to give the most realistic picture of the effects of reallocations of resources.

² It should be noted that, for national income purposes, the creation of war equipment and installations does not rank as capital formation.

³ Transfers of cash to the private sector (technically known as transfer payments), such as social security monetary benefits are excluded here, because the discussion refers to the actual use of goods and services. These transfers enabled certain groups of people to purchase more goods and services than would otherwise have been possible, but they did not represent direct purchases by the Government. The net effect of this and other influences on private spending is summed up in **Chart 57**.

the reduction in purchases by the people for consumption. In the creation of capital assets, normal government and local authority activities were also cut back, but not so drastically as was private capital formation. ¹

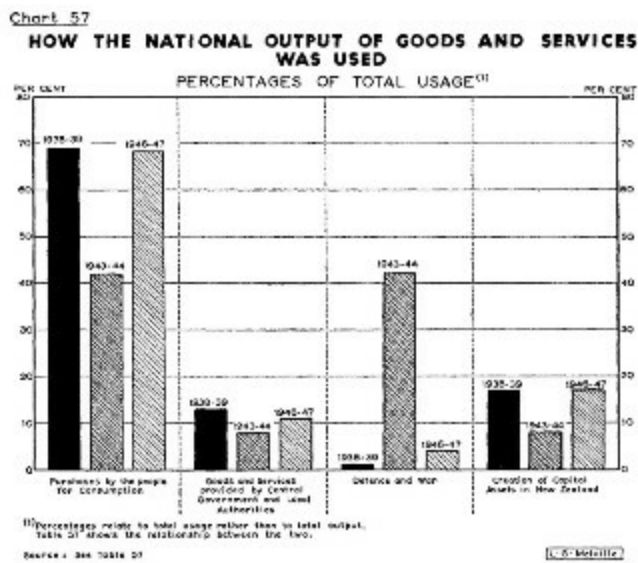


Chart 57

HOW THE NATIONAL OUTPUT OF GOODS AND SERVICES WAS USED PERCENTAGES OF TOTAL USAGE ⁽¹⁾

In studying the allocation of goods and services over the war years, it is relevant that New Zealand did not seek to get command over extra foreign production by overseas borrowing, but depended almost entirely on her own production, except in so far as imports were paid for by her own exports or were supplied under reciprocal arrangements through Lend-Lease and Mutual Aid. Not only was there no extensive borrowing overseas, but the tendency was for overseas assets to be built up from their very low pre-war level. ²

In spite of wartime manpower and supply difficulties, worthwhile increases in output were obtained in farming, in manufacturing and in other industries. But the extra demands of war were of a higher

¹ Reference here is to the use of goods and services for the creation of physical assets rather than to investments of money.

² They had decreased in each of the three pre-war years to average only about £11 million in 1939. It was 1943 before the 1936 average of £38 million was again reached.

order altogether than those production increases. The goods and

services required for war could come only to a limited extent from increased production. Most of them had to be made available by cutting back other uses.

The financial policy to encourage and support the necessary diversion of resources had to be a three-pronged one, involving raising money for war expenditure, cutting back private expenditure which would otherwise compete too fiercely for available goods and services, and taking firm measures to restrain costs and prices. These last measures would be necessary because, in spite of all other restraints, the remaining demands would still press too heavily on available resources. At the same time the private producer and his employees had to be left with sufficient incentive to maintain and increase production.

These were truly formidable requirements, considering the magnitude of war needs.

This chapter set out to deal with the financial cost of war, but, in history, money is meaningless except in terms of its command over contemporary goods and services. So, from the start, the most important thing the finance chapter had to do was to sum up, as far as money values could measure them, the massive diversion of economic resources to war purposes, and the sacrifices of normal economic satisfactions which made it possible. Some impression is given, too, of the effect of financial policy on various money flows, and of the influence of these money flows on normal expenditures on goods and services. But this part of the study is still incomplete. War needs had to be met in real terms rather than in money terms. How could financial policy encourage people to produce more goods and services than before, and yet induce them to take much smaller quantities of goods and services for their own use? Until consideration is given to the handling of problems of restraining costs and prices and of providing adequate production incentives, no study of financial policy can show how and why so much was produced and made available for war purposes. This is the function of the next three chapters.

WAR ECONOMY

CHAPTER 11 – THE QUEST FOR FINANCIAL STABILITY

CHAPTER 11

The Quest for Financial Stability

Pre-war Price Control

ONE of the very first economic measures of the war was a price regulation designed to prevent profiteering;¹ and extensive controls over prices were to remain a feature of the war economy. However, price control was certainly not new. Price rises had been causing concern before the war, and the Government had found it necessary to take restraining action.

Retail prices had recovered steadily after 1933, when they had reached their lowest point in the depression. In 1936 a Prevention of Profiteering Act had been passed, but at this stage prices, though rising, were still 14 per cent below pre-depression levels. The Act was in the main a party policy measure of the new Labour Government. Wise wrote,² 'In 1936, following upon the implementing of its policy of raising wages, the Government considered it necessary to strengthen the existing price control legislation so as to ensure, as far as possible, that benefit of higher wages was not offset by rises in prices. Accordingly the Prevention of Profiteering Act was passed in that year.' This Act made it an offence to sell goods at a price which exceeded a defined basic price by an unreasonable amount. The Act was not fully effective. In specific cases it was difficult to prove that prices had increased by an unreasonable amount.

Prices continued to rise about 4 per cent a year, on average, and by 1939 they were again approaching pre-depression levels. The rate of increase showed no signs of losing momentum, and in June 1939 the Government, by the Price Investigation Regulations,³ provided for control of prices by a **Price Investigation Tribunal**. The regulations

¹ The Price Stabilisation Emergency Regulations 1939, issued 1 September 1939.

² **H. L. Wise, *Wartime Price Control in New Zealand*, p. 12.**

³ **Made on 2 June 1939 under the Board of Trade Act 1919.**

stipulated that goods should not be sold at a higher price than they were offered for on 2 June 1939, unless prior notice had been given to the Tribunal. Reasons for charging higher prices had to be shown.

These regulations did not apply to all goods, but to a fairly comprehensive schedule which included any article of food for human consumption and quite a wide range of other goods and services.

The Tribunal in practice accepted increases in costs of materials from overseas, increased wage rates, and so on, as reasons for increasing prices, but there were occasions when it considered the margin of profit already being obtained was sufficient to allow such increases to be absorbed. The general effect of these regulations was that, for a wide range of goods and services, rises in prices had to be justified if challenged.

By this time the Government already had power under various Acts to fix the prices of a number of items, including rail and road transport, wheat, flour, bread, butter, cheese, tropical fruits and motor spirits. ¹

¹ ***New Zealand Official Yearbook*, 1941, p. 697.**

Initial Wartime Steps to Stabilise Prices

At the outbreak of war, an attempt was made to stabilise prices of all goods and services. Regulations made on 1 September 1939 provided that prices then ruling were not to be exceeded without a specific authorisation from the Minister of Industries and Commerce. ² These new and more comprehensive price stabilisation regulations also made provisions against hoarding.

The necessity for exceptions to be authorised by the Minister of Industries and Commerce soon made administration of the regulations too cumbersome. In December 1939 the Minister's powers were delegated to the **Price Tribunal**,³ with a stipulation that applications to increase prices should be dealt with in accordance with government policy, which was:

- (Replacement costs should not be allowed. That is, rises in prices a) taking place after stocks were purchased were ignored, even though traders would have to replenish stocks at the higher prices.⁴
- (Prices might be increased to the extent of increased costs, or less if b) the margin of profit was high enough to absorb all or part of the increase.

The effect of the second stipulation was to allow increased costs to be added to prices, but not any profit margin on the increased costs. Actually a provision was soon made to allow for exceptions in cases of hardship, but this new provision was used only sparingly. The rule against replacement costs was also modified in some cases, usually by taking an average of costs of old and new stocks.

As well as considering applications to increase prices, the **Price Tribunal** was required to survey prices being charged for goods and services, to issue Price Orders, and to consider complaints from the public and reports from its inspectors. In appropriate cases it could initiate proceedings in the courts.

In spite of the apparent rigidity of this attempt at stabilisation, prices continued to rise. By the March quarter of 1940 they were nearly 2 per cent above September 1939 and still rising. A contributing influence was the rapid upward movement in the cost of imported goods.

1

² The Price Stabilisation Emergency Regulations, issued following a Proclamation of Emergency under the Public Safety Conservation Act 1932.

³ By the Control of Prices Emergency Regulations, which changed the name of the Tribunal from the **Price Investigation Tribunal** to the **Price Tribunal**.

⁴ It was argued that to allow replacement costs would give traders windfall profits, which was not justified unless there were likely to be later price reductions. There is an alternative statement of these principles on p. 303.

¹ In this six months prices of imported items in the Wholesale Prices Index increased by 10·8 per cent.

The First General Wage Order, August 1940

With as yet no really effective restraint on rises in the cost of living, it was to be expected that wage earners would want their real rates of earnings to be maintained. Following precedent established in World War I, and again in the depression of the 1930s, emergency regulations had been prepared to give the Court of Arbitration power to amend award wage rates by general orders at intervals of not less than six months. The Regulations ² were approved in Cabinet in May 1940. They required the Court to take into account trading conditions, the cost of living, and all other conditions deemed to be relevant.

In the June quarter of 1940, retail prices rose a further 1 1/3 per cent and were then 3 1/3 per cent above September 1939 and over 5 per cent above March 1939.

The first General Order of the Court of Arbitration was made and took effect in August 1940. It granted to all workers who were subject to the Court's jurisdiction an increase of 5 per cent on their wage rates.

While the 5 per cent wage increase was justified by past price increases, it was unlikely to end the upward movement, and in fact it became another influence tending, by pushing up costs and prices, to

defeat the stabilisation attempt.

Despite all attempts to hold prices, they continued to rise. Pressure came from a variety of directions. An interesting illustration is found in the experiences of the Director of Housing. In a minute of 26 August 1940 ¹ he reported to his Minister that rises in the cost of state houses were becoming more evident, due to (a) increased costs of materials on account of war conditions, scarcity of stocks, extra freight charges, and insurances, (b) an additional 5 per cent sales tax imposed in June 1940, and (c) mounting costs resulting from a 5 per cent wage increase effective from August 1940. The Director stated that the cost of a house unit of 1000 square feet had gone up by £97 since March 1940, representing an increase of from 21s. to 22s. 11d. per square foot, or over 9 per cent.

In varying degrees, costs of consumer goods and services were affected by similar upward influences. Even with the **Price Tribunal** keeping control over some profit margins, cost changes made further price increases inevitable.

² The initial legislative step in the control of wages and remuneration was the gazetting of the Rates of Wages Emergency Regulations 1940. The 1940 regulations provided that the Arbitration Court from time to time, on application, might amend by general order the provisions of all awards and industrial agreements.

¹ War History narrative No. 24, p. 7.

The Economic Stabilisation Conference, September 1940

The substantial initial rises in retail prices, and the resulting general order increasing wages by 5 per cent, gave wartime stabilisation a very poor start. Moreover, import prices were still rising fast, and it was becoming increasingly apparent that restraint on profit margins would

not prevent prices from pushing up wages, and wages from pushing up prices. This sort of spiralling now seemed inevitable, even had it not been boosted by the rising cost of imports and by increasing shortages of materials and services.

The tendency for prices and wages to move upwards was raising the cost of war to the Government and was emphasising the risk that its increasing war expenditures might disrupt the economy by creating runaway inflation. With war taking an increasing share, the supply of goods and services was not sufficient to meet everyone's demands. Unless urgent steps were taken, competition for scarce resources would certainly accelerate cost and price rises.

In September 1940 the Government convened the Economic Stabilisation Conference to consider the possibility of stabilising costs, wages and prices.

The Conference, which was widely representative of various economic groups, was given comprehensive instructions. It was 'To survey the general economic position of the country under war conditions in order to consider the possibility of stabilising costs, prices, and wages, and to discuss expanding production so that the strain of war expenditure may be successfully borne and the standard of living be maintained as far as possible.'

At its first meeting, the Conference set up a working committee of seven employers' representatives and seven employees' representatives which, under the chairmanship of Mr A. T. Donnelly, ¹ received statements and examined twenty-three witnesses. A considerable volume of evidence was studied. The committee's findings were accepted unanimously by the Conference and embodied in a report, made in October 1940, containing a series of recommendations to the Government. ² Of these, the most important was Recommendation No. 6, which stated:

'The Conference is agreed that it is not possible to stabilise money

wages unless essential commodities are available at prices fixed for the same period as money wages. It therefore recommends that, in addition to wages, salaries, and rents, the prices of the following categories of essential commodities and services be stabilised:—

Essential foodstuffs.

Essential standard articles of clothing, footwear and household necessities.

Public services, fuel and light.

In making this recommendation the members of the Conference are fully aware that it is not practicable to stabilise the prices of commodities or raw materials imported from overseas. The Conference, moreover, agrees that in certain circumstances, such as short supply or increased prices, the consumption of some imported goods may have to be reduced by all, or other commodities used instead.

‘The Conference strongly recommends that every effort be made to ensure that the goods value of the pound will remain constant, as otherwise all attempts at stabilisation must fail.’

In summing up the Conference said:

‘The recommendations of the Conference are designed to achieve two main results:—

The first is to stabilise prices, wages and costs so that the cost of the war is not thrown unfairly on one group to the benefit of another. The second is to increase all kinds of production and the efficiency of every type of service which will help, however indirectly, the national drive.’

Meantime retail prices were still rising. By the June quarter of 1941 they had climbed to just over 4 per cent above June 1940, which had been the latest available figure when the August 1940 general wage order was made.

¹ Chairman of Directors of the Bank of New Zealand.

² Report of the Economic Stabilisation Conference, 1940, p. 10.

Government Action in August and September 1941

The futility of any attempt at stabilisation which was not fully comprehensive was becoming increasingly obvious. But the carefully reasoned and deliberately emphasised statement by the Economic Stabilisation Conference, in October 1940, that the first objective was to stabilise 'prices, wages and costs', did not yet result in really comprehensive government action.

In August 1941 part of the recommendations of the Conference were put into effect, when the prices of 38 essential items were stabilised as from 1 September 1941. They comprised 17 foodstuffs, 16 items of New Zealand made clothing and footwear, tram fares, electric light, gas, coal, and coke. ¹ The price of each individual item was to be held, first through ordinary price control methods, including downward pressure on costs and squeezing of margins, and then, if necessary, by the use of subsidies. On 1 September 1941 prices of a number of the food items were still at their pre-war level, where they had been held by government controls, assisted in some cases by subsidies, such as those on sugar and wheat.

This new government action was much too narrow in its scope to provide a firm basis for stabilisation, a fact which the Government recognised by setting up an **Economic Stabilisation Committee**, in September 1941, to work out details of a comprehensive plan.

To give the Economic Stabilisation Conference its proper place in the struggle for stability, it should be recalled that this Conference unanimously urged the Government to stabilise 'prices, wages and costs so that the cost of the war is not thrown unfairly on one group to the benefit of another.' It was in furtherance of this aim that the

Government set up the **Economic Stabilisation Committee**, from whose deliberations was to emerge ultimately a successful stabilisation scheme.

¹ The full list was:

Foodstuffs: Meat, flour, milk, sugar, bacon, cheese, honey, bread, eggs, butter, coffee, condensed milk, tea, rolled oats, oatmeal, baking powder, salt.

New Zealand made clothing and footwear: Men's, women's, boys', and girls' shoes (New Zealand leather in each case), men's all wool underwear, women's woollen underwear, boys' all wool underwear, boys' all wool jerseys, girls' all wool underwear, men's woollen socks, boys' school hose, woollen piece goods, knitting wools, blankets, suitings (from New Zealand wools), shoe repairs.

Public services, fuel and light: Tram fares, electric light, gas, coal, and coke.

The Economic Stabilisation Committee, September 1941

The **Economic Stabilisation Committee**, set up in September 1941, consisted of the Minister of Finance, the Minister of Industries and Commerce, the acting Chairman of the Economic Stabilisation Conference, and five representatives of employers and employees. The Committee was to advise the Government on matters relating to prices and incomes, and to work out details of a comprehensive plan for promoting the economic stability of the country.

To have any hope of success, the plan had to be comprehensive and had to be worked out in detail before any attempt was made to put it into operation. It was no use trying to hold prices stable if wages were not held, nor wages stable if prices were not held. Neither prices nor wages could be kept stable if other costs continued to rise. Moreover, with reduced importing, the gap between money incomes and the flow of goods available for civilian consumption was steadily increasing, making price control difficult and giving an impetus to black marketing.

The problem was to plan a stabilisation framework which would be workable in detail, and acceptable, both in principle and in its application, by the various sections of the community. The task was bristling with difficulties. The Committee settled down to a long, hard job.

By the beginning of 1942 some of the requirements were beginning to emerge and, in preparation for the more comprehensive stabilisation scheme, an **Index Committee** was set up in January to prepare a new price index suitable for war conditions.

Meantime, in November a workers' application had been taken to the Arbitration Court for a further General Order increasing wages.¹ To the workers, the apparently inexorable rise quarter by quarter in the Retail Prices Index threatened a substantial loss in purchasing power if they did not take steps to have their pay rates increased. But the Arbitration Court, in December 1941, took the unusual step of rejecting the workers' application.

The Court must have been considerably influenced by the risks of inflation under war conditions, for it had before it price and wage index numbers which showed that the effects of its August 1940 general order in restoring the purchasing power of wage rates had already been almost cancelled out by subsequent price increases. This evidence showed that, by the September quarter of 1941, nominal wages had risen on average only $\frac{1}{2}$ per cent above the new rates fixed by the 1940 order, but prices had risen almost 5 per cent.² The Court referred in its pronouncement to the possibility of further reductions in 'the volume of goods available and able to be consumed in New Zealand.' It may well have felt the need to allow a little extra time to see what results were likely to follow from the Government's measures in August and September 1941, and from the efforts of the **Economic Stabilisation Committee**.

¹ The application was made on 10 October under the Rates of Wages Emergency Regulations 1940.

² The 5 per cent order in 1940, if all salary and wages had been affected, and if the resulting cost increases had been passed exactly into prices, would have generated a price increase of about 1·8 per cent. (Estimate derived from Inter-industry Studies of the Department of Statistics.)

The Second General Wage Order, April 1942

However, between the September and December quarters of 1941, prices rose a further 1 ½ per cent while nominal wages were unchanged. The workers were now worse off than they had been before the 1940 order, and the Court granted a further 5 per cent increase. This order took effect from April 1942, with the then novel provision that it was not to apply to any portion of the workers' remuneration above the limits of £5 a week for adult males, £2 10s. a week for females, and £1 10s. a week for workers under 21 and for apprentices. ¹

The Court, in its pronouncement, noted that there had been a definite acceleration in retail prices since the increase granted in 1940, that the entry of **Japan** into the war in December 1941 had affected the trade and industry of New Zealand 'to an almost unbelievably small extent', and that in England the actual threat of invasion and the cutting of overseas communications did not appear to have prevented wage increases, but had had rather the opposite effect.

These Arbitration Court increases tended to be passed on to salary and wage earners generally, in spite of the fact that many were not subject to the Court's jurisdiction.

Needless to say, the general orders did nothing to stop further price and wage rises. In the year ending in the December quarter of 1942, prices rose a further 4 per cent and wages rose by over 2 per cent more than was granted by the Court's order.

In the 3 ¼ years between the outbreak of war and the introduction of a comprehensive stabilisation plan in December 1942, prices and

award wages had both risen by 14 per cent.

Chart 58 shows price and wage changes in the first 3 1/4 years of war.

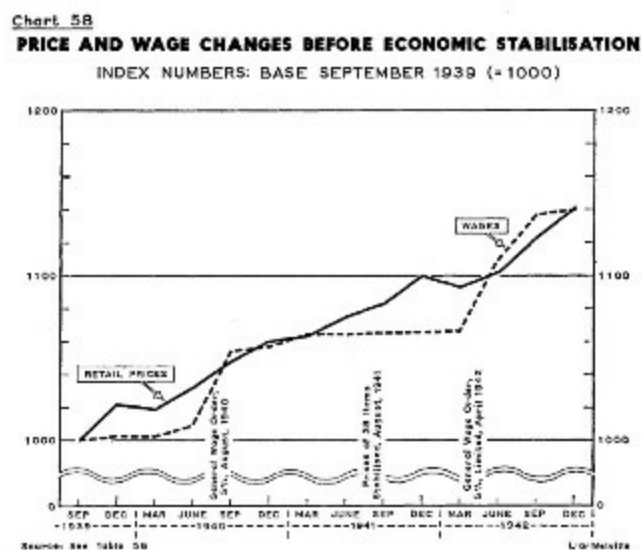


Chart 58
PRICE AND WAGE CHANGES BEFORE ECONOMIC STABILISATION
INDEX NUMBERS: BASE SEPTEMBER 1939 (= 1000)

¹ The power to so restrict the application of an order had been given by an amendment to the Rates of Wages Emergency Regulations on 18 February 1942.

A Comprehensive Stabilisation Scheme—December 1942

The continued upward movement of prices in each quarter of 1942, and the threat of a still wider gap between incomes and available goods and services, gave added urgency to the work of the **Economic Stabilisation Committee**. It had to evolve a stabilisation scheme which would embrace wages, costs and prices; a scheme which would stand firm in spite of inflationary influences, but which would remove many of those influences; and above all, a scheme which would help to ensure equity in the sacrifices which must necessarily be made by all sections of the community.

The scheme could not hope to be successful unless it was acceptable to workers, manufacturers, farmers, traders, and other major economic groups. The comprehensiveness of the plan not only made this wide acceptance vital, but was also a pre-requisite for it. No group of people would willingly accept stabilisation of its income if the prices it had to pay were not stabilised, or if the incomes of other groups were free to move upwards.

On 15 December 1942 the Prime Minister was able to announce the Government's decision to introduce a comprehensive plan of stabilisation, based on the recommendations of the **Economic Stabilisation Committee.**

The essential features of the plan were: ¹

- (a) The list of stabilised commodities and services was increased from the original 38 items or groups to 110. The prices of the whole group of items taken together were to be kept stable at the levels ruling on 15 December 1942. This did not imply the absolute prohibition of a price increase in the case of any individual item, as it was conceivable that in some circumstances an increase might be difficult to prevent. But if some items rose in price, then a compensating adjustment was to be made in the prices of other items to offset the increase. In this way the purchasing power of the pound over a group of essential commodities and services would be kept constant.**
- (b) Wages, salaries, and all other forms of remuneration were to be stabilised at the rates ruling on 15 December 1942. In the case of farm incomes, the prices which the farmers received for all the main farm products would not be increased, and the major items of farm costs would be correspondingly held. Internal farm prices were thus divorced from export prices.**
- (c) Rents of all types of real property, other than those already covered by the Fair Rents Act 1936, and its amendments, were to be stabilised as at 1 September 1942, and rents payable as on that date were not to be increased.**
- (d) Transport rates for goods and passenger services were to be stabilised at the general levels existing on 15 December 1942, and the principal items of costs were to be similarly held.**
- (e) Wages and salaries were to be linked to prices through the medium of a special wartime price index, which was to be established for the**

purpose of recording changes in the general level of prices of a group of essential commodities and services (including rents).

**(In the event of a general order of the Court of Arbitration varying
f) award rates, in accordance with changes in the index, an adjustment was also to be made in the prices paid for farm products.**

**(The Court of Arbitration was to make general orders only where there
g) was an increase or reduction of not less than 5 per cent in the special wartime price index, but initially an order could be made when there was an increase of not less than 2 ½ per cent. Its powers to make other wage changes were severely restricted.**

Most of the provisions of the stabilisation plan were brought into effect by the Economic Stabilisation Emergency Regulations in December 1942. These regulations provided also for a Director of Stabilisation and a Stabilisation Commission.

¹ Based on a statement in Parliamentary Paper H-43, *The New Zealand Wartime Prices Index*, 1944, p. 2.

Stabilised Wages

The wages provisions in the new regulations superseded the 1940 wage regulations ¹ and provided for the stabilisation of rates of wages and remuneration at November 1942 levels. Only if prices moved 2 ½ per cent above their December 1942 level would this stabilisation of wages be varied. The keystone of the whole scheme was the special Wartime Prices Index which was to record price changes. It had been a masterpiece of compromise, narrow enough in its coverage of goods and services to make it capable of being kept steady by price control, subsidies and resistance to cost increases, but at the same time covering a sufficient range of consumer goods and services to be acceptable to the workers ² as a measure of their cost of living, and hence of the level at which it was equitable to stabilise the economy.

The powers of the Court of Arbitration to make general orders were now restricted, and it could make no such order until there was an

initial movement of 2 ½ per cent in the Wartime Prices Index. Thereafter it could not make a further general order until there was a subsequent variation of 5 per cent in the Wartime Prices Index. Thus the Court now had only a restricted power to amend by a single pronouncement the rates of remuneration contained in all awards and industrial agreements. The power of the Court to amend individual awards was also severely restricted. Anomalies might arise, or new occupations have to be provided for, but in such cases the Court had to be guided by the existing stabilised levels of remuneration of other workers. The regulations ³ provided that the Court in making or amending awards or apprenticeship orders, or in approving any industrial agreement, should restrict itself to the correction of anomalies, having regard to the general purpose of the regulations. The effect was that it could restore or preserve a proper relationship with other rates of remuneration, but could not take account of fluctuations in the cost of living. The cost of living was included under the conditions to be taken into account in those carefully prescribed circumstances where the Court was given power to make general orders. In short, the Court was prohibited from

¹ That is, the Economic Stabilisation Emergency Regulations 1942 superseded the Rates of Wages Emergency Regulations 1940.

² And to other groups.

³ Sections 38 and 39.

varying rates prescribed in awards and industrial agreements, except to adjust anomalies or to make a general adjustment where prices had changed by a given minimum percentage.

Under the new regulations, control over actual or ruling wage and salary rates was intended to be just as rigid as the control over award

rates. The regulations even went so far as to provide that ‘In any case where the basic rate of remuneration exceeds the rate of remuneration that was actually paid as on the 15th day of November 1942, the Court of Arbitration, on application made by or on behalf of the Director, may in its discretion, having regard to the general purpose of these regulations, make an order reducing the basic rate of remuneration to a rate not less than the rate so paid as on the said 15th day of November, 1942.’¹

Thus the rates of remuneration in November 1942 became the stabilised wage and salary rates, and were referred to as the basic rates. These basic rates were not to be exceeded without approval, and for this purpose Wages Commissioners were appointed. The Commissioners could approve increases only where there were additional duties or risks, where there were anomalies at the base date, or as a result of a subsequent decision of the Court.²

¹ Section 32, 5. The Director was the Director of Stabilisation.

² Appeals against the decisions of Wages Commissioners could be made to the Court of Arbitration.

The Wartime Prices Index

It has been observed that the Wartime Prices Index was the key to the new comprehensive stabilisation scheme. It fixed the level at which the economy was to be stabilised, and facilitated widespread agreement to the whole scheme, by providing a yardstick to determine the equity of the sacrifices to be made by various sections of the community. Without an acceptable index of consumer prices, with which the whole scheme could be interlocked, the plan could not have been operated successfully, even as an emergency measure in time of war.

In a Parliamentary paper dealing with the Wartime Prices Index,³ the following statement appears:

‘On 15th December, 1942, the Government announced its intention to stabilise the domestic economy of New Zealand by means of a comprehensive plan involving the stabilisation of the prices of a wide range of essential commodities and services, of all rates of remuneration, and of rents and transport charges at the levels then ruling. Fundamental to the plan was the decision that wages and other forms of remuneration should be linked to the prices of essential commodities and services (including rents) entering into the cost of living of the average New Zealand family. This was to be achieved by the preparation of a special wartime price index which would function as a reliable indicator of any variations in the retail prices of such commodities and services taken as a group. Increases or decreases in the general level of prices as measured by the index, when reaching certain stated percentages, would automatically lead to corresponding adjustments in the rates of remuneration.’

As was to be expected, much of the administrative work in operating the new stabilisation scheme would be concentrated on the Wartime Prices Index. The objective would be to use price control, subsidies, and resistance to cost increases to keep price rises, as measured by the Wartime Prices Index, below the 2 ½ per cent increase which would trigger off increases in wages and farm payouts. All cost changes would tend to be assessed in terms of their effects on the Wartime Prices Index.

For this reason, a fuller study of the content of the index is deferred to

Chapter 12, which deals with the administration of the comprehensive economic stabilisation scheme.

³ H-43, *The New Zealand Wartime Prices Index, 1944*, p. 1.

Assessment of the Early Attempts at Stabilisation

The brief discussion in this chapter of the safeguards in the new comprehensive stabilisation scheme has pinpointed some of the reasons why the more piecemeal attempts up to the end of 1942 were unsuccessful. However, one should not underestimate the strong inflationary influences with which stabilisation attempts had to contend in those years.

In the first 3 1/4 years of war the financial strain on the economy was building up rapidly, as distinct from the last 2 3/4 years, to be dealt with in the next chapter, when the strain, though quantitatively much greater, was more constant. ¹ Moreover, the structural changes necessary to switch the economy over to a maximum war effort tended to be concentrated into the earlier period. Both these influences would have made a rigid stabilisation scheme difficult to administer, and perhaps a little out of keeping with the need for rapid economic adjustment.

A significant reference to the problem of readjustment in the early war years is contained in the following extract from Prime Minister Peter Fraser's December 1942 statement introducing the scheme of complete stabilisation: ²

‘Our people are working hard and earning more money, but the supply of things they can buy has not increased. It is growing less because of the inexorable needs of war. Since 1939 the national income has increased by about £50 million, but the supply of goods people can buy has decreased by more than £40 million, that is the gap between the supply of goods and purchasing power is of the order of £100 million.

This excess of purchasing power has begun to swamp our price control....'

Put this into perspective by remembering that in these years national income was under £300 million, and it is not surprising that the stabilisation measures of the early war years were only partially successful. Only a fully comprehensive scheme, such as that introduced at the end of 1942, could have hoped to succeed. Even that might have failed to cope with the situation in the earlier years, when massive portions of New Zealand's productive resources were being diverted to war work and the financial strain of war was doubling and trebling from year to year.

Chart 59 gives an impression of the widening gap between incomes and goods available. The income figures used are not adjusted for taxation. The effect of taxation, loans, and saving in reducing private expenditure is discussed in



Chart 59
AGGREGATE PRIVATE INCOME AND GOODS AVAILABLE

In the context of this ever-widening gap, an economy under rapid structural change, and import prices which rose about 50 per cent between September 1939 and December 1942, the recorded increase of 14 per cent in prices and wages up to December 1942 takes on a new significance. It indicates, in fact, a considerable measure of success in coping with exceptional difficulties.

NOTEWORTHY EVENTS IN THE FIRST THREE YEARS OF WAR

<i>Year Overseas</i>	<i>Military and Political Events in New Zealand</i>	<i>Economic Events in New Zealand</i>
1939 War declared 3 September.	State of Emergency declared, 1 September.	Price Stabilisation Emergency Regulations, issued on 1 September.
	12,000 men had volunteered by 19 September.	Motor spirits rationed from first week of war. List of reserved occupations goes into use.
		Industry controllers appointed in September. Factory

Controller, in September, finds some essential materials in short supply. Income tax rates raised 15 per cent and indirect taxes increased.

Empire Air Training Scheme announced in October.
Battle of River Plate, 13 December.

Primary Production Councils established. Numbers of unemployed and in assisted employment falling. (19,000 at outbreak of war.)

1940 Rationing of bacon, butter, sugar, in United Kingdom.

Armed forces strengths 12,300 by February.

Churchill becomes Prime Minister in May.

Savage dies in March. Fraser becomes Prime Minister.

Waterfront Control Commission set up in April.

Evacuation of Dunkirk, May–June.

Niagara sunk in approaches to Hauraki Gulf in June.

Sales tax doubled in June.

France capitulates in June.

Power to conscript men for military service taken in June.

United Kingdom request in June to switch production from butter to cheese.

Italy enters the war in June.

War Cabinet announced in July.

Co-operative stevedoring first introduced in July. National Security Tax (1s. in £ of income) commences in July.

Battle of Britain, August to October.

First general wage order, in August, raises wages by 5 per cent. First war loan, about £10 million. Economic Stabilisation Conference in

September.

First ballot for military service in October.

Nauru Island installations shelled, by German raider, in November and December. Five phosphate ships sunk.

Armed forces strengths 60,500 by November.

Numbers unemployed or assisted, 13,000 in December.

1941

Restrictions on private building intensified in January.

70,700 men and women serving by February.

Lend-Lease Bill signed by **President Roosevelt in March.**

Clothing rationing in **United Kingdom from June.**

Germany attacks **Russia in June.**

Factory Controller protests, in June, at continued loss of men to the forces.

Second war loan, £10 million.

38 items stabilised in price in August.

****Economic Stabilisation Committee** first meets in September.**

New Zealand receives first shipment of Lend-Lease supplies in October.

82,300 men and women serving by November (more than 50 per cent overseas).

****Pearl Harbour** attack in December**

brings **Japan** and the **United States** into the war.

Repulse and *Prince of Wales* sunk off **Singapore** in December.

1942 Fall of **Singapore** in February. Armed forces strengths reach 125,000 by February.

Loss of **Malaya** and **Netherlands East Indies** cuts off main sources of raw rubber and tin.

Allied merchant shipping losses at their highest in first half of 1942.

Battle of Coral Sea in May.

First thousand-bomber raid on **Germany** in June. 17,000 United States Marines arrive in June.

Distribution of tyres controlled from December.

Numbers unemployed or assisted, 6000 in December.

Manpower direction into industry begins in January.

Commissioner of Defence Construction appointed in March.

Second general wage order, in April, raises wages 5 per cent, with limits.

Third war loan, £15 million.

Weekly hours for defence construction raised to 54 in March (to be reduced to 48 in June).

The first food item, sugar, rationed in April.

Wool price raised 15 per cent in May.

Indirect taxes increased in May.

United States Joint Purchasing Board established in New

**Battle of Midway
Island in June.**

**War Administration
set up in June to be
responsible for the
war effort. (7
Government and 6
Opposition members.)**

Zealand in June
**Prime Minister refers to
very grave stock
position for petrol and
tyres.**

**Defence construction
at peak in June.
Dwelling construction
at its lowest level.
Prohibition of civilian
radio work.**

United Kingdom
**requests switch back
from cheese to butter.
Goods Transport
Control Committees
set up in June.**

**Nauru Island
occupied by
Japanese in August.**

**New Zealand
Government in August**
**rashly promises a
division, to be
available in the
Pacific before the end
of the month.**

**Director of National
Service in July
recommends
postponement of
further balloting for
armed forces.**

**Surcharge on income
tax raised from 15 per
cent to 33 1/3 per cent
and National Security
charge increased by 6d.
in the £.**

**Peak mobilisation
(157,000) in
September (30 per
cent of male labour
force serving).**

**Waikato mines taken
over by the State in
September.**

**Battle of El Alamein
begins 23 October.**

**National Party
members withdraw
from War
Administration in
September.**

**Fifty per cent of
National Income goes
to war purposes in
1942-43.**

November worst month of war for merchant shipping losses.

Eight Army occupies **Tobruk in November.**

Limit of manpower resources reached (November).

Start of shipbuilding operations for **United States forces.
Controller of **Shipbuilding** appointed.
Fourth war loan, £10 million.**

Numbers unemployed or assisted, 2000 in December.

Comprehensive economic stabilisation scheme started in December.

¹ See also Chart 54, p. 256.

² *Dominion*, 16 December 1942.

WAR ECONOMY

PRE-WAR PRICE CONTROL

Pre-war Price Control

ONE of the very first economic measures of the war was a price regulation designed to prevent profiteering; ¹ and extensive controls over prices were to remain a feature of the war economy. However, price control was certainly not new. Price rises had been causing concern before the war, and the Government had found it necessary to take restraining action.

Retail prices had recovered steadily after 1933, when they had reached their lowest point in the depression. In 1936 a Prevention of Profiteering Act had been passed, but at this stage prices, though rising, were still 14 per cent below pre-depression levels. The Act was in the main a party policy measure of the new Labour Government. Wise wrote, ² ‘In 1936, following upon the implementing of its policy of raising wages, the Government considered it necessary to strengthen the existing price control legislation so as to ensure, as far as possible, that benefit of higher wages was not offset by rises in prices. Accordingly the Prevention of Profiteering Act was passed in that year.’ This Act made it an offence to sell goods at a price which exceeded a defined basic price by an unreasonable amount. The Act was not fully effective. In specific cases it was difficult to prove that prices had increased by an unreasonable amount.

Prices continued to rise about 4 per cent a year, on average, and by 1939 they were again approaching pre-depression levels. The rate of increase showed no signs of losing momentum, and in June 1939 the Government, by the Price Investigation Regulations, ³ provided for control of prices by a **Price Investigation Tribunal. The regulations**

¹ The Price Stabilisation Emergency Regulations 1939,

issued 1 September 1939.

² **H. L. Wise**, *Wartime Price Control in New Zealand*, p. 12.

³ Made on 2 June 1939 under the Board of Trade Act 1919.

stipulated that goods should not be sold at a higher price than they were offered for on 2 June 1939, unless prior notice had been given to the Tribunal. Reasons for charging higher prices had to be shown.

These regulations did not apply to all goods, but to a fairly comprehensive schedule which included any article of food for human consumption and quite a wide range of other goods and services.

The Tribunal in practice accepted increases in costs of materials from overseas, increased wage rates, and so on, as reasons for increasing prices, but there were occasions when it considered the margin of profit already being obtained was sufficient to allow such increases to be absorbed. The general effect of these regulations was that, for a wide range of goods and services, rises in prices had to be justified if challenged.

By this time the Government already had power under various Acts to fix the prices of a number of items, including rail and road transport, wheat, flour, bread, butter, cheese, tropical fruits and motor spirits. ¹

¹ *New Zealand Official Yearbook*, 1941, p. 697.

WAR ECONOMY

INITIAL WARTIME STEPS TO STABILISE PRICES

Initial Wartime Steps to Stabilise Prices

At the outbreak of war, an attempt was made to stabilise prices of all goods and services. Regulations made on 1 September 1939 provided that prices then ruling were not to be exceeded without a specific authorisation from the Minister of Industries and Commerce. ² These new and more comprehensive price stabilisation regulations also made provisions against hoarding.

The necessity for exceptions to be authorised by the Minister of Industries and Commerce soon made administration of the regulations too cumbersome. In December 1939 the Minister's powers were delegated to the **Price Tribunal**, ³ with a stipulation that applications to increase prices should be dealt with in accordance with government policy, which was:

- (Replacement costs should not be allowed. That is, rises in prices a) taking place after stocks were purchased were ignored, even though traders would have to replenish stocks at the higher prices. ⁴
- (Prices might be increased to the extent of increased costs, or less if b) the margin of profit was high enough to absorb all or part of the increase.

The effect of the second stipulation was to allow increased costs to be added to prices, but not any profit margin on the increased costs. Actually a provision was soon made to allow for exceptions in cases of hardship, but this new provision was used only sparingly. The rule against replacement costs was also modified in some cases, usually by taking an average of costs of old and new stocks.

As well as considering applications to increase prices, the **Price Tribunal** was required to survey prices being charged for goods and services, to issue Price Orders, and to consider complaints from the

public and reports from its inspectors. In appropriate cases it could initiate proceedings in the courts.

In spite of the apparent rigidity of this attempt at stabilisation, prices continued to rise. By the March quarter of 1940 they were nearly 2 per cent above September 1939 and still rising. A contributing influence was the rapid upward movement in the cost of imported goods.

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² The Price Stabilisation Emergency Regulations, issued following a Proclamation of Emergency under the Public Safety Conservation Act 1932.

³ By the Control of Prices Emergency Regulations, which changed the name of the Tribunal from the **Price Investigation Tribunal** to the **Price Tribunal**.

⁴ It was argued that to allow replacement costs would give traders windfall profits, which was not justified unless there were likely to be later price reductions. There is an alternative statement of these principles on p. 303.

¹ In this six months prices of imported items in the Wholesale Prices Index increased by 10·8 per cent.

WAR ECONOMY

THE FIRST GENERAL WAGE ORDER, AUGUST 1940

The First General Wage Order, August 1940

With as yet no really effective restraint on rises in the cost of living, it was to be expected that wage earners would want their real rates of earnings to be maintained. Following precedent established in World War I, and again in the depression of the 1930s, emergency regulations had been prepared to give the Court of Arbitration power to amend award wage rates by general orders at intervals of not less than six months. The Regulations ² were approved in Cabinet in May 1940. They required the Court to take into account trading conditions, the cost of living, and all other conditions deemed to be relevant.

In the June quarter of 1940, retail prices rose a further 1 1/3 per cent and were then 3 1/3 per cent above September 1939 and over 5 per cent above March 1939.

The first General Order of the Court of Arbitration was made and took effect in August 1940. It granted to all workers who were subject to the Court's jurisdiction an increase of 5 per cent on their wage rates.

While the 5 per cent wage increase was justified by past price increases, it was unlikely to end the upward movement, and in fact it became another influence tending, by pushing up costs and prices, to defeat the stabilisation attempt.

Despite all attempts to hold prices, they continued to rise. Pressure came from a variety of directions. An interesting illustration is found in the experiences of the Director of Housing. In a minute of 26 August 1940 ¹ he reported to his Minister that rises in the cost of state houses were becoming more evident, due to (a) increased costs of materials on account of war conditions, scarcity of stocks, extra freight charges, and insurances, (b) an additional 5 per cent sales tax imposed in June 1940,

and (c) mounting costs resulting from a 5 per cent wage increase effective from August 1940. The Director stated that the cost of a house unit of 1000 square feet had gone up by £97 since March 1940, representing an increase of from 21s. to 22s. 11d. per square foot, or over 9 per cent.

In varying degrees, costs of consumer goods and services were affected by similar upward influences. Even with the **Price Tribunal** keeping control over some profit margins, cost changes made further price increases inevitable.

² The initial legislative step in the control of wages and remuneration was the gazetting of the Rates of Wages Emergency Regulations 1940. The 1940 regulations provided that the Arbitration Court from time to time, on application, might amend by general order the provisions of all awards and industrial agreements.

¹ War History narrative No. 24, p. 7.

WAR ECONOMY

THE ECONOMIC STABILISATION CONFERENCE, SEPTEMBER 1940

The Economic Stabilisation Conference, September 1940

The substantial initial rises in retail prices, and the resulting general order increasing wages by 5 per cent, gave wartime stabilisation a very poor start. Moreover, import prices were still rising fast, and it was becoming increasingly apparent that restraint on profit margins would not prevent prices from pushing up wages, and wages from pushing up prices. This sort of spiralling now seemed inevitable, even had it not been boosted by the rising cost of imports and by increasing shortages of materials and services.

The tendency for prices and wages to move upwards was raising the cost of war to the Government and was emphasising the risk that its increasing war expenditures might disrupt the economy by creating runaway inflation. With war taking an increasing share, the supply of goods and services was not sufficient to meet everyone's demands. Unless urgent steps were taken, competition for scarce resources would certainly accelerate cost and price rises.

In September 1940 the Government convened the Economic Stabilisation Conference to consider the possibility of stabilising costs, wages and prices.

The Conference, which was widely representative of various economic groups, was given comprehensive instructions. It was 'To survey the general economic position of the country under war conditions in order to consider the possibility of stabilising costs, prices, and wages, and to discuss expanding production so that the strain of war expenditure may be successfully borne and the standard of living be maintained as far as possible.'

At its first meeting, the Conference set up a working committee of

seven employers' representatives and seven employees' representatives which, under the chairmanship of Mr A. T. Donnelly, ¹ received statements and examined twenty-three witnesses. A considerable volume of evidence was studied. The committee's findings were accepted unanimously by the Conference and embodied in a report, made in October 1940, containing a series of recommendations to the Government. ² Of these, the most important was Recommendation No. 6, which stated:

'The Conference is agreed that it is not possible to stabilise money wages unless essential commodities are available at prices fixed for the same period as money wages. It therefore recommends that, in addition to wages, salaries, and rents, the prices of the following categories of essential commodities and services be stabilised:—

Essential foodstuffs.

Essential standard articles of clothing, footwear and household necessities.

Public services, fuel and light.

In making this recommendation the members of the Conference are fully aware that it is not practicable to stabilise the prices of commodities or raw materials imported from overseas. The Conference, moreover, agrees that in certain circumstances, such as short supply or increased prices, the consumption of some imported goods may have to be reduced by all, or other commodities used instead.

'The Conference strongly recommends that every effort be made to ensure that the goods value of the pound will remain constant, as otherwise all attempts at stabilisation must fail.'

In summing up the Conference said:

'The recommendations of the Conference are designed to achieve two main results:—

The first is to stabilise prices, wages and costs so that the cost of the war is not thrown unfairly on one group to the benefit of another. The second is to increase all kinds of production and the efficiency of every type of service which will help, however indirectly, the national drive.'

Meantime retail prices were still rising. By the June quarter of 1941 they had climbed to just over 4 per cent above June 1940, which had been the latest available figure when the August 1940 general wage order was made.

¹ Chairman of Directors of the Bank of New Zealand.

² Report of the Economic Stabilisation Conference, 1940, p. 10.

WAR ECONOMY

GOVERNMENT ACTION IN AUGUST AND SEPTEMBER 1941

Government Action in August and September 1941

The futility of any attempt at stabilisation which was not fully comprehensive was becoming increasingly obvious. But the carefully reasoned and deliberately emphasised statement by the Economic Stabilisation Conference, in October 1940, that the first objective was to stabilise 'prices, wages and costs', did not yet result in really comprehensive government action.

In August 1941 part of the recommendations of the Conference were put into effect, when the prices of 38 essential items were stabilised as from 1 September 1941. They comprised 17 foodstuffs, 16 items of New Zealand made clothing and footwear, tram fares, electric light, gas, coal, and coke. ¹ The price of each individual item was to be held, first through ordinary price control methods, including downward pressure on costs and squeezing of margins, and then, if necessary, by the use of subsidies. On 1 September 1941 prices of a number of the food items were still at their pre-war level, where they had been held by government controls, assisted in some cases by subsidies, such as those on sugar and wheat.

This new government action was much too narrow in its scope to provide a firm basis for stabilisation, a fact which the Government recognised by setting up an **Economic Stabilisation Committee**, in September 1941, to work out details of a comprehensive plan.

To give the Economic Stabilisation Conference its proper place in the struggle for stability, it should be recalled that this Conference unanimously urged the Government to stabilise 'prices, wages and costs so that the cost of the war is not thrown unfairly on one group to the benefit of another.' It was in furtherance of this aim that the Government set up the **Economic Stabilisation Committee**, from whose

deliberations was to emerge ultimately a successful stabilisation scheme.

¹ The full list was:

Foodstuffs: Meat, flour, milk, sugar, bacon, cheese, honey, bread, eggs, butter, coffee, condensed milk, tea, rolled oats, oatmeal, baking powder, salt.

New Zealand made clothing and footwear: Men's, women's, boys', and girls' shoes (New Zealand leather in each case), men's all wool underwear, women's woollen underwear, boys' all wool underwear, boys' all wool jerseys, girls' all wool underwear, men's woollen socks, boys' school hose, woollen piece goods, knitting wools, blankets, suitings (from New Zealand wools), shoe repairs.

Public services, fuel and light: Tram fares, electric light, gas, coal, and coke.

WAR ECONOMY

THE ECONOMIC STABILISATION COMMITTEE, SEPTEMBER 1941

The Economic Stabilisation Committee, September 1941

The Economic Stabilisation Committee, set up in September 1941, consisted of the Minister of Finance, the Minister of Industries and Commerce, the acting Chairman of the Economic Stabilisation Conference, and five representatives of employers and employees. The Committee was to advise the Government on matters relating to prices and incomes, and to work out details of a comprehensive plan for promoting the economic stability of the country.

To have any hope of success, the plan had to be comprehensive and had to be worked out in detail before any attempt was made to put it into operation. It was no use trying to hold prices stable if wages were not held, nor wages stable if prices were not held. Neither prices nor wages could be kept stable if other costs continued to rise. Moreover, with reduced importing, the gap between money incomes and the flow of goods available for civilian consumption was steadily increasing, making price control difficult and giving an impetus to black marketing.

The problem was to plan a stabilisation framework which would be workable in detail, and acceptable, both in principle and in its application, by the various sections of the community. The task was bristling with difficulties. The Committee settled down to a long, hard job.

By the beginning of 1942 some of the requirements were beginning to emerge and, in preparation for the more comprehensive stabilisation scheme, an **Index Committee was set up in January to prepare a new price index suitable for war conditions.**

Meantime, in November a workers' application had been taken to the Arbitration Court for a further General Order increasing wages. ¹ To the

workers, the apparently inexorable rise quarter by quarter in the Retail Prices Index threatened a substantial loss in purchasing power if they did not take steps to have their pay rates increased. But the Arbitration Court, in December 1941, took the unusual step of rejecting the workers' application.

The Court must have been considerably influenced by the risks of inflation under war conditions, for it had before it price and wage index numbers which showed that the effects of its August 1940 general order in restoring the purchasing power of wage rates had already been almost cancelled out by subsequent price increases. This evidence showed that, by the September quarter of 1941, nominal wages had risen on average only $\frac{1}{2}$ per cent above the new rates fixed by the 1940 order, but prices had risen almost 5 per cent.² The Court referred in its pronouncement to the possibility of further reductions in 'the volume of goods available and able to be consumed in New Zealand.' It may well have felt the need to allow a little extra time to see what results were likely to follow from the Government's measures in August and September 1941, and from the efforts of the **Economic Stabilisation Committee**.

¹ The application was made on 10 October under the Rates of Wages Emergency Regulations 1940.

² The 5 per cent order in 1940, if all salary and wages had been affected, and if the resulting cost increases had been passed exactly into prices, would have generated a price increase of about 1·8 per cent. (Estimate derived from Inter-industry Studies of the Department of Statistics.)

WAR ECONOMY

THE SECOND GENERAL WAGE ORDER, APRIL 1942

The Second General Wage Order, April 1942

However, between the September and December quarters of 1941, prices rose a further 1 ½ per cent while nominal wages were unchanged. The workers were now worse off than they had been before the 1940 order, and the Court granted a further 5 per cent increase. This order took effect from April 1942, with the then novel provision that it was not to apply to any portion of the workers' remuneration above the limits of £5 a week for adult males, £2 10s. a week for females, and £1 10s. a week for workers under 21 and for apprentices. ¹

The Court, in its pronouncement, noted that there had been a definite acceleration in retail prices since the increase granted in 1940, that the entry of **Japan** into the war in December 1941 had affected the trade and industry of New Zealand 'to an almost unbelievably small extent', and that in England the actual threat of invasion and the cutting of overseas communications did not appear to have prevented wage increases, but had had rather the opposite effect.

These Arbitration Court increases tended to be passed on to salary and wage earners generally, in spite of the fact that many were not subject to the Court's jurisdiction.

Needless to say, the general orders did nothing to stop further price and wage rises. In the year ending in the December quarter of 1942, prices rose a further 4 per cent and wages rose by over 2 per cent more than was granted by the Court's order.

In the 3 ¼ years between the outbreak of war and the introduction of a comprehensive stabilisation plan in December 1942, prices and award wages had both risen by 14 per cent.

Chart 58 shows price and wage changes in the first 3 ¼ years of

war.

Chart 58

PRICE AND WAGE CHANGES BEFORE ECONOMIC STABILISATION

INDEX NUMBERS: BASE SEPTEMBER 1939 (= 1000)

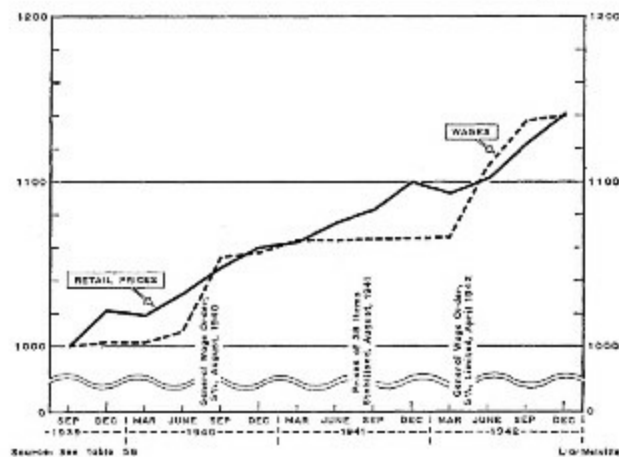


Chart 58

PRICE AND WAGE CHANGES BEFORE ECONOMIC STABILISATION

INDEX NUMBERS: BASE SEPTEMBER 1939 (= 1000)

¹ The power to so restrict the application of an order had been given by an amendment to the Rates of Wages Emergency Regulations on 18 February 1942.

WAR ECONOMY

A COMPREHENSIVE STABILISATION SCHEME—DECEMBER 1942

A Comprehensive Stabilisation Scheme—December 1942

The continued upward movement of prices in each quarter of 1942, and the threat of a still wider gap between incomes and available goods and services, gave added urgency to the work of the **Economic Stabilisation Committee**. It had to evolve a stabilisation scheme which would embrace wages, costs and prices; a scheme which would stand firm in spite of inflationary influences, but which would remove many of those influences; and above all, a scheme which would help to ensure equity in the sacrifices which must necessarily be made by all sections of the community.

The scheme could not hope to be successful unless it was acceptable to workers, manufacturers, farmers, traders, and other major economic groups. The comprehensiveness of the plan not only made this wide acceptance vital, but was also a pre-requisite for it. No group of people would willingly accept stabilisation of its income if the prices it had to pay were not stabilised, or if the incomes of other groups were free to move upwards.

On 15 December 1942 the Prime Minister was able to announce the Government's decision to introduce a comprehensive plan of stabilisation, based on the recommendations of the **Economic Stabilisation Committee**.

The essential features of the plan were: ¹

(The list of stabilised commodities and services was increased from the a) original 38 items or groups to 110. The prices of the whole group of items taken together were to be kept stable at the levels ruling on 15 December 1942. This did not imply the absolute prohibition of a price increase in the case of any individual item, as it was conceivable that in some circumstances an increase might be difficult to prevent. But

if some items rose in price, then a compensating adjustment was to be made in the prices of other items to offset the increase. In this way the purchasing power of the pound over a group of essential commodities and services would be kept constant.

- (Wages, salaries, and all other forms of remuneration were to be
- b) stabilised at the rates ruling on 15 December 1942. In the case of farm incomes, the prices which the farmers received for all the main farm products would not be increased, and the major items of farm costs would be correspondingly held. Internal farm prices were thus divorced from export prices.
- (Rents of all types of real property, other than those already covered
- c) by the Fair Rents Act 1936, and its amendments, were to be stabilised as at 1 September 1942, and rents payable as on that date were not to be increased.
- (Transport rates for goods and passenger services were to be stabilised
- d) at the general levels existing on 15 December 1942, and the principal items of costs were to be similarly held.
- (Wages and salaries were to be linked to prices through the medium of
- e) a special wartime price index, which was to be established for the purpose of recording changes in the general level of prices of a group of essential commodities and services (including rents).
- (In the event of a general order of the Court of Arbitration varying
- f) award rates, in accordance with changes in the index, an adjustment was also to be made in the prices paid for farm products.
- (The Court of Arbitration was to make general orders only where there
- g) was an increase or reduction of not less than 5 per cent in the special wartime price index, but initially an order could be made when there was an increase of not less than 2 ½ per cent. Its powers to make other wage changes were severely restricted.

Most of the provisions of the stabilisation plan were brought into effect by the Economic Stabilisation Emergency Regulations in December 1942. These regulations provided also for a Director of Stabilisation and a Stabilisation Commission.

¹ Based on a statement in Parliamentary Paper H-43, *The New Zealand Wartime Prices Index*, 1944, p. 2.

WAR ECONOMY

STABILISED WAGES

Stabilised Wages

The wages provisions in the new regulations superseded the 1940 wage regulations ¹ and provided for the stabilisation of rates of wages and remuneration at November 1942 levels. Only if prices moved 2 ½ per cent above their December 1942 level would this stabilisation of wages be varied. The keystone of the whole scheme was the special Wartime Prices Index which was to record price changes. It had been a masterpiece of compromise, narrow enough in its coverage of goods and services to make it capable of being kept steady by price control, subsidies and resistance to cost increases, but at the same time covering a sufficient range of consumer goods and services to be acceptable to the workers ² as a measure of their cost of living, and hence of the level at which it was equitable to stabilise the economy.

The powers of the Court of Arbitration to make general orders were now restricted, and it could make no such order until there was an initial movement of 2 ½ per cent in the Wartime Prices Index. Thereafter it could not make a further general order until there was a subsequent variation of 5 per cent in the Wartime Prices Index. Thus the Court now had only a restricted power to amend by a single pronouncement the rates of remuneration contained in all awards and industrial agreements. The power of the Court to amend individual awards was also severely restricted. Anomalies might arise, or new occupations have to be provided for, but in such cases the Court had to be guided by the existing stabilised levels of remuneration of other workers. The regulations ³ provided that the Court in making or amending awards or apprenticeship orders, or in approving any industrial agreement, should restrict itself to the correction of anomalies, having regard to the general purpose of the regulations. The effect was that it could restore or preserve a proper relationship with

other rates of remuneration, but could not take account of fluctuations in the cost of living. The cost of living was included under the conditions to be taken into account in those carefully prescribed circumstances where the Court was given power to make general orders. In short, the Court was prohibited from

¹ That is, the Economic Stabilisation Emergency Regulations 1942 superseded the Rates of Wages Emergency Regulations 1940.

² And to other groups.

³ Sections 38 and 39.

varying rates prescribed in awards and industrial agreements, except to adjust anomalies or to make a general adjustment where prices had changed by a given minimum percentage.

Under the new regulations, control over actual or ruling wage and salary rates was intended to be just as rigid as the control over award rates. The regulations even went so far as to provide that ‘In any case where the basic rate of remuneration exceeds the rate of remuneration that was actually paid as on the 15th day of November 1942, the Court of Arbitration, on application made by or on behalf of the Director, may in its discretion, having regard to the general purpose of these regulations, make an order reducing the basic rate of remuneration to a rate not less than the rate so paid as on the said 15th day of November, 1942.’¹

Thus the rates of remuneration in November 1942 became the stabilised wage and salary rates, and were referred to as the basic rates. These basic rates were not to be exceeded without approval, and for this purpose Wages Commissioners were appointed. The Commissioners could approve increases only where there were additional duties or risks, where there were anomalies at the base date, or as a result of a subsequent

decision of the Court. ²

¹ Section 32, 5. The Director was the Director of Stabilisation.

² Appeals against the decisions of Wages Commissioners could be made to the Court of Arbitration.

WAR ECONOMY

THE WARTIME PRICES INDEX

The Wartime Prices Index

It has been observed that the Wartime Prices Index was the key to the new comprehensive stabilisation scheme. It fixed the level at which the economy was to be stabilised, and facilitated widespread agreement to the whole scheme, by providing a yardstick to determine the equity of the sacrifices to be made by various sections of the community. Without an acceptable index of consumer prices, with which the whole scheme could be interlocked, the plan could not have been operated successfully, even as an emergency measure in time of war.

In a Parliamentary paper dealing with the Wartime Prices Index,³ the following statement appears:

‘On 15th December, 1942, the Government announced its intention to stabilise the domestic economy of New Zealand by means of a comprehensive plan involving the stabilisation of the prices of a wide range of essential commodities and services, of all rates of remuneration, and of rents and transport charges at the levels then ruling. Fundamental to the plan was the decision that wages and other forms of remuneration should be linked to the prices of essential commodities and services (including rents) entering into the cost of living of the average New Zealand family. This was to be achieved by the preparation of a special wartime price index which would function as a reliable indicator of any variations in the retail prices of such commodities and services taken as a group. Increases or decreases in the general level of prices as measured by the index, when reaching certain stated percentages, would automatically lead to corresponding adjustments in the rates of remuneration.’

As was to be expected, much of the administrative work in operating the new stabilisation scheme would be concentrated on the Wartime

Prices Index. The objective would be to use price control, subsidies, and resistance to cost increases to keep price rises, as measured by the Wartime Prices Index, below the 2 ½ per cent increase which would trigger off increases in wages and farm payouts. All cost changes would tend to be assessed in terms of their effects on the Wartime Prices Index.

For this reason, a fuller study of the content of the index is deferred to

Chapter 12, which deals with the administration of the comprehensive economic stabilisation scheme.

³ H-43, *The New Zealand Wartime Prices Index, 1944*, p. 1.

WAR ECONOMY

ASSESSMENT OF THE EARLY ATTEMPTS AT STABILISATION

Assessment of the Early Attempts at Stabilisation

The brief discussion in this chapter of the safeguards in the new comprehensive stabilisation scheme has pinpointed some of the reasons why the more piecemeal attempts up to the end of 1942 were unsuccessful. However, one should not underestimate the strong inflationary influences with which stabilisation attempts had to contend in those years.

In the first 3 1/4 years of war the financial strain on the economy was building up rapidly, as distinct from the last 2 3/4 years, to be dealt with in the next chapter, when the strain, though quantitatively much greater, was more constant. ¹ Moreover, the structural changes necessary to switch the economy over to a maximum war effort tended to be concentrated into the earlier period. Both these influences would have made a rigid stabilisation scheme difficult to administer, and perhaps a little out of keeping with the need for rapid economic adjustment.

A significant reference to the problem of readjustment in the early war years is contained in the following extract from Prime Minister Peter Fraser's December 1942 statement introducing the scheme of complete stabilisation: ²

‘Our people are working hard and earning more money, but the supply of things they can buy has not increased. It is growing less because of the inexorable needs of war. Since 1939 the national income has increased by about £50 million, but the supply of goods people can buy has decreased by more than £40 million, that is the gap between the supply of goods and purchasing power is of the order of £100 million. This excess of purchasing power has begun to swamp our price control...’

Put this into perspective by remembering that in these years national income was under £300 million, and it is not surprising that the stabilisation measures of the early war years were only partially successful. Only a fully comprehensive scheme, such as that introduced at the end of 1942, could have hoped to succeed. Even that might have failed to cope with the situation in the earlier years, when massive portions of New Zealand's productive resources were being diverted to war work and the financial strain of war was doubling and trebling from year to year.

Chart 59 gives an impression of the widening gap between incomes and goods available. The income figures used are not adjusted for taxation. The effect of taxation, loans, and saving in reducing private expenditure is discussed in



Chart 59
AGGREGATE PRIVATE INCOME AND GOODS AVAILABLE

In the context of this ever-widening gap, an economy under rapid structural change, and import prices which rose about 50 per cent between September 1939 and December 1942, the recorded increase of 14 per cent in prices and wages up to December 1942 takes on a new significance. It indicates, in fact, a considerable measure of success in coping with exceptional difficulties.

NOTEWORTHY EVENTS IN THE FIRST THREE YEARS OF WAR

<i>Year Overseas</i>	<i>Military and Political Events in New Zealand</i>	<i>Economic Events in New Zealand</i>
1939 War declared 3 September.	State of Emergency declared, 1 September.	Price Stabilisation Emergency Regulations, issued on 1 September.
	12,000 men had volunteered by 19 September.	Motor spirits rationed from first week of war. List of reserved occupations goes into use.
		Industry controllers appointed in September. Factory

Controller, in September, finds some essential materials in short supply. Income tax rates raised 15 per cent and indirect taxes increased.

Empire Air Training Scheme announced in October.
Battle of River Plate, 13 December.

Primary Production Councils established. Numbers of unemployed and in assisted employment falling. (19,000 at outbreak of war.)

1940 Rationing of bacon, butter, sugar, in United Kingdom.

Armed forces strengths 12,300 by February.

Churchill becomes Prime Minister in May.

Savage dies in March. Fraser becomes Prime Minister.

Waterfront Control Commission set up in April.

Evacuation of Dunkirk, May–June.

Niagara sunk in approaches to Hauraki Gulf in June.

Sales tax doubled in June.

France capitulates in June.

Power to conscript men for military service taken in June.

United Kingdom request in June to switch production from butter to cheese.

Italy enters the war in June.

War Cabinet announced in July.

Co-operative stevedoring first introduced in July. National Security Tax (1s. in £ of income) commences in July.

Battle of Britain, August to October.

First general wage order, in August, raises wages by 5 per cent. First war loan, about £10 million. Economic Stabilisation Conference in

September.

First ballot for military service in October.

Nauru Island installations shelled, by German raider, in November and December. Five phosphate ships sunk.

Armed forces strengths 60,500 by November.

Numbers unemployed or assisted, 13,000 in December.

1941

Restrictions on private building intensified in January.

70,700 men and women serving by February.

Lend-Lease Bill signed by **President Roosevelt in March.**

Clothing rationing in **United Kingdom from June.**

Germany attacks **Russia in June.**

Factory Controller protests, in June, at continued loss of men to the forces.

Second war loan, £10 million.

38 items stabilised in price in August.

****Economic Stabilisation Committee** first meets in September.**

New Zealand receives first shipment of Lend-Lease supplies in October.

82,300 men and women serving by November (more than 50 per cent overseas).

****Pearl Harbour** attack in December**

brings Japan and the United States into the war.

***Repulse and Prince of Wales* sunk off Singapore in December.**

1942 Fall of Singapore in February. Armed forces strengths reach 125,000 by February.

Loss of Malaya and Netherlands East Indies cuts off main sources of raw rubber and tin.

Allied merchant shipping losses at their highest in first half of 1942.

Battle of Coral Sea in May.

First thousand-bomber raid on Germany in June. 17,000 United States Marines arrive in June.

Distribution of tyres controlled from December.

Numbers unemployed or assisted, 6000 in December.

Manpower direction into industry begins in January.

Commissioner of Defence Construction appointed in March.

Second general wage order, in April, raises wages 5 per cent, with limits.

Third war loan, £15 million.

Weekly hours for defence construction raised to 54 in March (to be reduced to 48 in June).

The first food item, sugar, rationed in April.

Wool price raised 15 per cent in May.

Indirect taxes increased in May.

United States Joint Purchasing Board established in New

**Battle of Midway
Island in June.**

**War Administration
set up in June to be
responsible for the
war effort. (7
Government and 6
Opposition members.)**

Zealand in June
**Prime Minister refers to
very grave stock
position for petrol and
tyres.**

**Defence construction
at peak in June.
Dwelling construction
at its lowest level.
Prohibition of civilian
radio work.**

United Kingdom
**requests switch back
from cheese to butter.
Goods Transport
Control Committees
set up in June.**

**Nauru Island
occupied by
Japanese in August.**

**New Zealand
Government in August**
**rashly promises a
division, to be
available in the
Pacific before the end
of the month.**

**Director of National
Service in July
recommends
postponement of
further balloting for
armed forces.**

**Surcharge on income
tax raised from 15 per
cent to 33 1/3 per cent
and National Security
charge increased by 6d.
in the £.**

**Peak mobilisation
(157,000) in
September (30 per
cent of male labour
force serving).**

**Waikato mines taken
over by the State in
September.**

**Battle of El Alamein
begins 23 October.**

**National Party
members withdraw
from War
Administration in
September.**

**Fifty per cent of
National Income goes
to war purposes in
1942-43.**

November worst month of war for merchant shipping losses.

Eight Army occupies **Tobruk in November.**

Limit of manpower resources reached (November).

Start of shipbuilding operations for **United States forces.
Controller of **Shipbuilding** appointed.
Fourth war loan, £10 million.**

Numbers unemployed or assisted, 2000 in December.

Comprehensive economic stabilisation scheme started in December.

¹ See also Chart 54, p. 256.

² *Dominion*, 16 December 1942.

WAR ECONOMY

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WAR ECONOMY

THE ECONOMIC STABILISATION COMMISSION

The Economic Stabilisation Commission

OUTSTANDING as a wartime economic achievement was the comprehensive economic stabilisation scheme introduced in December 1942.

For the first half of the war, the objective of price policy had been to ensure that cost increases and the rising level of demand did not lead to disproportionate increases in prices. For the second half, policy shifted to preventing cost increases altogether, or, where that was impossible, preventing them from affecting prices. This attempt at detailed stabilisation of the economy was a much more formidable administrative task, but it was one which offered some hope of success if tackled with sufficient determination. This was more than could be said of attempts to stabilise prices alone or even to stabilise prices and wages. Such limited attempts were doomed to failure from the start, because the attempt at stabilisation was undermined by the infiltration of cost increases in items which escaped the net of price and wage control. Sharply rising costs of imported goods, for example, had helped to defeat stabilisation plans in the early war years.

From December 1942 until the end of the war, and for some time after, a new organisation, the **Economic Stabilisation Commission**, became responsible for maintaining New Zealand's economic stability. Set up by the Economic Stabilisation Emergency Regulations 1942, the Commission consisted at first of six members, all of whom had acted on the earlier **Economic Stabilisation Committee**, which had drawn up the detailed stabilisation scheme. ¹

The regulations defined functions as follows:

¹ Mr A. T. Donnelly, CMG (Chairman), Mr F. D. Cornwell, Hon.

‘The Minister ¹ shall be charged with the general function of doing all things that he deems necessary or expedient for the general purpose of these regulations, and in particular for the stabilisation, control, and adjustment of prices of goods and services, rents, other costs, and rates of wages, salaries and other incomes, and for the direction and coordination for the general purpose aforesaid of the activities of all other persons or authorities having any functions in relation to any of those matters.’

‘The principal function of the Commission shall be to make recommendations to the Minister, after inquiry and investigation, in relation to the economic stabilisation of New Zealand and the functions of the Minister under these regulations.’

The Economic Stabilisation Emergency Regulations also set out the plan for a co-ordinated attempt to stabilise costs, wages and prices, and can be regarded as the culmination of a struggle for stability which had gone on over the first three and a quarter years of war. These were three and a quarter years in which prices and wages had both risen by 14 per cent. The struggle to achieve economic stability had been hard-fought, against considerable odds. At the outbreak of war an attempt had been made to stabilise the prices of all commodities and services at the levels ruling on 1 September 1939. Unless costs could be kept fixed, this was an impossible task.

Costs in fact tended to rise, and it had soon become apparent that, without much more powerful controls, any attempt to do more than restrict increases in prices to the actual increases in costs due to war was unrealistic. A policy so confined could act only as a brake on the general upward trend of prices; a trend which was influenced by wartime supply difficulties, by the vast increase in the overall level of demand as a result of the Government's war expenditure, and by unavoidable cost

increases such as the rise in prices of imports. Once any persistent increase in internal prices was allowed, wages could not long be held, and rising wages became yet another cost influence tending to raise prices.

Central to the new stabilisation scheme was the Wartime Prices Index, which was to record price changes in 238 items. Wages were to remain fixed at December 1942 levels for so long as the Wartime Prices Index did not rise by as much as 2 ½ per cent. The fixing of wages in its turn would remove one of the major causes of the cost increases which had given rise to previous

¹ **Hon. D. G. Sullivan**, Minister of Industries and Commerce, became Minister in Charge of Stabilisation.

wartime price increases. If wages and prices could be held, there might at last be some hope of achieving economic stability. But other costs entered into prices, in particular, increases in costs of imported goods which could not be prevented by New Zealand action. These would have to be offset in some way if the scheme was to succeed.

The **Economic Stabilisation Commission** would have to keep guard over all costs entering into prices, with the objective of making sure that the Wartime Prices Index did not rise sufficiently to justify a wage increase.

The first Director of Stabilisation was Mr B. C. Ashwin, ¹ then Secretary to the Treasury. These two posts were separated in 1945, and Mr **L. C. Webb** became director. Writing in 1946, Mr Webb said: ²

‘The **Economic Stabilisation Commission** was created in 1942 as an instrument for carrying out the government's wartime policy of stabilising wages, salaries, farm payouts, commodity prices, and rents at the level of December 15, 1942. The policy depended on coordination of the work of all departments whose activities affected the economic life

of the country.

‘In the brief period of its existence the Commission has passed through many changes. Originally it consisted of six members, with the permanent head of the treasury acting as director of stabilisation. Later its membership was reduced to three: the permanent head of the treasury who acted as chairman; a representative of the employers; and a representative of the trade unions. At present there are five members. Its staff, which for the sake of convenience is a sub-department of the treasury, consists mainly of cost accountants, economists, and research workers.

‘The importance of the part played by the [Economic Stabilisation Commission](#) in the domestic life of New Zealand in the past three years would be hard to exaggerate. Almost every economic issue which has arisen has been referred to it for investigation and report; and the occasions on which the government has acted contrary to its advice have been infrequent. Another function of the Commission has been of great value in easing the pressure on the political executive: it carries out negotiations on prices and payouts with representatives of the farming industries, the manufacturing industries, and other economic interests.’

¹ Later Sir Bernard Ashwin.

² In ‘Politics and Administration’ in the [United Nations](#) publication, *New Zealand* (edited by H. Belshaw), p. 287.

WAR ECONOMY

HOLDING PRICES AND COSTS

Holding Prices and Costs

The new stabilisation scheme was to cover all essential costs and payments. Prices, farm returns and costs, transport charges and operators' costs, wages and rent were all stabilised at their December 1942 levels. To hold these costs and payments required a variety of techniques. Subsidies, standardisation, simplification, zoning, rationalisation, government importation and selling below cost, absorption of part of the costs by traders, and loading nonessential items with the increased costs of essential goods; all these techniques were used.

A decision had been made earlier in December 1942 to stabilise the prices of 110 items of food, clothing, hardware, furniture, stationery and other essential household commodities. ¹ The regimen of the Wartime Prices Index contained 238 items and ranged over a wider field, to include fresh fruits and vegetables and rentals of state and other houses.

While it was intended wherever possible to prevent any rise in the prices of the stabilised items above the basic level of 15 December 1942, the Government did not bind itself to hold every stabilised price. Taken as a whole, the prices of these stabilised commodities and services were to be kept stable. Where an increase in price for a commodity was unavoidable there would be a compensatory fall in the price of some other item. This policy was specifically adopted for the 110 stabilised items, but, if the Wartime Prices Index was to be kept steady, it was apparent that a similar policy would have to be applied to the 238 items in the index. Within a short time the range of stabilised items had been widened accordingly.

The Economic Stabilisation Emergency Regulations had extended the provisions of the Fair Rents Act 1936, and its amendments, so that

all rents, including those of business premises and farms, were stabilised at their level on 1 September 1942.

If confidence could be sustained in the fairness of the Wartime Prices Index, and if the index could be prevented from rising by

¹ **H. L. Wise, a member of the Price Tribunal, wrote in *Wartime Price Control in New Zealand*, p. 28, 'Stabilisation goes further than control inasmuch as it aims not at the control of prices within certain limits, e.g., according to the extent of increases in costs due to the war, but rather at the maintenance of costs and prices at a predetermined level. This implies the absolute prevention of further cost increases above the level ruling at the predetermined date such as could bring about resulting increases in prices, or, alternatively, the meeting of any increases in costs that do take place by such means as will obviate the necessity for any compensating increases in prices. It also involves the determination of standards of quality and in some cases the determination of a standard article, for, although the price of a commodity may remain constant if the quality falls the effect may be just the same on the consumer as if the quality had remained constant and the price had risen.'**

as much as 2 ½ per cent, wage increases could be avoided, so eliminating a major cause of further cost and price rises. Farm payouts, also, were tied to the Wartime Prices Index. Farmers' incomes had to be kept in line if the Stabilisation scheme was to operate fairly between farmers, salary and wage earners and other groups. At the same time, farmers' expenditure covered a variety of goods and services whose costs had, in equity, to be held if prices paid for farm produce were to be stabilised.

When the main stabilisation plan was announced to the country, an indication was given of how farm prices and costs would be adjusted within the new stabilisation framework. Prices for farm products were not to be increased: similarly the major farm costs were to be held. Stabilisation accounts were established for farm products. Any price increase received from sales of farm produce overseas was credited to the

appropriate stabilisation account. Similarly, any subsidy paid to keep the cost of production down to the base level of December 1942 was debited to the appropriate account. General agreement was reached with farmers' organisations about the conditions under which these stabilisation accounts were to operate and the major costs to be held.

The economic stabilisation scheme operated over those years when wartime inflationary pressure was at its height. Price control and subsidy payments were essential features of a comprehensive scheme of economic stabilisation at a time when war expenditures were high and the arrival of consumer goods was restricted. The policies were administered by the **Price Tribunal** and the **Economic Stabilisation Commission**, working together under the same Minister of the Crown.

All consumers were interested in the relationship between income and the prices of goods and services. Most of them looked to the Wartime Prices Index as an indication of price change, but no group of consumers was so directly concerned with this index as the wage earners, whose remuneration was directly tied to it. It was a significant endorsement of the Wartime Prices Index when the **Federation of Labour** unanimously approved the stabilisation scheme.¹ No doubt the presence of Mr **F. P. Walsh**, a leading trade unionist, on the Stabilisation Commission assisted in securing the scheme's acceptance by the workers. Mr Walsh had also been Chairman of the **Index Committee**. He was to become President of the **Federation of Labour** from 1953 until his death in 1963.

¹ See letter on p. 311.

WAR ECONOMY

THE PRICE TRIBUNAL

The Price Tribunal

The more comprehensive stabilisation plan did not alter the constitution of the **Price Tribunal**, though it required very close co-operation between the Tribunal and the Stabilisation Commission. The **Price Tribunal** still worked under the regulations which had been in operation since the outbreak of war, but its hand was strengthened by new regulations, gazetted at the same time as the Stabilisation Regulations, which tightened the control over profiteering and provided more stringent penalties for offences and for black marketing. In administering price control, the Tribunal was guided by the following principles laid down by the Government: ¹

- (Price increases could be approved only to the extent of actual
a) additional costs.
- (Such increases could be applied only to those particular goods which
b) had incurred the extra costs.
- (Where the margin of gross profit formerly made on similar goods
c) appeared to be too high, or where the general position of the trader made it possible, some or all of the extra costs should be absorbed by the trader.

In implementing these principles, the emphasis in the early war years had been on the individual trader or manufacturer. Each application for increased prices had been considered on its merits, and the fact that other manufacturers producing similar goods were allowed to charge higher prices was not admissible as a reason for granting increases. The undesirable effects which this policy had on efficiency ² were soon realised, and an attempt was made to replace price control on the basis of costs plus usual margins, by industry ceiling price control.

Price control by fixing ceilings for an industry had the advantage of giving a direct inducement to greater output to the more efficient units. The competitive element was therefore to some extent restored under

shortage conditions. However, ceilings common to all the firms in an industry could be applied only to goods which were fairly standardised.

Some revealing references to the influence of the new regulations on the **Price Tribunal** were made in an address by its President, **Mr Justice Hunter**³: 'I should add here that under the Economic Stabilisation Emergency Regulations of 15th December 1942, the prices of a wide range of commodities were stabilised. In dealing with the Tribunal's recommendations concerning such commodities, the Minister acts after consultation with the Stabilisation Commission.'

¹ There is an alternative formulation of these principles on p. 279.

² Because low-cost firms would be forced to sell at lower prices than high-cost firms; and all would be able to sell their total output when goods were scarce.

³ In a public lecture on 'The Work and Practice of the **Price Tribunal**', at **Victoria University College** (later Victoria University of **Wellington**) on 11 April 1946. Copy on Department of Statistics file 100/20/43.

By way of illustration, **Mr Justice Hunter** said:

'Again the Tribunal may have to deal with an application, say from the butchers' industry to increase the prices of meat. That is a stabilised line. It is Government policy that the price of meat to the public may not be increased. The Tribunal will hear the applicants and examine their accounts, and, if it is of the opinion that an increase in prices is justified and necessary, it will recommend accordingly to the Stabilisation Commission which, if it agrees, will probably recommend the Government to grant a subsidy to the butchers. No increases of any moment have occurred in the retail price of meat since September 1939 and the butchers' increases in costs have been dealt with by way of

subsidy and at present the butchers are receiving a subsidy of 2/4d. for every pound's worth of coupons.' ¹

It has been observed that prices of 110 items were stabilised from December 1942. The Wartime Prices Index contained 238 items. Stabilisation was extended to virtually all of these items. Summarising the wartime operations of the **Price Tribunal**, **Mr Justice Hunter** said:

‘Now what is the result of all this? As you have seen, no one has been permitted to raise the price of goods or services or combinations of goods and services above the September 1939 price without the approval of the Tribunal. When approval of any increase has been granted, it has been confined to additional costs incurred. About 500 Price Orders have been issued fixing ceiling prices which may be charged by any trader. Most of them are Dominion-wide. About 80% of money received by a grocer is for Price Order lines. They cover apples and pears and the basic vegetables (silver beet, cabbage, swedes, parsnips, carrots, pumpkins, and squash, onions and potatoes), which being perishable, we were assured could not possibly be dealt with by Price Order. ² Price Order No. 1, dealing with second-hand sacks, prices of which were soaring owing to war conditions, was issued on 22nd February, 1940. Since then, this form of control has been greatly developed and some Orders cover hundreds of lines, e.g., all the products of a clothing factory.’

Then, after commenting on the stability of the Wartime Prices Index he said, ‘No increases in any of the items covered by this latter index are permitted without the approval of the Stabilisation Commission.’

¹ The coupons were for rationing purposes. Meat was rationed from March 1944.

² Variations in supply and quality were major problems. The principal new feature of price control in 1943 was the fixation of maximum retail prices for many kinds of vegetables, apples, pears, and certain other fruits; these maxima made full allowance for seasonal variations. (Author's footnote.)

WAR ECONOMY

STABILISATION SUBSIDIES

Stabilisation Subsidies

Subsidies had been paid for various purposes before December 1942. From the beginning of 1943 they became an integral part of the economic stabilisation scheme.

In 1938–39, £500,000 had been paid out in subsidies on wheat and for transport of fertilisers. Total subsidy payments had increased in the war years to £2·2 million by 1941–42. Payments rose to £3·6 million in the financial year 1942–43, which included just over three months of the comprehensive economic stabilisation plan.

Transport of fertilisers had been subsidised for the benefit of farmers for some years and, with the addition of subsidies on the cost of the fertilisers from the 1940–41 financial year, made up two-thirds of all subsidy payments prior to the advent of economic stabilisation.

Subsidies on the production and distribution of coal had made their appearance in 1940–41, ¹ while wheat subsidies had commenced before the war. The nearest approach to a stabilisation subsidy on consumer goods in the first three years of war was the subsidy on sugar, which commenced at £155,000 in 1940–41, rose to £347,000 the following year and was to reach £635,000 in the first year of economic stabilisation.

The following table shows, under broad headings, the stabilisation subsidy payments between 1942–43 and 1945–46:

	STABILISATION SUBSIDIES			
	£ (000)			
	1942–43	1943–44	1944–45	1945–46
Shipping transport and incidental	27	212	452	570
Coal production and distribution	356	513	727	1,168

Primary production ²				
Transport	414	453	481	504
Fertilisers	813	1,298	2,009	2,226
Bags, etc		113	171	171
Stock and poultry foods			43	113
Other	88	132	198	224
Essential clothing and foodstuffs				
Clothing		6	59	301
Dairy produce		11	185	361
Meat				644
Sugar	635	651	1,013	847
Tea	478	92	100	180
Other	158	236	537	703
Wheat	583	458	622	789
Miscellaneous		46	91	99
	<hr/>	<hr/>	<hr/>	<hr/>
Total subsidies, gross ²	3,552	4,221	6,688	8,900

Most of the consumer subsidies are shown in this table under the heading 'Essential clothing and foodstuffs'. £155,000 had been paid out in 1940-41 and £347,000 in 1941-42, the only item being the subsidy on sugar. In 1943-44 payments for sugar, tea and other items under this heading totalled nearly £1.3 million. In the following years the range of items expanded, and by 1945-46 consumer subsidy payments reached over £3 million. Subsidies were paid on flour, bread, sugar, tea, oatmeal, dairy produce, eggs, clothing, and many other consumer goods.

Subsidies aimed at reducing production costs or off-setting rises in import costs became very substantial also, but considerable portions of the farm subsidies were recovered from the farm produce stabilisation accounts. Amounts recovered for years ending in July, were £1.6 million in 1943-44, and £2.5 million in each of the years 1944-45 and 1945-46. These recoveries brought the net cost of all stabilisation subsidies to approximately £3 million in 1943-44, £4 million in 1944-45 and £6 million in 1945-46.

¹ **See also**

Chapter 15.

² From 1943–44 onwards certain of these subsidies were charged to farm industry stabilisation accounts. See p. 331.

² From 1943–44 onwards certain of these subsidies were charged to farm industry stabilisation accounts. See p. 331.

WAR ECONOMY

THE ROLE OF SUBSIDIES¹

*The Role of Subsidies*¹

Stabilisation would not have been possible without fairly extensive use of subsidies to prevent unavoidable cost increases from impinging on prices and finding their way, directly or indirectly, into the Wartime Prices Index.

However, government policy was to restrict their use to a minimum. Before a subsidy was approved in a particular case, a close and searching examination was to be made of the ability of a business to bear further cost increases and of its efficiency in production. Sellers or manufacturers or those providing services might be required to institute economies through standardisation, rationalisation and similar methods, as a condition for receiving assistance. No subsidy would be paid to maintain inefficient units² or merely to maintain profits at their former level.

Subsidies to farmers included payments to hold major farm costs and provide assistance to those who had lost their pre-war markets, particularly orchardists. The wheat subsidy was an example of an incentive payment intended to increase production.

¹ Parts of this discussion are taken from *The New Zealand Economy, 1939–1951*. (Parliamentary Paper B-5, 1951.)

² Criteria of efficiency were not clearly defined, but judgments would be made on the basis of comparisons with other units in the same industry.

The declared purpose of many of the producer subsidies was to offset increased costs which would otherwise have entered into the prices of

essential commodities. While the cost of a subsidy was usually met by the community as a whole, to the same degree as if an original price increase had been permitted,¹ secondary spirals² of an unpredictable amount were avoided. The coal subsidies, for example, were primarily intended to enable coal to be produced and sold at stabilised prices in the face of increased costs and a wartime shortage of imported coal. They not only held down the price of coal to household consumers, but helped to hold costs in the gas industry, dairy factories, meat freezing works, and in the railways. Various transport subsidies similarly limited the spread of increased costs through the community.

Costs at 15 December 1942 were used as a base for decisions on producer subsidies to offset cost increases. However, the full increase in costs above the basic level was not always covered by subsidy. In many cases, a part of the increased cost had to be borne by the industry concerned, either at the source of the increased cost or at some later stage in the distribution of goods and services.

The most important producer subsidies were the coal subsidies and those paid to farmers.

By 1945–46 subsidy payments were equivalent to over 2 ½ per cent of the national income and had become a significant component of the New Zealand pattern of financial transactions. They needed careful consideration in deciding government financial policy. The direct cost of subsidies was partly offset by the fact that, in the absence of subsidies, costs, prices and wages would all have risen more, and government expenditure in many avenues—salaries, works schemes, defence purchases, railways—would have been much greater.

In spite of offsetting savings, subsidy payments were one of the larger transfers of funds from the Government to the private sector of the economy. If not matched by taxation or other revenue, they tended to add to the money level of demand. To subsidise

¹ Being met from general revenue, it was borne by a rather

different group of people from that which would have been affected by the price increase.

² The most common use of the word spiral by economists is to describe a situation where price increases justify a wage increase, which in turn leads to further price increases, then another wage increase, and so on. A variety of other types of spiral can occur, many of them more intricate than this. High profits, for example, or extra investment or new consumption expenditures can initiate spirals. Many spirals move more quickly in potentially inflationary situations, where goods and services generally are tending to be in short supply.

certain goods and services left the community more money to spend on other goods and services, tending to cause price rises in the latter. In fact, this apparently anti-inflationary device had a dangerously inflationary side-effect. ¹ Stabilisation subsidies, like price control, attacked the visible effects of inflation, the levels of costs and prices, rather than the cause of inflation, which was the shortage of goods and services in relation to incomes and expenditure. ² Subsidies might aggravate the cause while countering the effects, and needed to be accompanied by steps to take out of circulation the extra purchasing power they injected. Nevertheless they played an important part in the comprehensive plan to stabilise the economy. If balanced by extra government taxation or internal borrowing, they could be used most effectively in difficult cases to hold down the prices of the more essential goods and services and thus restrain the pressure for increased personal incomes to meet an increased cost of living.

Consumer subsidies, where demand was elastic, could have had a considerable effect on expenditure patterns. In practice most consumer subsidies were on items for which demand was inelastic. ³ All subsidies interfered with the normal working of the price mechanism in the economy. Producer subsidies, by creating false price relationships, could lessen the incentive to get rid of inefficiencies in the subsidised industries and to seek suitable substitute commodities to replace those

which had become too costly. ⁴ Subsidy proposals therefore needed a most critical examination and frequent review. In practice, subsidy payments were made only as a last resort.

In spite of shortcomings in subsidies as a stabilisation expedient, they were an integral part of the comprehensive scheme. To condemn their use in time of war would be to underestimate seriously the importance of stabilisation and the magnitude of the task of achieving it.

¹ Not quite true of cases where the subsidy was used to offset a rise in price of imports. The position here is that extra internal purchasing power was mopped up in paying for the imports. The subsidy payments restored an equivalent amount of purchasing power.

² Recent discussions among economists assess the probability of a 'cost-push', as distinct from a 'demand-pull', inflation. If their views are accepted, one might alter the text to say that the effect of stabilisation subsidies would be to avoid cost-push inflation at the risk of inducing demand-pull inflation, and that, where subsidies are accompanied by sufficient extra taxation or internal borrowing, it might be possible to avoid both types of inflation.

³ Elasticity of demand refers to the degree of response of demand to a given price change, both being expressed as percentage changes.

⁴ It could be argued that, with the degree of price, wage and other controls operating in time of war, the price mechanism could not have worked effectively in any case.

WAR ECONOMY

THE WARTIME PRICES INDEX

The Wartime Prices Index

The economic stabilisation scheme put responsibility for stabilisation into the hands of the **Economic Stabilisation Commission**, strengthened the controls available to restrain price, wage and cost increases, allowed for a rather more widespread use of subsidies to offset those cost increases which could not be avoided, gave the Commission a modest safety margin, and made it clear that stabilisation was now to become a fact as well as an objective. The measure of the Commission's success was to be the Wartime Prices Index. The safety margin was the 2 ½ per cent the index could rise before wages or farm payouts would be allowed to increase.

The **Index Committee**, in outlining problems in the construction of the index, emphasised the need for an expenditure pattern which would take into account the changed availability of goods and services in time of war. It said, ¹ 'If ... the peacetime index continues to be used as an indicator of changes in the wartime cost of living, then misleading and illusory results are likely to be obtained. To do so is to ignore the changes in the quantities and kinds of goods and services actually available, and goods that are rationed or otherwise in short supply would consequently be overweighted in relation to current consumption.'

Equally important, however, was that pricing should extend over a group of items which, while covering all essential requirements for an average family, did not include too many items whose prices would be difficult to hold reasonably stable.

The regimen ² of the new index covered 238 items, which made possible a reasonable representation of consumer expenditure. The previous index, the 1926–30 based Retail Prices Index, contained only 203 items.

In selecting items, the **Index Committee** was guided by the recommendations of the **Economic Stabilisation Conference**. The Committee's report said: ³

‘In determining the regimen the **Index Committee** was guided throughout by the basic principle that the items included should be standard utility articles representing the reasonable requirements of average families with average incomes, although no precise statistical definition of the terms involved was attempted. Only such items were therefore included as could be regarded as coming within the scope of Recommendation No. 6 of the

¹ Parliamentary Paper H-43, 1944, p. 4.

² The regimen of a price index is the list of items to be priced, the units of measurement to be used and the weights expressing each item's relative importance.

³ Parliamentary Paper H-43, 1944, p. 7.

Economic Stabilisation Conference (i.e., essential foodstuffs, essential standard articles of clothing, footwear, and household necessities, public services, fuel, and light and rent).

‘The index thus relates to the essential requirements entering into the cost of living of the average New Zealand household, and is not limited to what is commonly termed the “working class” standard of living. In this connection it may be noted that in New Zealand social stratification does not show the wide cleavages common to older countries, industrialisation is limited, and the dispersion of incomes relatively small, these factors making for a more uniform standard of living than is possible in countries with more complex social and economic structures.’

An innovation in the Wartime Prices Index was the inclusion of

fresh fruits and vegetables in the regimen. This necessitated a careful study of seasonal changes in supply and price of these commodities. A not unrelated new feature of price control in 1943 was the fixing of maximum retail prices for many kinds of vegetables, apples, pears, and certain other fruits; these maxima made allowance for seasonal variations in supply and in prices. ¹

The items included in the Wartime Prices Index are of interest because of the central part the index played in economic stabilisation, and also because, with a few relatively minor additions and exclusions, the prices of the same items were stabilised at their level on 15 December 1942. ² The full list of items in the index is given in [Appendix II](#).

The persistent rise in prices of imported goods, combined with other unavoidable cost increases, and the general shortage of goods, services and labour, made it inevitable that there would have to be extensive use of subsidies to keep retail prices stable. However, the scheme was designed to reduce the need for subsidies where possible. With the experience of the rapid rise in import prices in the first half of the war, the natural tendency was to concentrate the index regimen on locally made goods as far as possible.

The following table shows the group weights of the Wartime Prices Index, that is, it indicates the relative importance given to price changes in each group of items.

The Wartime Prices Index became the only published index of retail prices. The Director of Stabilisation wrote to his Minister on 4 June 1943:

‘With reference to your minute of the 11th instant regarding the publication of the Government Statistician's Retail Prices

¹ A reference by the Chairman of the [Price Tribunal](#) to this extension is given on p. 304.

² The distinction between price control and price stabilisation is outlined on p. 301, note 1.

WARTIME PRICES INDEX	
<i>Group</i>	<i>Weight (per cent)</i>
Food Group	
Groceries	13·0
Dairy produce	10·0
Meat	10·0
Fresh fruits	3·0
Fresh vegetables	3·0
Total	— 39·0
Rent	25·0
Fuel and light	7·0
Clothing, footwear and household drapery	
Clothing and footwear	14·0
Household drapery	1·0
Total	— 15·0
Miscellaneous	
Fares	4·5
Crockery	0·5
Furniture	2·0
Household cleaning	1·5
Ironmongery and hardware	0·5
Papers and school stationery	2·0
Toilet and personal services	1·0
Postages and telegrams	0·5
Tobacco	1·5
Total	— 14·0
Total, All Groups	100·0

Index for January 1943; in view of the fact that the **Federation of Labour** Conference has met and unanimously approved of the Stabilisation scheme it now appears to be neither necessary nor desirable that the above Index figures should be published.

‘It is therefore recommended that publication of the Retail Prices

Index be discontinued from 31 December 1942, but that the Government Statistician continue to compile the index so as to preserve the continuity of the series.’¹

This received the Minister's concurrence, and the Government

¹ Copy on Department of Statistics file 100/20/43.

Statistician, when it was referred to him, wrote ‘Long since in operation.’

WAR ECONOMY

THE INDEX REMAINS STABLE

The Index Remains Stable

For the remainder of the war and for a year or two after the war, the policy of stabilising the price structure, as far as the essential goods and services included in the index were concerned, was pursued very rigidly. As a result it was not until 1947 that the index moved more than 1 per cent above its December 1942 level. ¹

The index had a base equal to 1000 in December 1942. The 2 ½ per cent tolerance before wage increases were permitted would have raised it to 1025. Compared with this, its actual wartime movements were:

1942 December	1000
1943 March	1011
June	1000
September	996
December	1001
1944 March	1005
June	1001
September	1003
December	1004
1945 March	1006
June	1005
September	1001

¹ Except for the very short-term rise and fall between the December 1942 and June 1943 quarters.

WAR ECONOMY

PROBLEMS FOR THE STATISTICIAN

Problems for the Statistician

In assessing this price stabilisation achievement, it must be remembered that stabilisation policy tended to be concentrated on holding the prices of the commodities in the Wartime Prices Index, even to the extent, on occasions, of offloading cost increases in the stabilised items in the index on to related items which were not in the index.² However, it also became part of the stabilisation scheme to try to gear production programmes to ensure a steady supply of the selected standard utility articles at the stabilised prices. Much administrative effort was required to achieve this, and there were considerable difficulties. Needless to say, higher profits could usually be made by producing other lines whose prices were not stabilised, and there was a tendency for production to veer away from the standard lines, resulting, for some items, in recurring shortages of supplies at the stabilised prices.

² See also p. 314.

A statement from an unpublished thesis on the footwear manufacturing industry¹ gives a good impression of the underlying problems as they affected a particular industry:

‘A range of essential commodities was tabulated and, as far as possible, standards of manufacture for these lines were adopted. Included in these commodities were Men's, Women's, Boy's and Girl's shoes made from New Zealand leather. Prices for these lines were stabilised at the prices ruling on the 15th December, 1942. Increases in costs of manufacture were to be absorbed by the manufacturers, or failing this, the tendency was to subsidise costs of manufacture.

‘The method used in the industry was:

- (1) To allow increased costs to be borne by military contracts.**
- (2) To allow higher margins of profit on non-essential lines.**
- (3) Enforcement of quotas for manufacture of essential or so-called “utility” lines.**

‘In effect this method meant military and non-essential lines were subsidising the manufacture of essential lines.

‘While military contracts absorbed a large proportion of the productive capacity this arrangement appeared to work. From 1945 on, the disparity in prices between essential and non-essential lines became more acute. Production of non-essential lines was far more remunerative. This made the plan committee's activities increasingly difficult, by making production quotas hard to achieve.’

In peacetime a statistician publishing a retail price index accepts certain responsibilities with regard to the items he prices. He must make quantity and quality checks on each item, and be satisfied that it is readily obtainable by a prospective purchaser at the quoted price. He must also be satisfied that the price movements in the index items remain reasonably typical of the price movements in related consumer purchases. The special circumstances of war, and the economic stabilisation scheme, might reasonably have been taken to modify these requirements a little. Quantity and quality checks were still needed, but it was generally accepted that the emergency called for some sacrifices by consumers in the range of goods available to them. Of the items in the Wartime Prices Index, it could be said that most remained freely available throughout the war at the stabilised prices. The rest could usually be

¹ E. A. Harris, ‘A survey of the New Zealand footwear manufacturing industry with special reference to conditions in the industry prior to and during the licensing phase 1939–1949’, pp. 94, 95. Copy held by Canterbury University Library.

obtained in reasonable quantities at the stabilised prices, but sometimes the consumer needed to have a little patience when supplies lagged. In keeping with the spirit of the stabilisation scheme, which had been generally accepted, the Government Statistician seems to have been justified in continuing to price the index items and to publish the index without comment.

The most serious threat to the representativeness of the Wartime Prices Index was the practice of offloading cost increases in stabilised items on to unstabilised items. This practice, however, was shortlived, and no doubt the Government Statistician's protests were largely responsible for its demise. The following Hansard reference is significant: ¹

Mr Sheat (Patea): '... It was reported that the **Price Tribunal** had been authorising price increases of certain unstabilised commodities in order to offset no increases in the prices of certain stabilised items. If that practice existed, it was evident that price-fixation was simply a process of camouflage. The practice was certainly undesirable.'

The Hon. Mr D. G. Sullivan: 'There were some instances where that was done, but it has not been the practice recently, for it has been completely abandoned.'

¹ NZPD, Vol. 266, p. 531, 26 September 1944.

WAR ECONOMY

OTHER PRICE CHANGES

Other Price Changes

The success of the stabilisation scheme clearly required holding costs and prices at all points of distribution, not just at retail. Wholesale prices of locally produced goods, which had risen 17 per cent in the first half of the war, rose less than 6 per cent in the second half. Stabilisation of wages and other costs was having its effect.

Imported items continued to create stabilisation difficulties, though their price rise of 11 per cent in the three years following economic stabilisation was at less than a quarter of the rate in the preceding three years. Chart 60 compares price changes between December 1942 and September 1945. In these three years, when wholesale prices of imported goods rose by 10·6 per cent, and of locally produced goods by 2·4 per cent, the Wartime Prices Index rose only 0·1 per cent.² The chart provides a good gauge of the effectiveness of the stabilisation scheme, centring on the Wartime Prices Index.

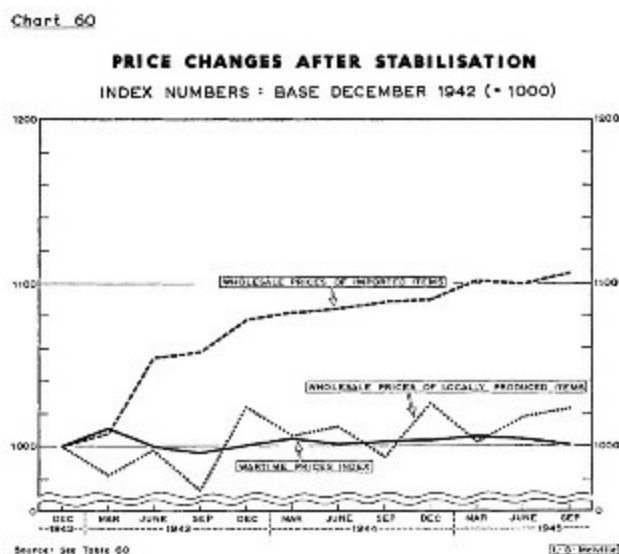


Chart 60

PRICE CHANGES AFTER STABILISATION
INDEX NUMBERS: BASE DECEMBER 1942 (= 1000)

² Imported goods had made up over half the content of the old Retail Prices Index, but the emphasis was deliberately changed in the Wartime Prices Index and the imported content was probably rather less than half. See also [p. 310](#).

WAR ECONOMY

WAGE STABILISATION

Wage Stabilisation

Before the introduction of the Economic Stabilisation Regulations in December 1942, wages legislation in New Zealand had been concerned mainly with establishing minimum wage rates to prevent unreasonably low standards of living. The awards of the Court of Arbitration, which was the principal wage-fixing authority, established minimum rates and conditions of work for the many types of worker coming within its jurisdiction. No attempt had been made to establish maximum rates.

The provision, in May 1940, for the Arbitration Court to make general wage orders, and the two general orders in August 1940 and April 1942, were discussed in

Chapter 11. The general order system protected those workers whose bargaining strength was weakest, but, because it led to wage changes 'across the board' rather than piecemeal, it increased the impact of wage changes on the economy.

It would, however, be unreasonable to blame either wages policy or prices policy for the lack of stability up to December 1942. Wages and retail prices both rose 14 per cent, and, though they certainly interacted on one another, the main contributing influences leading to the increases were the rise of over 50 per cent in import prices and the growing scarcity of goods and services. The purpose of the new economic stabilisation policy was twofold: to gain a respite by holding back for a while the interaction between prices and wages, and to provide more effective institutions to restrict cost increases generally.

When regulations for the stabilisation of wage and salary rates were introduced in December 1942, the machinery of wage regulation had to be adapted to provide not only a 'floor' under wages, but a ceiling also. Awards continued to be issued by the Court of Arbitration in the usual way, but the circumstances in which both the minimum rates established by awards and the actual rates paid could be increased were strictly limited. The Court could not make any general order changing wage rates until the Wartime Prices Index had moved an initial $2\frac{1}{2}$ per cent. Apart from this, it could not increase minimum rates of wages in any award except to adjust anomalies.

The effect of the regulations was to peg rates of remuneration at the levels ruling on 15 December 1942, those levels to be called the 'basic rates'. Remuneration was defined as including, besides salaries and wages, overtime rates, bonuses, allowances, fees, commissions, travelling expenses, directors' fees, and any other emolument. The basic rates related, not to earnings, but to the rates at which those earnings were calculated. They applied to positions held, rather than to persons, so that it was still possible for a person to earn a higher income by changing his position, or by working longer hours.

To deal with applications for increases in wages or salaries above the basic rate, in cases affecting individuals or small groups of employees, three Wages Commissioners were specially appointed under the regulations. Applications had to be made jointly by employer and employee, and approval was to be given only where there were additional duties, responsibilities, or risk, where an anomaly called for adjustment, or where remuneration was abnormally low. Care was taken to appoint as Wages Commissioners only men who would abide by the spirit of the stabilisation scheme and refuse to approve increases unless there were adequate grounds. As this often meant refusing increases which employers and employees had already agreed to, it required a different attitude from that usually taken by Conciliation Commissioners.

The new stabilisation scheme was to apply to all salaries and wages, not just those previously under the jurisdiction of the Court of Arbitration. To cope with the usual arrangements for salary scales in many institutions, it was permissible to pay rates of remuneration above the basic rate in cases where rates were fixed by a scheme of classification approved by the **Economic Stabilisation Commission. By a scheme of classification was meant any salary scale as commonly understood, or a schedule of rates for any position which involved annual rises up to a maximum. In giving its decision on these schemes of classification, the Commission followed the same principles as the Court of Arbitration and the Wages Commissioners.**

The practice whereby the Court of Arbitration, in fixing award rates of wages, took account of changes in the cost of living was a long-standing one, but except in the period 1919–25 had had no statutory basis. The Rates of Wages Emergency Regulations 1940 provided a statutory basis, but did not establish any definite formula linking changes in wage rates to changes in a price index. The Economic Stabilisation Emergency Regulations provided such a formula. The previous Retail Prices Index was no longer published and was replaced by the new Wartime Prices Index, covering the retail prices of a group of essential items considered to provide a minimum standard of living in

wartime. The Government's aim was to keep that index stable, though not necessarily the individual prices within it; but, if the index should move up or down by more than 5 per cent, the Court would automatically issue a general order revising wage rates by a similar percentage. The first increase was to be granted, however, when the index showed a rise of 2 ½ per cent. Apart from this formula, the Court was not to take the cost of living into account when making new awards.

Thus for two and a half years from December 1942, there was a definite formula linking wage rate increases to a price index. As it turned out, it was not until 1947 that the Wartime Prices Index rose the initial 2 ½ per cent necessary to provide the basis for a general order. Meantime the automatic formula linking wage rates with the Wartime Prices Index had been revoked in June 1945. In the two and a half years when there was a statutory provision linking wage increases to price increases, there was no occasion for the Court to apply the provision in making a general order. The Wartime Prices Index showed a maximum increase of just over 1 per cent during this period, and this only temporarily, a fact which provides a good indication of the Stabilisation Commission's achievements.

WAR ECONOMY

DISSATISFACTION IN 1944

Dissatisfaction in 1944

The period from December 1942 to the end of 1944 was one of considerable stability. The Wartime Prices Index showed no significant change, and the index of nominal weekly wage rates rose by less than 2 per cent. Towards the end of 1944, however, it became increasingly clear that a rigid pegging of wage and salary rates could not be maintained indefinitely. For example, in February 1944, an exception was allowed for wages below £5 5s. per week for male and £3 per week for female workers to permit the rates to be raised to those levels. Then, in June 1944, the rules binding the decisions of the Court of Arbitration were revised, and instead of being restricted in its action to anomalies and specific minimum rates, the Court was merely required 'to have regard to the general purpose of these regulations.'¹

There were other signs, too, of increasing flexibility in the operation of the regulations. Difficulties arose out of the spreading of the wage-fixing function. Besides the Arbitration Court, the Wages Commissioners, and the **Economic Stabilisation Commission**, there were several other authorities having jurisdiction over particular groups of wage and salary earners. These included the **Coal Mines Council**, the **Waterfront Control Commission** and the **Emergency Disputes Committees**, all of which had been set up in 1940, and the **Railways Tribunal** which was set up in 1944. In addition, the Government had full jurisdiction over the wages and salaries of state employees other than those in the Railways, while Cabinet fixed by Order in Council the wages of agricultural workers, after agreement had been reached between workers' and employers' representatives. Parliamentary salaries were fixed by act of Parliament.²

During 1944 a number of wage and salary increases or special allowances were granted, for various reasons, by some of the wage

authorities. For example, workers on dairy farms, tobacco farms and orchards were granted increased wages by Order in Council; coalminers and seamen received special allowances; and the salaries and allowances of Members of Parliament were substantially raised in December. ³

However much the increases were justified in individual cases, the fact that some sections of the community appeared to be receiving special favours denied to others caused considerable unrest. A number of industrial disputes resulted, including several major ones. There were increasing threats to the flow of production and trade. One writer, **N. S. Woods**, suggests that the dissatisfaction went deeper. Of the period December 1942 to June 1944 he says: ⁴

‘During these years there was some restiveness amongst the trade unions at these restrictions on wage increases. It was a period of acute labour shortage. (At one point in 1942 approximately one man in every three had been withdrawn from industry for military service.) There was, therefore, the knowledge on the part of workers that on a free labour market they could obtain a scarcity premium on their services. There was the belief that here and there the regulations were being evaded and that some workers subject to them were obtaining substantially higher remuneration. There was a stronger belief that the stabilisation policy as a whole operated more effectively against the workers than against other sections of the community and that farming and business incomes were increasing while workers' incomes remained pegged to a 1942 level. There was also a belief (more strongly voiced later) that the Wartime Prices Index was not recording the full rise in cost of living.’

¹ It was not until May 1947, however, that the Court was authorised in dealing with individual awards, as distinct from general orders, to take the ‘cost of living’ into account.

² Recommendations were made by a Select Committee of the House.

³ Section 24, Part 5, of the Finance Act (No. 3) of 15 December 1944.

⁴ **N. S. Woods**, *Industrial Conciliation and Arbitration in New Zealand*, p. 154.

WAR ECONOMY

WAGES BREAK AWAY IN 1945

Wages Break Away in 1945

For some sections of the workers, the action of Parliament in raising the pay of its members in December 1944 seems to have been the last straw. The following report on 15 January 1945 is typical of many from various parts of New Zealand about that time: ¹

‘A strong protest against the action of the Government and members of the Opposition in increasing their own wages while railway employees and other lower paid workers throughout the country are still waiting increase in their wage rates, was expressed in a resolution passed at a meeting of the Southland Branch of the Engine Drivers', Firemen, and Cleaners' Association today.

“Although the establishment of the Tribunal to investigate railwaymen's wages and conditions was authorised by the Prime Minister in February 1944 nearly twelve months have passed and there is still no decision, in spite of the fact that the Tribunal has been sitting periodically for more than four months,” concluded the resolution.’

Unrest was by no means confined to the **Railways Department**. There was, for example, growing dissatisfaction with wages in dairy factories. A 16 January report on the dairy factory dispute said: ²

‘The centre of negotiations yesterday shifted from **Hamilton** to **Palmerston North** and then to **Wellington**. The discussions culminated in a broadcast statement last night from the Executive

¹ *Evening Post*, Invercargill message.

² *Evening Post*.

of the New Zealand Dairy Workers' Union urging the workers to continue work pending the conference with the Minister of Labour.

'The threat of a strike in the industry first appeared before Christmas when the workers in some of the [Waikato](#) and [North Auckland](#) factories expressed dissatisfaction with the Dairy Factories Award made by the Arbitration Court.'

The report continued:

'In Hamilton on Friday night, over one hundred dairy factory workers of the [Waikato](#) debated the issue for over four hours. The meeting resolved to take direct action, by going on strike, unless a minimum basic wage of £5 10s., a modification of the existing stabilisation order, and a repeal of the second schedule relating to overtime rates were granted; the time limit to be five o'clock last evening.'

Strike action indeed resulted, and on 17 January newspaper reports said: ¹

'The strike of dairy factory workers is not general. Workers at eleven factories owned by the New Zealand Cooperative Dairy Company, including two powdered milk factories and one or two independent factories, were on strike in the [Waikato](#) yesterday. Several factories at [Cambridge](#) joined in today....

'Arrangements have been made to man the striking factories with volunteer labour, including military labour. All the dairy factories in [North Auckland](#) are working pending a conference on Thursday.'

The following day waterside workers were threatening direct action, in protest at the use of 'free' labour to produce butter. ²

On 19 January a basis was found for resumption of work in dairy factories, subject to negotiation of the dispute at a conference of workers and employers organisations; but at midnight of the same day

West Coast railway servants went on strike in protest over delay in the Railways Tribunal's wage decision. Three days later Auckland railway servants decided to strike for the same reason.

These strikes did not last long, but they had their effect. On 13 February the Arbitration Court was given power to adjust general disparities in wage levels. Two days later the Railways Tribunal granted a 3 ½d. per hour increase back-dated to 30 June 1944.

The new regulations for the Arbitration Court meant the end of the more rigid period of economic stabilisation. Stabilisation was to continue, but in a modified form. The Prime Minister's announcement of the change is worth recording at some length. ³

¹ *Evening Post*, Auckland report.

² *Ibid.*, 18 January 1945.

³ *Ibid.*, 13 February 1945.

‘Amendment of the Stabilisation Regulations to enable the Arbitration Court to adjust general disparities in wage levels was announced by the Prime Minister (Mr Fraser) today.

“In their original form the Stabilisation Regulations limited the power of the Arbitration Court in dealing with wages; there being a general barrier against increase except on the ground of strictly-defined anomalies. Since then a number of amendments to the Regulations have made possible the adjustment of wages in a variety of additional circumstances. The most recent of these amendments, No. 4, of June last year, reduced the limitations on the Court's powers in the main to a requirement that the Court should have regard to the economic stability of New Zealand.

“During the last two years, in the adjustment of our economy to the

constantly changing stresses of war, some classes of workers have received increases in wages, others have not. So there has arisen a disturbance of the general equilibrium within the wage structure tending to produce a sense of unfairness and dissatisfaction. Such a lack of balance is contrary to the intention of stabilisation, which has always involved keeping a proper balance between the various classes of workers and a proper relationship between wages and living costs.

“The Stabilisation Regulations are accordingly being amended to enable the Court, in dealing with wages, and incidental to giving consideration to the economic stability of New Zealand, to take into account the disparities which have arisen within the wages structure through some groups receiving increases while others have not received them. The Court is given power to amend existing awards and agreements so as to restore the balance between the different classes of workers. So that it may achieve this, the amendment requires the Court to take into account ‘the desirability of so fixing rates of remuneration as to restore or preserve a proper relationship with the rates of remuneration of other workers or classes of workers.’ The regulations also provide for amendment of the wages portions of the awards, apprenticeship orders, and industrial agreements during their currency.

“Provision is made empowering the Court to issue pronouncements specifying the standard wages for skilled, semi-skilled, and unskilled workers. The Court may exercise this power of its own accord or on application being made to it by any organisation of workers or employers. This will enable the Court for its own purposes, and as a guide to other parties when they come before it on wage matters, to lay down principles, rather than to leave these principles to be deduced from awards as they are issued. Such pronouncements by the Court will also serve as a useful guide in other negotiations on wages.

“Unions are thus enabled to apply to the Arbitration Court for a review of the wages portions of awards, even during their currency, on the grounds of disparity with other workers, using any standard wage pronouncement as a guide. Workers who do not come under the

Arbitration Court will be able, as in the past, to apply for adjustment of wages through the Wages Commissioners, to whom applications are made jointly by employee and employer. The Wages Commissioners are empowered to approve wage increases on the grounds of removing disparities. In doing so they are enabled to take into consideration any standard wage pronouncement which may be made by the Court.

“It is also necessary to consider the position of the farmers. I am not unmindful that these adjustments in the wages structure may affect the position of the primary industries. This is a matter which will have to be very carefully studied and dealt with in the light of the general undertakings given to the primary industries at the time the original stabilisation policy was announced. Needless to say, in any action which is taken, full consideration will be given to the views of the representatives of the industries concerned.

“The announcement of these changes does not in any circumstances mean that the inflationary danger is over. It was sufficiently demonstrated in all countries in 1914–18 and later that the greatest inflationary danger develops in the immediate post-war period. We must be prepared to meet that situation again—a situation in which stabilisation will continue to be our most sure defence on the economic front. Our prosperity in New Zealand is so largely dependent on the sale of our produce overseas that the success of stabilisation is vitally important to our primary industries. How successful we are with stabilisation will widely affect our ability to deal with the difficult problems of the export market.

“Beyond all this there is a further reason why stabilisation must have the continued support of all New Zealanders. The Government, together with the people of New Zealand, is determined that the men returning from the Forces, when re-establishing themselves in civil life, shall not have to do so under conditions of economic disruption. Stabilisation is their protection against these conditions.”

On 17 March 1945 the Arbitration Court made a standard wage

pronouncement, increasing standard rates by 3 ½d. an hour. Primarily this was a recognition by the Court of the fact that about a quarter of all wage earners were to benefit from recently announced decisions of other tribunals, and that a new standard was necessary to form a basis for consideration of individual applications for wage adjustments. ¹

Reviews of awards to adjust disparities resulted in increases in individual awards of up to 3 ¾d. an hour. In the state services, a general increase in wages, approximately equivalent to the 3 ½d. per hour increases granted by the [Railways Tribunal](#) in February 1945, was announced, back-dating to June 1944.

It was wages rather than prices which made the first major breakaway from the rigid stabilisation programme. The stabilisation programme depended above all on equality of sacrifice or equality of restraint in demanding higher incomes. The end of wage stability came from a sense of unfairness when some sections got increases, rather than from any breakaway of prices raising the cost of living.

In December 1945 a new Minimum Wage Act was passed setting increased minimum rates applicable to all adult workers from 1 April 1946.

¹ The pronouncement referred also to a ‘noticeable tendency in the last few months for employers to agree to increased rates in Conciliation Council or in negotiations for special agreements.’ Again, it said, ‘The relative position of certain limited groups of workers has been appreciably improved in the past two years, possibly in some cases as a result of the adoption of militant tactics.’

WAR ECONOMY

STABILISED PRICES AND WAGES

Stabilised Prices and Wages

Chart 61 shows the degree of stabilisation in prices and wages from December 1942.

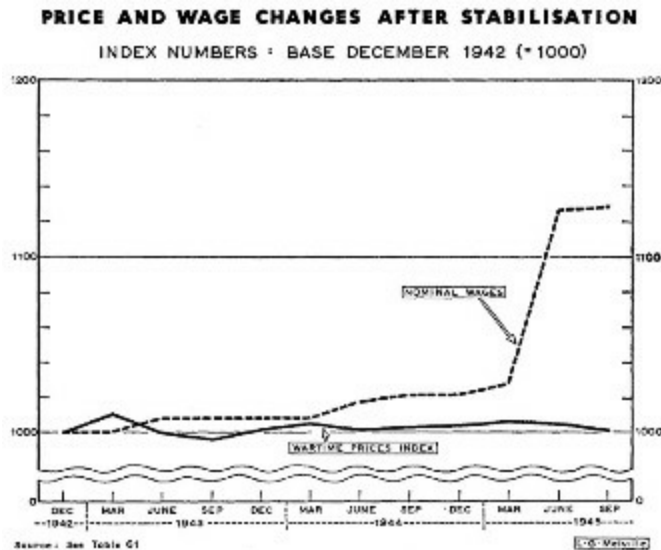


Chart 61

PRICE AND WAGE CHANGES AFTER STABILISATION
INDEX NUMBERS: BASE DECEMBER 1942 (=1000)

WAR ECONOMY

STABILISING FARM INCOMES

Stabilising Farm Incomes

Stabilisation policy, which was first formulated at the Economic Stabilisation Conference in October 1940, and which was worked out in greater detail during 1941 and 1942, was based from the beginning on an understanding between various groups, who were prepared to make sacrifices to ensure the smooth running of the war economy, provided the burden was shared by all.

The special place of farmers in the New Zealand economy had always been recognised. Their production was the predominant, earner of overseas exchange out of which imports and overseas debt servicing could be financed. Exports of farm produce earned annually a sum averaging about a quarter of the national income. Net incomes of farmers made up on average about 14 per cent of national income.

The relative importance of farm incomes made changes in export prices a major cause of instability in the internal economy of New Zealand. This had been an important consideration leading to the introduction of the guaranteed price scheme for dairy produce in 1936. Guaranteed price schemes for other products had not been accepted by farmers.

The comprehensive stabilisation scheme introduced in December 1942 provided for stabilisation of the payments to farmers per unit of their produce and for holding farm costs.

One of the main concerns of stabilisation policy was to keep an acceptable relationship between wages and farm incomes. The basis of the stabilisation understanding was that farmers and workers alike agreed not to take advantage of a sellers' market for their produce and labour. Without farm stabilisation, based on subsidies and pool accounts,

wage stabilisation would have been doubly difficult. Without wage stabilisation, farm costs could not have been stabilised, and farm price stabilisation would have been unacceptable to farmers. Farm incomes would have followed closely the upward trend in world prices, bringing severe inflation in a country short of goods and services.

In accordance with the stabilisation announcements of December 1942, the Government negotiated an agreement with farmers, covering dairy produce and meat, which was embodied in an exchange of letters on 18 June 1943. Briefly the agreement provided for:

- (The establishment of stabilisation accounts for each product or group
a) of products after consultation with the industry concerned.
- (The payment into stabilisation accounts of any increases in price
b) received from sales of the product overseas above the level ruling at 15 December 1942.
- (The payment from the accounts of subsidies required to keep the
c) costs of production down to the level ruling at 15 December 1942.

The agreement provided that credit balances in the accounts at the termination of the stabilisation scheme would be used for the benefit of the industry concerned, while debit balances would be met by the Government. The final clause provided that, while the agreement was in force, prices received by the farmer would not be allowed to fall below the level ruling in December 1942.

WAR ECONOMY

THE DAIRY INDUSTRY

The Dairy Industry

The stabilisation agreement with the Farmers' Federation was announced by the Minister of Marketing on 23 June 1943, in an address to the [National Dairy Association's](#) annual conference. He also informed the conference 'that the Government was prepared to accept the general principle that costs in butter and cheese production, dairy farming, factory requisites and other agreed costs should, as far as practicable, at the beginning of next season, be taken back to the 1938/39 level.' Because of administrative difficulties this proposal was not put into effect. Instead, dairy companies received equivalent compensation by way of increased cost allowances.

To siphon off price increases on sales of produce to the [United Kingdom](#) and the [United States Joint Purchasing Board](#), a Dairy Industry Stabilisation Account was established within the framework of the Dairy Industry Account, which had been set up for guaranteed price purposes and was operated by the Marketing Department. To this account were to be debited any amounts paid as farm or factory cost allowances, or paid as subsidies in agreement with the industry. Sums accruing in the stabilisation account were, in due course, to be available for the benefit of the industry.

A [Dairy Industry Costs Adjustment Committee](#), comprising industry and government representatives, met each year to determine what increases in factory and farm cost allowances should be made, these allowances being charged against the stabilisation account.

There was also a [Joint Debits Committee](#) of representatives of the Dairy and Meat Boards who met government representatives to determine which of the subsidies on fertiliser, on dairy requisites, on local market butter and so on could be met from the stabilisation

accounts, and to allocate the subsidies in a fair proportion between dairy produce and meat.

The result was to vary payments to dairy farmers, as follows:

PENCE PER LB. OF BUTTERFAT FOR BUTTER

<i>Season</i>	<i>Guaranteed Price as for 1941-42 Season ¹</i>	<i>War Cost Allowance ²</i>	<i>Farm Cost Allowance</i>	<i>Total Payable to Farmers</i>
1942-43	15·88	0·61		16·490
1943-44	15·88	0·61	0·767	17·257
1944-45	15·88	0·61	2·887	19·377
1945-46	15·88	0·61	3·904	20·394

In 1945 the Government and the dairy industry agreed to submit to arbitration the question whether the industry stabilisation account should meet the subsidy on the difference between the guaranteed price and the wholesale price of butter sold on the New Zealand market, and whether it should meet also the subsidy on requisites used in the production of dairy produce for the local market. A Commission of Inquiry was established, comprising the Chief Justice and two other Judges of the Supreme Court. The majority report of the Commission held that these subsidies could be met from the account. ³ The industry accepted this as far as past years were concerned, but intimated that it was not prepared to meet the subsidy for the season 1946-47 and after. ⁴

The balance in the Dairy Industry Stabilisation Account rose to £1·1 million in July 1944, but reached £4·7 million in July 1945 and stood at the same figure in July 1946. It was to go much higher in the next two years.

¹ This price had applied for four seasons, commencing in 1938-39.

² Allowance to meet (mainly) increased labour costs as a result of

general orders. Fixed by agreement between Government and Dairy Industry Council in May 1942.

³ The Commission reported in Parliamentary Paper H-30 B, 1946.

⁴ The following statement appeared in the 1946 report of the New Zealand Dairy Board, p. 7: 'On the 5th September the Prime Minister (Mr Fraser) intimated the decision of the Government that for the 1946-47 season payment would be made into the Dairy Industry Stabilisation Account from the Consolidated Fund of an amount equal to the dairy cost allowances and other subsidies debited to that account that are fairly apportionable to butter and cheese sold on the local market.'

WAR ECONOMY

LONG-TERM CONTRACTS AND LUMP SUM PAYMENTS

Long-term Contracts and Lump Sum Payments

Early in 1944 the United Kingdom Government initiated discussions to arrange long-term contracts for the purchase of meat and dairy produce. Finally, in July 1944, these contracts were completed, providing for substantially increased prices for New Zealand produce and the purchase of the exportable surplus of dairy produce and meat for a period of four years, prices being firm at agreed rates for the first two years, and thereafter subject to review ‘on substantial grounds’.

In addition to these contracts for meat and dairy produce, the United Kingdom Government agreed to pay a lump sum of £12 million sterling ‘as compensation to meet the abnormal increase in prices of New Zealand imports from the **United Kingdom from 1939 to the present.’ Further, the United Kingdom Government agreed to pay New Zealand a lump-sum payment of £4 million sterling per annum for the period of four years towards the cost of economic stabilisation in New Zealand, and in recognition of the fact that benefit accrued to the **United Kingdom** through New Zealand's economic stabilisation policy.**

The 1944 annual report of the **New Zealand Dairy Board contained a report of a statement by the Prime Minister: ¹**

‘He explained that at the commencement of the war, New Zealand agreed to sell the whole of the exportable surplus of produce to Great Britain at prices generally in line with the then ruling prices. It was emphasised that New Zealand did not wish to make any profit out of the war, but made a reservation that the position should be reviewed if the cost of imports from the **United Kingdom rose significantly. The substance of this reservation was repeated from time to time, but circumstances rendered it inappropriate to press for general revision. However, when a proposal was received from the **United Kingdom** that**

we should make contracts for our exportable surplus of dairy produce and meat covering the production of the next four years, the Government considered that before any such contracts were made, the whole of the growing disparity between the level of prices at which goods were sold to the **United Kingdom** and were purchased from that country should be discussed with the United Kingdom Government. Our case was that since the war began, import prices into New Zealand had risen substantially more than export prices. It was essential to the welfare of New Zealand that we should obtain a reasonable settlement for the past period and a better basis for future contracts. Otherwise, we would have reached the end of the war short of the sterling funds required to help in the restoration of our productive resources and to generally make good all the wear and tear of the war years. The Prime Minister referred briefly to the Government policy of stabilisation with the holding of costs involving very large subsidies, and he said that the British Government recognised that our production costs had been held at a much

¹ p. 4.

lower level than would otherwise have been the case, by the stabilisation scheme, and agreed that New Zealand should be compensated for her increases in costs, whether these were borne by the farmer, by the State through subsidies and cost allowances, by the whole community through the higher price paid for articles outside the range of that stabilisation scheme, or deferred and still to be met.’

Both New Zealand and the **United Kingdom** achieved a substantial measure of price stability from about the end of 1942, but, whereas New Zealand prices were then 14 per cent above their level at the outbreak of war, those in the **United Kingdom** had risen by 29 per cent. In other words, the **United Kingdom** stabilised at prices which had risen twice as much as those in New Zealand.

New Zealand, in paying for imports from the **United Kingdom**, suffered by having to pay the proportionately higher prices. For the most

part, the burden of the difference in trading conditions fell on the New Zealand taxpayers, who had to meet the cost of subsidies, which the Government, under the stabilisation scheme, usually paid out to prevent increased prices of imports from reflecting into New Zealand prices. ¹ The upsurge in **United Kingdom** prices also depreciated the real value of New Zealand's overseas exchange reserves which accumulated because of lower spending on imports during the war.

These facts affected both the settlement with the **United Kingdom** and the decision as to the disposal of funds in New Zealand.

Full information concerning the lump-sum payments was given to the dairy and meat industry leaders, who later expressed themselves as satisfied that these payments were not being paid in respect of produce sold to the **United Kingdom**. ² The sums were not therefore credited to the producers' stabilisation accounts.

¹ Subsidies to keep down the prices of imported items entering into farm costs were usually charged to the farm stabilisation accounts, but farmers, along with wage earners and others, benefited from subsidies to keep down the cost of consumer goods and services.

² Letter of 24 March 1945 to Chairman of the **Economic Stabilisation Commission**. Copy in New Zealand Meat Producers' Board annual report, 1945, p. 6.

WAR ECONOMY

THE MEAT POOL ACCOUNT

The Meat Pool Account

Though there was no guaranteed price scheme for meat, a pool account had been established in 1941. In the discussions between the Government and the meat industry, agreement had been reached that, in fixing the opening schedule buying prices for the 1941–42 season, the producers should receive substantially the same opening prices as they had obtained in the previous season, but they would forgo any increased prices that might be granted by the United Kingdom for meat or for pelts. The purposes in view were primarily to provide a fund, known as the Meat Pool Account, to maintain the value of ewe mutton and canning beef at a reasonable level, to meet interest, storage and insurance charges on meat, and to provide for the capital liability on emergency cannery plant and buildings and cool stores. The serious difficulty in shipping meat in this period made it essential to provide greater cool storage space and larger cannery facilities.

It was further agreed that, if at the end of the emergency period a financial surplus remained in the Meat Pool Account, the Government and the **Meat Board** would consult to determine how any such surplus could be used for the benefit of the industry. Should there be a deficit in the account at the end of the emergency period, such deficit would be the responsibility of the Government. From its inception, the Meat Pool Account showed substantial surpluses, because the anticipated loss on ewe mutton did not eventuate, and because credits to the account from increases in prices received from the United Kingdom Government were considerably augmented by increases in the prices of tallow and slipe wool.

WAR ECONOMY

THE MEAT STABILISATION ACCOUNT

The Meat Stabilisation Account

After the inauguration of the economic stabilisation scheme on 15 December 1942, a second account, the Meat Stabilisation Account, was established. The Meat Pool Account had up till then received the difference between the receipts from the **United Kingdom** and the lesser amounts paid to producers. After the stabilisation date of 15 December 1942, the Meat Pool Account continued to be credited with these same differences, but any credits over and above these differences went to the Meat Industry Stabilisation Account. As a result, the credit to the Meat Pool Account per unit of meat, tallow, slipe wool, and so on was static after 1942, and annual variations in total credits to this account after 1942 were due to changes in the volume of produce handled.

The balances in the meat accounts from year to year are shown in the following table:

<i>Balances as at 31 July</i>	<i>Meat Industry Stabilisation Account £(m.)</i>	<i>Meat Pool Account £(m.)</i>
1942		0·8
1943		1·9
1944	0·7	3·6
1945	2·9	6·3
1946	3·3	8·9

Before the commencement of the 1943–44 meat season, prices were adjusted to allow for increased costs and to encourage the production of heavier lamb carcasses in accordance with the desire of the United Kingdom Government for increased production. Increases were also granted in the price of ewe and heavyweight wether mutton, while adjustments were made in beef prices, resulting in increases in prices for the heavier weights of ox and heifer beef.

In November 1944, an agreement was concluded with the New Zealand Meat Producers' Board on increases in export schedule prices for the 1944–45 season. The letter from the Prime Minister to the chairman of the Board contained the following:

'It is considered desirable that both the Meat Pool Account and the Meat Industry Stabilisation Account should remain within the Meat Industry Account as at present, but the whole of the proceeds from the recent increase in the prices of meat to be paid by the United Kingdom Government will be credited to the Meat Industry Stabilisation Account and will be conserved exclusively for the industry, subject of course to such debits against the account as are contemplated in the Government's agreement with the Farmers' Federation on the 18th June 1943. All accretions to the Meat Pool Account will continue as in the past and no charges other than those already operative will be made against it except in agreement with the New Zealand Meat Producers' Board. This arrangement would have to be subject to review, in the event of the resources of the Meat Industry Stabilisation Account being insufficient to meet charges against that account. I would stress again that the balances finally remaining in the Meat Pool Account and the Meat Industry Stabilisation Account belong to and shall be held for the benefit of the industry.'

These arrangements were subsequently confirmed by the Board.

Since any balances remaining in each of the meat accounts were to be held for the benefit of the industry, there seems to have been no real need to keep them separate. The fact that there was in each case a Government undertaking to meet any deficit in the account may contain the explanation. A certain amount of concern about the possible implications of these separate undertakings was indicated in the Prime Minister's statement, when he referred to a review of the arrangements in the event of the resources of the Meat Stabilisation Account being insufficient to meet charges against that account.

WAR ECONOMY

EVALUATION OF FARM STABILISATION POLICY

Evaluation of Farm Stabilisation Policy

Substantial funds accumulated in the dairy and meat industry accounts, especially in the last two years of the war. The total reached approximately £17 million by the end of the 1945–46 season. The following table shows the influence of these accounts in keeping a portion of overseas earnings out of circulation in New Zealand.

Balances at End of Year

<i>July Year</i>	<i>Dairy Industry Stabilisation Account</i>	<i>Meat Industry Reserve Accounts</i>	<i>Total</i>	<i>Increase in Balances During Year</i>
	£(m.)	£(m.)	£(m.)	£(m.)
1941–42		0·7	0·7	0·7
1942–43		1·9	1·9	1·2
1943–44	1·1	4·3	5·4	3·5
1944–45	4·7	9·2	13·8	8·4
1945–46	4·7	12·2	16·9	3·1

There was no stabilisation pool account for wool,¹ though a portion of the 1942–43 and 1943–44 seasons' wool receipts was paid in government bonds and stock and into National Savings accounts in the names of individual farmers. The different stabilisation arrangements for wool as a possible cause of reallocation of resources within the farming industry were discussed in

Chapter 8. No doubt the varying intensity of the actual application of stabilisation to various commodities had other effects on the allocation of resources, both in the farming industry and between it and other industries. ²

Stabilisation meant not only divorcing prices paid to farmers from export parity; it also required that many ascertained increases in costs of farm requisites should not be allowed to affect farm running expenses. Many of the farmers' major costs were held for a number of years, and substantial subsidies were paid on fertilisers and other farm requisites to bring this about.

¹ Reasons for this are discussed in

Chapter 8.

² **The prices fixed for bulk purchase arrangements were in any case likely to be somewhat arbitrary, and the procedures adopted to switch production from butter to cheese and back (see**

Chapter 8) illustrated the expedients which may be necessary where a change in the relationship between supply and demand does not communicate itself, through price, to suppliers.

A record of stabilisation subsidy payments, including those on farm requisites, appears on [page 305](#). The importance of the farm subsidies is indicated by the following totals:

<i>Year</i>	<i>Total Stabilisation Subsidies Paid (March Year)</i>	<i>Farm Cost Subsidies Charged to Farm Industry Stabilisation Accounts ¹ (July Year)</i>
	<i>£(m.)</i>	<i>£(m.)</i>
1942-43	3·6	
1943-44	4·2	1·6
1944-45	6·7	2·5
1945-46	8·9	2·5

Nearly £7 million of subsidy payments was debited to farm stabilisation accounts up to July 1946. The gross sums held back in these accounts totalled £24 million, leaving balances of £17 million as shown on [page 331](#).

The increasing balances in the stabilisation pool accounts give a measure of the anti-inflationary effect of farm stabilisation policy. This was money diverted away from the private sector of the economy, where incomes were already too far in excess of goods available. ² Since the balance in each account was to be held for the benefit of the producing industry, it meant also that there were substantial funds which could be used to support prices during bad times.

The need for equity between farm incomes and wages has already been discussed as the primary reason for divorcing farm payouts from export price parity. Farming policy was, in fact, an integral part of the stabilisation scheme.

¹ Wheat subsidies were charged to the Consolidated Fund.

² Most of the reserves were invested in Government stock or bills. To the extent that this enabled the Government to make internal expenditure it would not otherwise have made, the anti-inflationary effect on the economy as a whole was lost.

WAR ECONOMY

THE WARTIME PRICES INDEX AS A MEASURE OF PRICE CHANGE

The Wartime Prices Index as a Measure of Price Change

Reference has been made to the fact that the items included in the Wartime Prices Index became price stabilised items. In some cases stabilisation extended beyond the ranges of items included in the index, but, for most commodity or service groups, the two lists of items were identical. This concentration of stabilisation on the index items tended to make the index unrepresentative, and would not have been acceptable to a statistician in normal circumstances. Its acceptance in time of war has been discussed briefly on [pages 312–14](#). The fact that the Wartime Prices Index contained more items than the previous Retail Prices Index did tend to reduce the likelihood of its becoming unrepresentative, and no doubt helped to secure its acceptance.

Though the Government Statistician did not publish the old Retail Prices Index after the December 1942 figure, the calculation of the index was continued and gives some measure of the downward bias introduced into the Wartime Prices Index.

	<i>Wartime Prices Index</i>	<i>Retail Prices Index 1926–30 Converted to Base December 1942 = 1000</i>
1942		
December	1000	1000
1943		
March	1011	990
June	1000	994
September	996	1007
December	1001	1016
1944		
March	1005	1010
June	1001	1013
September	1003	1024
December	1004	1034

1945		
March	1006	1025
June	1005	1029
September	1001	1036
December	1003	1042
1946		
March	1009	1036
June	1007	1039
September	1007	1048
December	1008	1047

In the September 1945 quarter the Wartime Prices Index was only 0·1 per cent above its December 1942 level. On the other hand, the Retail Prices Index, had it been available, would have shown an upward movement of 3·6 per cent over the same period. Even the Retail Prices Index probably slightly underestimated the rise in consumer prices. A substantial proportion of the items in it were also in the Wartime Prices Index, and were therefore stabilised. The price change shown by the Retail Prices Index may not, however, be very far from the truth. The purchases of the average consumer included a proportion of items whose prices were not stabilised, but so did the Retail Prices Index. If the two proportions of unstabilised items were not too different, the Retail Prices Index would still have been a reasonable measure, even though prices of the unstabilised items no doubt tended to increase faster than those of stabilised items.

While an honest endeavour was made, as part of the stabilisation scheme, to ensure a steady supply of the stabilised items, there were occasional breaks in supply. There were also cases where the controlled prices fixed by the **Price Tribunal were taken into the index from the Tribunal's schedules, with no inspection to see what prices were actually being charged or whether the price controlled items were actually available. This may or may not have resulted in understatements of actual price changes, but it is certainly a practice which a statistician regards with considerable suspicion. ¹**

Price control, while it helped to arrest price-wage and other spirals,

could do nothing to contain the growing surplus of purchasing power, as goods and services became scarce. Restraint of price rises in some items therefore tended to leave an even greater excess of purchasing power for spending on other items. However, the prudent consumer was reluctant to spend money on items whose prices had risen too high, and preferred to save until goods and services were more plentiful. Small savings averaged well over £25 million a year in the second half of the war.

Attempts by the Government to reduce disposable income by taxation and borrowing also discouraged expenditure and tended to encourage care and patience among consumers. For those consumers who bought with a restraint fitting to the state of national emergency, the Wartime Prices Index was not an unrealistic measure.

Even taking the evidence of the Retail Prices Index, the period December 1942 to September 1945 was one of remarkable price stability for a belligerent country.

¹ Correct procedure (as used for the Consumers' Price Index) is for field staff to record the prices at which goods are actually being purchased.

WAR ECONOMY

THE ROLE OF FISCAL POLICY

The Role of Fiscal Policy

The success of New Zealand's economic stabilisation scheme after December 1942 must be attributed in the main to the comprehensiveness and stringency of price, wage and other cost controls, and to the fact that most farm payouts were divorced from export parity. However, success would not have been possible without the backing of the Government's fiscal and monetary policy, aimed at meeting the cost of war from taxation and internal borrowing.

Chart 59, on page 291, showed the rapidly widening gap, in the war years, between private incomes and goods available for use. Goods available expressed in current prices increased by only £5 million between 1938–39 and 1944–45, whereas aggregate private income increased by £118 million.

National income statistics, when they became available, provided a better measure of income changes. These statistics permit an assessment of the effects of government fiscal policy in reducing the gap between income and goods available. ¹

Chart 62 shows the effect of direct taxes on income. Between 1938–39 and 1944–45 private income increased 70 per cent, but direct taxes increased 241 per cent. Disposable income, which is private income after deduction of direct taxes, increased, as a result, by 46 per cent. This was still a formidable increase compared with the 4 per cent increase in goods available, but the effect was much less disturbing to the stability of the economy than it would have been had the rates of direct taxation not been accelerated.

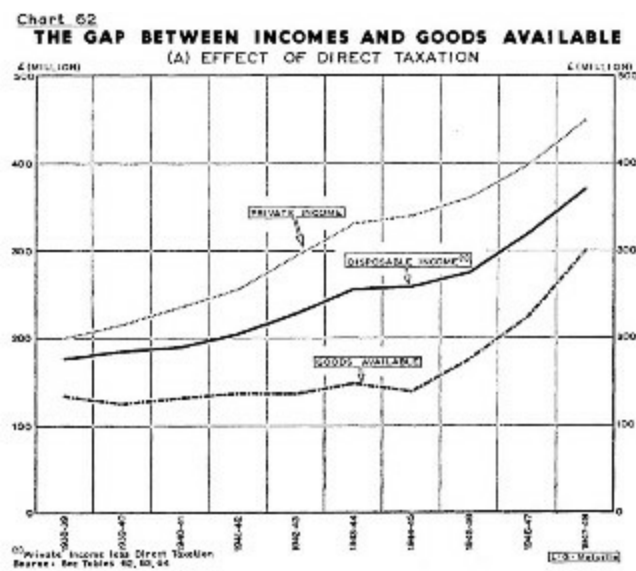


Chart 62

**THE GAP BETWEEN INCOMES AND GOODS AVAILABLE
(A) EFFECT OF DIRECT TAXATION**

¹ In following the analysis in the next few pages, it must be remembered that the gap between the two statistical series concerned cannot be studied exhaustively. Services, which may be paid for out of incomes, are not included in goods available. Goods available may be used for capital purposes. They may also be used by the Government, though war stores are specifically excluded. For a variety of reasons there is normally a gap between incomes and goods available. Interest attaches not to the size of the gap in any particular year, which is affected by these statistical differences, but to the way in which it widened over the war years, when civilian services as well as goods were in short supply. Some of the shortages of services are discussed in

The approximate effect of customs and excise duties and other forms of indirect taxation can also be studied. Indirect taxes, by raising the prices of the goods which were available, helped to mop up excess purchasing power. In fact, this form of taxation is often more effective than income taxes as an anti-inflationary measure, because it tends to restrain spending, and, when spending does occur, draws off part of the purchasing power. Subsidies obviously have the opposite effect. ¹

In Chart 63 the values of goods available have been adjusted to allow for the effects of indirect taxation in raising prices and of subsidies in lowering prices.

The total of indirect taxes less subsidies increased by 47 per cent between 1938–39 and 1944–45. When allowance is made for this change, the market value of goods available increased by 10 per cent compared with their unadjusted increase of 4 per cent. However, as we have seen, disposable income increased by 46 per cent over the same period.

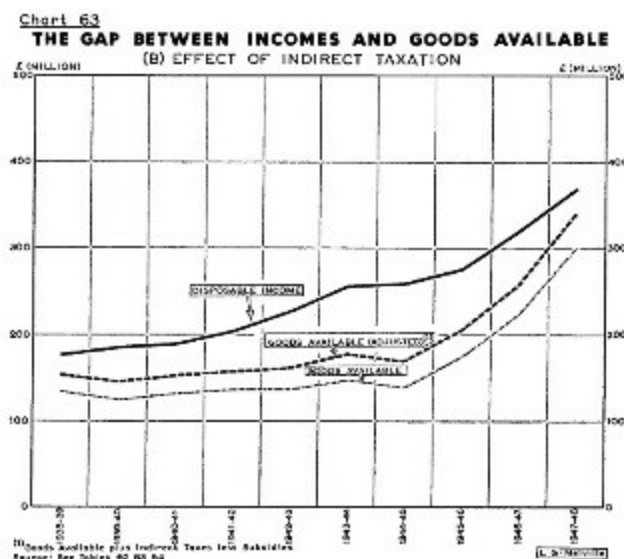


Chart 63
THE GAP BETWEEN INCOMES AND GOODS AVAILABLE
(B) EFFECT OF INDIRECT TAXATION

¹ As indicated on p. 307, their value as an anti-inflationary

measure lies in their ability to arrest spirals or potential spirals.

Summing up the effects of these changes:

INCREASES 1938-39 TO 1944-45

Percentage Increase

Before Taxation

Private Income 70

Goods Available 4

After Taxation

Private Income 46

Goods Available 10

WAR ECONOMY

STABILISATION ACHIEVEMENTS

Stabilisation Achievements

Stabilisation policy required a compromise between the impossibility of complete rigidity and the ineffectiveness of measures which merely restrained price increases to what was justified by cost increases.

The first three and a quarter years of war, when retail prices rose 14 per cent, showed the inadequacy of a policy aimed at restricting cost and price increases to what was due to war conditions. A much more stringent policy was called for. Costs, prices and wages had to be held close to a basic level in spite of wartime changes. This required more extensive use of subsidies, where elements of cost could not be prevented from rising. It needed to be supported by an intensive government financial policy to draw off excessive purchasing power at a time when the supply of goods and services was below normal, and when the Government's own high wartime spending was tending to aggravate the unbalance.

A further essential was the stabilisation of rates of payment for farm produce, both in the interests of equity and to reduce spending pressure on the internal economy. Holding farm costs was both a part of the general policy of cost stability, and one of the essentials for stabilising farm produce payouts.

Equally important, external influences in the form of rising import prices had to be offset, if prices and costs were to remain stable. The cost of this in subsidies was reduced by the fact that imports were not freely available, but this influence in its turn added to the difficulty of keeping a reasonable internal supply of goods and services to match the rising money demand for them.

No matter how effective government policy might have been in

holding stabilised prices, stabilised wages and other stabilised costs, the fact remained that insufficient goods and services were available to meet normal civilian requirements, and that, even allowing for the effects of taxation, there was an increasing excess of disposable private income over goods available. The very moderate changes in the Wartime Prices Index and the Nominal Wage Rates Index indicate the effectiveness of price and wage pegging for the items covered by these indices, but the use which was made of the growing surplus of disposable income would be the real test of the success of the comprehensive stabilisation scheme.

If one assumes a reasonable balance between goods available and disposable incomes in 1938–39, there was an annual surplus of incomes of £46 million by 1942–43 and of £67 million by 1944–45, after allowing for the effects of extra taxation. These surpluses, in the hands of people who were short of goods and services, could have led to fierce competition for the comparatively few remaining unstabilised items and to determined attempts to divert resources to the production of those items. As a less troublesome alternative, considerable portions of the surplus income could have been saved.

Both these effects occurred, but, with pressure of demand reduced by war taxation, control over the non-essential use of resources proved strong enough to restrict severely the available range of unstabilised items. Though prices for some items soared, the number of transactions in these items was not large enough to be a serious threat to the stabilisation scheme.

The situation for the consumer was that a good supply of most essentials was available at stabilised prices, and a very restricted range of luxuries at high prices. Some luxuries and consumer durables were not available at all. The consumer tended to postpone his spending, in the hope that these extras would become available later at reasonable prices. In other words, he saved his money. For this the Government provided ample opportunities and encouragement. Private saving left more resources available to be diverted to war purposes.

Small savings balances, after decreasing in each of the years 1938–39 and 1939–40, increased by £7 million in 1940–41, by £18 million in each of the next two years, by £29 million in 1943–44 and by £26 million in 1944–45. ¹

Private savings were used also to subscribe to war loans and development loans. In fact, if allowance is made for sums borrowed by the Government from the banking system, the rest of the wartime increase in the New Zealand held public debt must have come out of private savings. Savings on this wider basis, which would

¹ Small savings taken to include Post Office Savings Bank, Trustee Savings Bank and National Savings Accounts, together with National Savings Bonds. National Savings Accounts and Bonds were first used in 1940–41.

include much saving by businesses, as well as by households, grew from £7 million a year in 1939–40 to £46 million a year in 1942–43, and were higher still for each of the remaining war years. ¹

In Chart 64 the results of the study of wartime changes in private income and goods available, which were emerging in Charts 62 and 63, are summed up. The difference between the figures after allowing for taxation and subsidies is shown as a gap which grew larger until 1944–45, and thereafter started to contract.

The wartime build-up in saving and lending by the private sector of the economy is also apparent in Chart 64. While not too much accuracy can be attached to the figures, it is apparent that savings accounted for much of the surplus of disposable income over goods available.

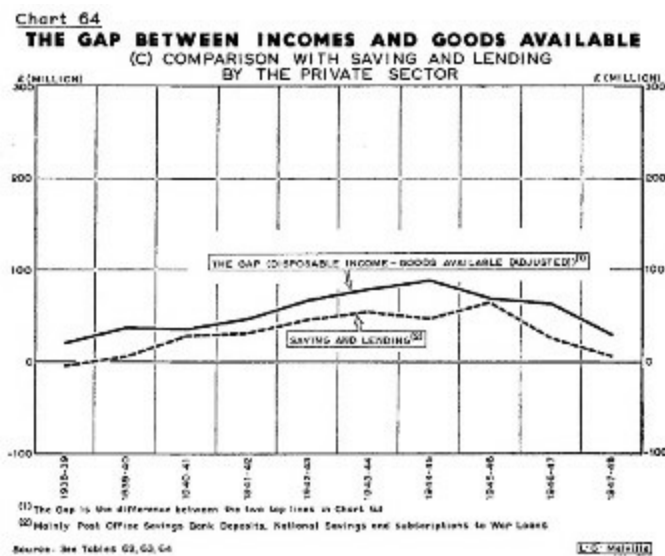


Chart 64

THE GAP BETWEEN INCOMES AND GOODS AVAILABLE
(C) COMPARISON WITH SAVING AND LENDING BY THE PRIVATE SECTOR

¹ Most of the increase in small savings became available to the Government and was embodied in the public debt, along with sums subscribed directly to loans. The internally held public debt increased by £257 million between March 1939 and March 1945, but of this sum £40 million was borrowed from the banking system. Changes in holdings of securities by Government Departments have been ignored, and may affect the above assessment a little.

The fact that these savings occurred, while people went without a portion of their normal supply of goods and services, and while prices remained pegged for a very wide range of items, is an outstanding tribute to the success of the stabilisation scheme.

New Zealand was not the only allied country to achieve substantial stability in prices in the later war years. The United Kingdom and **Australia**, for example, did so; however, stabilisation was achieved at a relatively lower price level in New Zealand. Over the whole of the war period price rises in some allied countries were:

*Percentage
 Increase*

<i>New Zealand</i>	
As shown by the Wartime Prices Index linked to the Retail Prices Index	14
As shown by using the Retail Prices Index throughout <i>Canada</i>	18
Index of Living Costs in eight Cities	19
<i>Australia</i>	
Retail Price Index (C Series)	23
<i>United Kingdom</i>	
Working Class Cost of Living Index	31
<i>United States of America</i>	
Consumers' Price Index for Moderate Income Families in Large Cities	28

WAR ECONOMY

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WAR ECONOMY

URGENCY LEADS TO NEW TYPES OF CONTRACT

Urgency Leads to New Types of Contract

A MAJOR economic problem in wartime was the collapse of the system of competitive tendering for government contracts. Whether in peace or war, special problems arose when the assistance of private firms was needed to carry out work on behalf of the Government. Both in allocating the work and in arranging payment, there were ample opportunities for corrupt practices unless watertight systems could be evolved and rigidly applied.

In peacetime, a wide variety of government work was allocated to private firms by inviting competitive tenders for jobs whose content had been carefully defined. Where there was genuine competition for the work by a number of firms with the capacity to undertake it, the system was effective, solving the problem of allocating the work, and providing some assurance that the price paid was reasonable.

Under war conditions, it was not long before pressure to get work done in a hurry led to the use of special types of contract designed to cut delays in assigning jobs to private enterprise. Speed was essential when the war situation became critical, but out of the speed with which much work was assigned arose uncertainties and muddlement as a result of newer, less definite forms of contract. Moreover, the competitive spirit, which provided a valuable safeguard against waste in any form of contracting, was severely weakened as firms became overloaded with war work.

Some change from peacetime contract arrangements was essential to get war work completed. So great was the volume of contract work to be done and so severe the shortage of materials and labour that the more cautious peacetime methods of assigning contracts could hardly have coped. Nevertheless the loss of departmental control over some types of

contract work seems to have gone much too far and to have involved not only unnecessary money cost but often waste of scarce resources, and even on occasions a sacrifice of time—the very thing the less rigid types of contract were intended to save.

Problems were created by the great volume of war work to be done, as well as by its urgency. Private contractors were being offered more work than they could handle. Competitive tendering was not effective in an industry overloaded with work to do; it depended on the existence of spare capacity. Moreover, when the productive capacity of contractors became saturated, some of them were reluctant to come to any form of advance agreement which would significantly restrict their ability to make high profits. Because the Government's hand was forced by the need for urgency, a number of very loose contracts resulted.

The extent to which looseness should be allowed to creep into contract arrangements in the interests of speed must always be open to question. Getting started on a job earlier does not always mean that it is finished earlier, or done better. Workmen or firms who refuse to operate in a muddling or untidy way may take longer to get started, but are likely to work more efficiently and to complete a job earlier. It is equally likely that, even where competitive tendering breaks down, properly drawn contracts, requiring a clear understanding in advance of what is to be done, and the basis of payment, may in the long run save much more than the time involved in preparing them.

Difficulties over government contracts were experienced in most allied countries as a result of the volume and urgency of war work.

WAR ECONOMY

COST-PLUS CONTRACTS FOR DEFENCE CONSTRUCTION

Cost-plus Contracts for Defence Construction

The early use of special types of contract, and the resulting misunderstandings, disputes, and excessive charges are referred to cryptically in the Controller and Auditor-General's report for the year ended 31 March 1940. He says:

'In view of the extreme urgency of the work of erecting and equipping the mobilization bases and training camps, both for land and air forces, the normal procedure of calling for tenders for the carrying out of the work was found by the Public Works Department to be impracticable, and the Hon. the Minister of Public Works approved the system of the letting of contracts on a "cost plus" basis. The "cost plus" contract system was a feature of armament expenditure in the [United Kingdom](#) and in the [United States of America](#) during the war of 1914–18.

'Under the New Zealand system contractors are reimbursed for proved expenditure, and receive an additional percentage designed to cover general overhead and to return some margin of profit.

'The Audit Office agreed to check before settlement all claims made by the contractors under this system, and this service entailed considerable urgent work on the part of my inspectors.

'Some little time after the commencement of work on "cost plus" contracts the Public Works Department prepared a standard contract form which was drawn to embody the conditions verbally conveyed to contractors by Public Works Engineers. Several groups of contractors declined to sign the contract documents, claiming that the contents did not coincide with their impressions of the position, and that they did not wish to prejudice their rights to maximum remuneration. This attitude led to disputes during the settlement of claims, and several of

the “cost plus” contracts when settled had to carry a final on-cost considerably in excess of the originally intended 7 ½ per cent. The intervention of Audit before payment resulted in substantial savings of public moneys, and contractors' claims in respect of one mobilization camp alone were, due substantially to Audit action, reduced by more than £8,000.’¹

The refusal of contractors to sign the standard type of contract was a symptom of the rapid change in the market for war work. Because of the urgent need to get massive volumes of work done with limited resources, contractors soon found they had a seller's market for their services. Some exploited the position to the full.

Special types of contract were soon in extensive use for building operations, for shipbuilding and ship repair work, and for munitions manufacture.

The Government's difficulties were to get worse. The rapid upsurge of war expenditure through 1940, 1941 and 1942 brought it to levels, in 1943 and for the remainder of the war, which by peacetime standards would have seemed impossible for the economy to bear.² Much of this money was spent in New Zealand and added to the pressure on the private enterprise part of the economy. There was mounting pressure on New Zealand producers, not only to handle the upsurge in Government contracts, but also to replace normal civilian supplies which could no longer be imported.

These extra demands fell on producers whose manpower was, by the end of 1941, seriously depleted and whose supply of imported materials had in many cases started to fall away even before the war. It was not surprising that control over contract work became difficult. Despite determined attempts to find new types of contract to meet the situation, the position continued to deteriorate. Only in industries where pressure of private work was successfully held back by controls could the Government expect fair treatment.

¹ **B1, Part II, 1940, p. ix.**

² **See also**

WAR ECONOMY

SPECIAL CONTRACTS FOR SHIPBUILDING AND REPAIR

Special Contracts for Shipbuilding and Repair

As with defence construction work, special types of wartime contract were soon in use for shipbuilding and repair. Excessive pressure of work on this small industry ¹ made it difficult to obtain competitive tenders, and uncertainties about important items of cost prevented agreement being reached on prices before contracts were signed.

Prior to the war the **Marine Department's** engineers could estimate fairly accurately in advance the cost of most jobs, but after war broke out labour and material costs were so uncertain that accurate estimation became difficult, both in shipbuilding and in ship repairs. This led to the adoption of the 'cost-plus' system of charging, and its near relative the 'time-and-line' method. Firms were no longer willing to submit competitive tenders and began to ask that repairs and ship construction should be paid for on the basis of the cost of labour and materials, a percentage of the labour cost for overhead, and 10 per cent on all these items for profit. Although there was at first some reluctance on the part of the Navy and the Treasury to adopt this system, it came to be used, with only a few minor exceptions, for all shipbuilding and repair work.

The basis of the 'time-and-line' method was that all materials used were paid for at gross cost, the trade and cash discounts going to the contractor, and labour was paid for at 'schedule' rates, which included the award rate for those employed plus an extra 40 to 50 per cent to cover the administrative costs, overhead and profit of the contractor.

As with defence construction contracts, uncertainties and suspicions of overcharging soon arose with regard to shipbuilding and repair work. For shipbuilding an attempt was made to improve the situation by fixing target prices and by trying to write terms into the contracts which

would give firms a profit incentive to keep within the target prices.²

¹ See also pp. 168–73.

² See also p. 352.

WAR ECONOMY

DEPARTMENTAL STAFF DIFFICULTIES

Departmental Staff Difficulties

Apart from the fact that, in most industries, the rapid saturation of any excess capacity made it difficult to get competitive tenders, the Government was hindered by insufficient departmental staff to make advance estimates of the content of jobs. Staff shortage also prevented adequate inspections of the work as it progressed: a deficiency which led to waste and made the checking of firms' accounts even more difficult.

Lack of advance estimates of job content was the most serious drawback. Without them, there was no possibility of reaching agreement on a price for the job before work started. There was then no target for the contractor which would automatically bring him increased profit if he kept within it. He had no incentive to do the work efficiently.

In those cases where there was no target figure for the whole job, but the profit element was fixed in advance, there was still no incentive for the contractor to keep down costs. Worse still, in the cases where profit was related to actual costs, there was even an incentive to inefficiency—extra costs meant extra profit.

These troubles, combined with inadequate staffs to check progress of work and review charges, left the Government in a very vulnerable position at a time when so much extra war work had to be done.

WAR ECONOMY

THE CONTROLLER AND AUDITOR-GENERAL EXPECTS AN IMPROVEMENT

The Controller and Auditor-General Expects an Improvement

When the Controller and Auditor-General prepared his report for the financial year ended March 1941, he seems to have been hopeful that improvements made in the special types of wartime contract would do away with some of the earlier abuses. He wrote: ¹

‘In my last report I referred to the examination of accounts in connection with the erection of emergency defence buildings under “cost plus” contracts. Modifications of this form of contract have been introduced with the object of providing contractors with an incentive to urgency or economy.

‘One useful modification lies in the direction of reviewing a completed contract and fixing the final price in accordance with an investigation of the contractor's books by Government costing officers. This procedure permits the Government to ascertain more closely the cost of the contractor's operations, and gives a more accurate result than is yielded when indirect costs are fixed by estimate, as in the simpler type of “cost plus” contract. This form has been adopted in respect of numerous contracts for the manufacture of warlike stores in New Zealand.

‘The construction of several vessels has been entrusted to shipbuilding firms under a variation of the “cost plus” contract whereby a “target” or estimated price is fixed plus an agreed upon fee. If the contractor is able to introduce economies so that he undercuts the target price he shares in the savings. If, on the contrary, the target price is exceeded no fee in excess of the fee originally agreed upon accrues to the contractor.’

¹ B-1 [Part II], 1941, p. xi.

WAR ECONOMY

INCREASING URGENCY AND LOOSER CONTRACTS

Increasing Urgency and Looser Contracts

In spite of this rather more optimistic view, the position was to get worse rather than better. Pressure of work was increasing and contractors were often able to refuse or circumvent the modifications designed to tighten up the special contracts.

The entry of **Japan into the war in December 1941 accelerated war preparations within New Zealand and made urgency absolutely paramount in assigning contracts.**

With the increasing volume of war work, and the mounting unsatisfied public demand for consumer goods, pressure of demand became excessive for a wider range of industries. The peacetime system of letting contracts by competitive tendering, already difficult to apply in some industries, now became unworkable over a large portion of the economy. Work banked up for depleted departmental staffs struggling with the preliminary estimating and final checking associated with the special types of wartime contract.

Departmental control became less and less effective and there were increasing abuses of the looser contracts.

Attention has been drawn to some early attempts to cope with the special weakness of cost-plus contracts—the fact that higher costs led to higher profits. Target cost figures were fixed for contracts and profits were based on the targets. A bonus could be earned by working within the target. ¹ This arrangement did exercise some measure of restraint, as long as target costs were realistic. However, on many occasions the target figures were too far removed from actual costs and had to be revised. The revision completely defeated their purpose.

Moreover, it was not always possible to let contracts under the target

cost type of contract. Many firms were looking for looser arrangements where more profits could be made. In some industries, any attempt to insist on a certain type of contract just meant that contractors would concentrate on other work. There was no lack

¹ See also p. 352.

of jobs offering, and some firms could and did threaten to refuse war work unless their conditions were met.

With ship repair work, where the exact requirements were more difficult to settle in advance, targets were usually not practicable. In an attempt to improve contract arrangements, the [Shipbuilding and Repairs Committee](#) ¹ early in 1942 made an unsuccessful application to the [Price Tribunal](#) for a price order for ship repair work. In support of its application the Chairman said that the Committee was disturbed by:

‘(the exorbitant charges made by ship repairing firms, both main
a) contracts and sub-contracts and

‘(the spirit of competition which exists between ship repairing firms as
b) between ship repair work which returns handsome profits and other Government work such as minesweeper construction, where profits are limited.’ ²

¹ This was a programme organising committee appointed by the Minister of Supply and Munitions on 1 July 1941. It was superseded in November 1942 by a Controller of Shipbuilding.

² [Marine Department](#) file M. 12/888. A later application was granted, see p. 355.

WAR ECONOMY

THE AUDITOR IS MORE CRITICAL

The Auditor is More Critical

In his report for the year ended March 1942, the Controller and Auditor-General was becoming increasingly critical. He said: ³

‘In former reports the subject of “cost plus” contracts has been mentioned, with particular reference to their use in defence construction contracts, and this type of contract is still in operation, although it has defects which have evoked criticism in many places where it has been used. The circumstances in which these contracts find favour include:

(Where the time element is of great importance:

a)

(Where productive capacity is so limited that every productive unit, b) efficient or otherwise, must be pressed into service:

(Where lack of production experience makes the accurate estimation c) of likely costs difficult or impossible.

‘Amongst its defects are the following:

(1) The contractor receives his percentage to cover his overhead and profit irrespective of results or cost:

(2) The more the cost is inflated, the greater the fee received by the contractor:

(3) Incentives to speed, and to economy in the use of labour and materials are lacking:

(4) The limitation of profit to a percentage on capital employed offers no reward for special effort; neither does it penalise inefficiency or negligence.

‘The “cost plus” system was applied during the year principally to building operations, shipbuilding and ship repair, and munitions manufacture. In respect of ship repair work and munitions manufacture, standardised contract forms have been devised, but the Audit Office

understands that Departments have not made use of them, despite the desirability of ensuring that contractors should know what expenses the Crown is prepared to allow or disallow. There is very considerable diversity in the methods at present adopted for assessing overhead and profit allowances, and it is desirable that they be placed on a uniform basis for each manufacturing group.

‘In respect of ship repair, the Audit Office was not given the opportunity it would have wished to check expenditure as it proceeded, and as regards munitions contracts the data on which the Government Costing Officers based the prices agreed upon is not available in suitable form for ready investigation by Audit.

‘The target price or target cost contracts in connection with shipbuilding mentioned in my last report have now been completed, but the Department concerned advises that owing to material changes in design the final costs were approximately double the target price. The aim, therefore, was wide of the mark, and the value of fixing a target was altogether discounted. The Audit Office was, however, able to satisfy itself as to the expenditure which the contractors had incurred. An extra fee to be settled by negotiation is to be paid to the contractors on account of the excess cost.

‘Since the recent appointment of the Commissioner of Defence Construction, building contracts have been arranged upon the basis of schedules of quantities prepared by quantity surveyors and priced by reference to master schedules based on agreements between the Commissioner and the Master Builders’ Association. Provision is made for the contractor to claim adjustments of schedules arising from circumstances of a particular contract, and the contract price is arrived at by adding to the priced schedule 5 per cent for profit and a further 2 ½ per cent to cover overhead expenses. Timber requirements are arranged and paid for by the [State Forest Service](#) under a procedure which allows the contractor the agreed percentages upon the assessed value of timber incorporated in the works.’

WAR ECONOMY

THE MASTER SCHEDULE

The Master Schedule

The master schedule system for defence construction work had been introduced in March 1942, by which time all other methods of allocating work had proved inadequate to meet the increasing demand. ¹

Under the master schedule system the proposed work was divided into its component parts and an initial contract price was arrived at 'by multiplying such component parts by the unit prices (labour and materials) allowed in the master schedule. ² To the initial contract price were added extras allowed in country work and other appropriate adjustments plus 5 per cent profit and 2 ½ per cent overheads, thus making up the final contract price.' ³

Meantime public criticism of the abuses of wartime contracts was becoming much more vocal. In July 1942, the Commissioner of Defence Construction, Mr James Fletcher, was moved to say: ⁴

'There is no such thing as a contractor being allowed to do a job and then put into the Government a bill for all his costs, and on top of that a percentage for his profit.

'We work to a master schedule,' continued Mr Fletcher. 'The cost of all materials is fixed and supplied at those prices. The amount of material necessary for the job is measured beforehand by Quantity Surveyors who are experienced experts in their particular work. The labour cost of doing a particular job connected with any contract is assessed by experienced practical men on a man-hour basis. The complete total of the cost of the contract includes transport, board for workmen, allowance for waste, and a percentage as the contractor's profit for the completed work.

'The contractor is responsible for engaging the men and assessing

the number of men he requires to do the work in the prescribed time. If he overmans, or the men are not efficient and do less per hour or day or week than what an efficient workman should do, then the contractor will find his profits diminishing or disappearing altogether. The contractor has all the facts in front of him when he takes on the job.'

This was a very good summary of the purpose of the master schedule system, but unfortunately all did not work out according to plan. One of the essentials of the master schedule scheme, the assessment of contract details in advance, was frustrated by lack of staff. The Works Department later wrote: ⁵ 'In practice, the ideal aimed at in this proposed procedure was never attained. It was, indeed, obvious right from the start that the quantity surveyors, with the limited trained staff at their disposal, could not possibly prepare price schedules beforehand for each and every one of the hundreds of works which were being allocated week by week, and, which, regardless of other considerations, had to be put in hand forthwith.'

It was equally obvious that, if quantities of materials and labour could not be scheduled in advance, work under the master schedule would have many of the disadvantages of work under the old 'cost-plus' system, in that there was no longer a proper incentive for the contractor to save materials or labour, or even to be accurate in his measurement of materials or his charges for labour.

¹ See also pp. 240- 1.

² The Commissioner of Defence Construction sought the co-operation of the builders to arrive at mutually acceptable unit prices.

³ Official War History of the Public Works Department, Vol. I, p. 194. For some types of work the rates were revised in October 1942. See also p. 350.

⁴ **‘James Fletcher Talks about War Contracts: High Wages and Output’— *New Zealand Truth*, 8 July 1942.**

⁵ **Official War History of Public Works Department, Vol. I, p. 239.**

WAR ECONOMY

MORE CRITICISM OF WARTIME CONTRACTS

More Criticism of Wartime Contracts

Public criticism continued and in October 1942 the Minister of Public Works, Mr Armstrong, reminded the House of Representatives of some of the underlying difficulties: ¹

‘There is no doubt in my mind, nor in the minds of my officers, that the tender system would have failed completely to meet the tremendous defence programme of the past few months, and, moreover, costs would certainly have soared. Members will recollect the serious competition for labour between building firms and the manner in which labour rates were being increased and increased, to obtain that labour. The necessity for organisation and control of materials due to our limited resources also rendered the tender system inapplicable.’

By this time a further difficulty had emerged. For many types of work, the profits earned under the master schedule system had turned out to be very much in excess of what had been in mind when the master schedule was first worked out. The Minister of Public Works went on to inform the House of adjustments in the schedule rates. He said:

‘The master schedule rates constituted a basis upon which payments would be made to the various firms to which jobs had been allotted. It became evident long before final payments were made to these firms that the basis was too high for certain grades of work, though fairly right for others, in which a higher standard of workmanship was demanded. Accordingly, I arranged with officers of my Department to take the requisite steps to have the whole position fully investigated, and, as a result of this investigation and various conferences arising from it between the Commissioner of Defence Construction, quantity surveyors,

the master builders' associations, and the Public Works Department, an agreement has been reached with the master builders' associations whereby works generally are graded into four groups, namely, (1) For works of a permanent nature but requiring a superior finish—for example, hospitals—for which master-schedule rates with certain approved additions will apply. (2) For works of a permanent nature, in which case the master-schedule rates in full will apply. (3) For works requiring a moderately lesser standard of construction, in which case master-schedule rates less 7 ½ per cent on the labour-content will apply. (4) For works of a temporary nature, wherein a still lower standard of construction is required, in which case the master-schedule rates less 15 per cent on the labour-content will apply. It should be realised that there are two aspects of the master schedule—rates for materials, and rates for labour. The materials rates are fixed on ruling prices, and would be the same were the tender system being used. It is the labour rates in the schedule which affect comparative costs, and it is on this section that the schedule is adjusted....

‘Over and above this arrangement, which is as near perfect as it can be made arbitrarily, there is a final check on the cost of the works after they have been completed, the purpose of which is to see that the various firms concerned do not realize more than 5 per cent profit and 2 ½ per cent overhead on the cost of the work.’

This last statement is particularly interesting in view of later revelations about profits earned on some of the wartime contracts. ¹

The Controller and Auditor-General, in his report for the year ending 31 March 1943, again focused attention on weaknesses in contracts for war work. Speaking of building contracts he said: ²

‘Much the greater part of building constructional works for defence purposes is now being effected on the “master-schedule” basis

introduced into this sphere of activities by the Commissioner of Defence Construction, as referred to in my last year's report. Competitive quotations are not obtained, but contracts are arranged upon schedules of quantities priced according to schedules agreed upon by the Commissioner of Defence Construction and the master builders' associations. Each schedule sets out the unit rates for labour and material in the area or district to which it relates, and includes full allowances for workshop expenses and profit in the case of materials such as joinery, plumbers' requisites, electrical, metal, and similar supplies,

¹ See also pp. 358 and pp. 363.

² B-1 [Part II], 1943, p. xvi.

whether produced on the contractor's own premises or furnished by a subcontractor. It was intended that schedules of quantities to be used should be prepared by quantity surveyors, but owing to a shortage of qualified men it has not always been practicable to carry out the intention. The contractor is allowed to add to the schedule a list of any adjustments which he wishes to claim as arising from any special circumstances, and if these are accepted the schedule is adjusted accordingly, and the contract price is settled by adding 5 per cent for the contractor's profit, and a further 2 ½ per cent of the total to cover his overhead expenses.'

Referring to the profit rates being earned in building contracts, the Controller and Auditor-General went on to say:

'Investigation by the Public Works Department indicated that the original schedules gave contractors an unduly high rate of profit on certain types of buildings, and a reduction in rates was effected in September last. It is desirable that tests of the fairness of schedule prices should be made from time to time by reference to the actual

profits earned by contractors as shown by their own records, and the contracts provide for such reference if it is desired. Representations were accordingly made to the Commissioner and the Public Works Department and these authorities have agreed that examination of the contractors' records will be made forthwith.'

Once more there was recognition of the need for early steps to review contracts, but, in the event, there was to be very little effective action.

WAR ECONOMY

TARGET PRICES FOR SHIPBUILDING

Target Prices for Shipbuilding

Shipbuilding contracts also received further attention. The Auditor's 1943 report said:

‘These contracts have been the subject of comments in my reports since the outbreak of war. To New Zealand's requirements have now been added the local requirements of the **United States authorities. During the financial year a Controller of Shipbuilding was appointed by the Government to control all classes of Government shipbuilding, and his policy has been to retain the target price type of contract. The essential point in this type of contract is that a “target” price is set as the estimated cost of constructing the vessel. Overhead charges are recouped to the contractor as a percentage of the target price, and his profit fee is fixed on the same figure. As an incentive to economy, the contractor receives a bonus if the final cost is less than the target price and receives no additional overhead charge or profit fee if the target price is exceeded....**

‘The Audit Office has endeavoured to maintain a close and effective check on expenditure on shipbuilding activities, particularly at the main shipbuilding centres, but it has experienced difficulty in satisfying itself that capital charges to be borne by certain contractors and construction costs to be paid by the Crown have been charged correctly in terms of the relative subsisting contract. Where the Audit Office was of opinion that a payment did not fall within the terms of contract the attention of the Treasury and Marine Departments was drawn to the matter....

“Cost plus” contracts appear to be unavoidable in some classes of ship repair work, as distinct from shipbuilding, but the Audit Office has not had the staff necessary to verify actual costs. In this class of contract the **Navy Office and the **Marine Department** are expected to**

exercise close supervision, particularly as regards the time entered as the basis of the claim in respect of direct wages, and departmental officers enface appropriate certificates on the claims submitted for payment. The Audit Office has been able to do little more than try to ensure that Departments realise fully their responsibilities in the matter.'

WAR ECONOMY

WEAKNESSES IN OTHER CONTRACTS

Weaknesses in Other Contracts

Reference was made also to unduly high prices for construction of Army huts. 'A very large contract for the construction of some 8,500 Army huts had been arranged at a fixed price per hut, but information obtained by the Audit Office indicated that such price was excessive. Treasury and Audit then made an investigation, with a result that a saving of some £30,000 was effected.'

Finally, one finds in the Controller and Auditor-General's 1943 report a reference to even further deviations from normal contract methods, with the emergence of oral contracts. 'There have been a few instances during the year of urgent defence construction works being carried out on oral instructions without pre-arranged basis of remuneration or definite limit on the extent of the work to be done, and without making provision for inspection of the work as it proceeded. Such circumstances are liable to encourage extravagant claims, to lead to unnecessary work being carried out, and to render difficult the production of satisfactory certificates as to what actually was done.'

Maximum pressure had been put on the construction industry in 1942-43, and an unbelievably high output had been achieved. The accelerated defence works programme to meet the threat of Japanese invasion, and the rush to provide camps and hospitals for American forces which first arrived in June 1942, made speed, for a time, the only important consideration.

In this emergency, James Fletcher was not the man to be deterred by the shortcomings of oral contracts. In July 1942 he was reported as saying: ¹

'I am no lover of red tape. There is a job to be done quickly. I have no

big office staff—but it is most efficient. Hours, days, weeks, perhaps months, are saved by use of the telephone or the telegraph office.'

¹ *New Zealand Truth*, 8 July 1942.

WAR ECONOMY

PRESSURE OF WORK IN THE RADIO INDUSTRY

Pressure of Work in the Radio Industry

War demands were to put the radio industry under extreme pressure.² Though some specialised equipment was made in the early war years, it was not until 1942 that a substantial Army order for a general purpose transceiver³ brought this industry into large-scale war production. Precision output was required, and speed of production was here again a major consideration. The Controller of Radio Production, Mr R. G. Slade, soon found it necessary to resort to what he called the 'efficiency destroying cost-plus system.' One is left in little doubt about the Controller's attitude to the looseness in wartime contracts, but, because of lack of stocks of equipment and uncertainties about the continuing flow of supplies from overseas, there were few instances where the more normal tender system could have been successfully applied.

In the radio industry a rather tighter control over cost-plus contracts seems to have been established, with the result that there were apparently fewer abuses than in some other industries. One firm which came under the notice of the Audit Office and the Treasury had succeeded in 1943–44 in making a net profit amounting to 34 per cent on capital employed, mostly from fixed price contracts, but this seems to have been an exceptional case.⁴

An interesting feature of the industry, which probably accounts in large measure for the comparatively small amount of profiteering in it, was the virtual prohibition of civilian work after June 1942. The Radio Manufacturing Control Notice, 1942,⁵ then provided that '... no person shall manufacture, whether for sale, for other disposal, or in pursuance of a contract for manufacture, any radio receiving apparatus except in pursuance of a contract made on behalf of His Majesty for the supply to His Majesty of radio receiving apparatus for military purposes.'

Though some exceptions were made to this rule, the restriction on private work was more severe than in most other industries.

² See also pp. 167– 8.

³ A small portable radio receiver and transmitter, known as a ZC 1.

⁴ There was considerable negotiation over one of this firm's contracts where the price was 3 3/4 times the pre-war imported price. It was eventually reduced to 2 ½ times the prewar imported price. This price the Controller considered still too high, but he was refused access to cost records.

⁵ This Order was designed primarily to preserve stocks of components. See also p. 167.

WAR ECONOMY

TIGHTER ARRANGEMENTS FOR SHIP REPAIR WORK

Tighter Arrangements for Ship Repair Work

During 1942 the **Shipbuilding and Repairs Committee** had asked the **Price Tribunal** to fix standard rates for ship repair work, so as to avoid confusion in charging out labour and materials under cost-plus arrangements. ¹ From January 1943 the **Price Tribunal** fixed schedule rates, and by 1944 most work was being charged at these rates. The schedule rates covered award wages and cost of living bonuses. Overhead was assessed as a fixed percentage of productive wages, with the result that there were excessive overhead recoveries where overtime was worked. ² On occasions firms charged for apprentices at the full schedule rates, but in general the standard of charging improved.

To reduce discrepancies in quantities charged, a **Ship Repairs Costing Service** was set up in January 1944 and became responsible for examining and certifying ship repair claims payable by the Government.

¹ See also p. 347.

² The customary engineering practice was to charge packed hours for overtime, which meant that an overtime payment for, say, 4 hours' work at 1 ½ times ordinary time rate was entered in the books as 6 hours at ordinary time rate. The payment to the worker was the same, but all 6 hours ranked for overhead and profit allowances. See also p. 360 for an example of the effect of this practice.

WAR ECONOMY

ATTEMPTS TO REVIEW WAR CONTRACTS

Attempts to Review War Contracts

Growing recognition of the need to review war contracts led to the inclusion of a provision in the Finance Act 1943 which gave the Treasury and the Audit Office power to investigate the accounts of firms engaged in government contracts. ³

This became effective in August 1943. However, early in December, the Master Builders' Federation obtained a legal opinion to the effect that the provision did not give power to inspect all a contractor's records, but only those relating to government contracts. This would have made it impossible to examine profits made by contractors, but it was agreed that, rather than seek extra powers immediately, investigations should proceed on a voluntary basis.

Accordingly Cabinet, on 17 December 1943, approved the 'Appointment of a Commission consisting of three persons to inquire into the costs incurred in the construction of defence and other buildings under the emergency conditions existing during the possible Japanese invasion, with a view to reducing such charges

³ All government contracts and sub-contracts were covered. The provision was not limited to construction work.

to a reasonable economic basis and obtaining where necessary reimbursement of any sums overpaid....' The Commission was known as the Contracts Adjustment Commission and comprised a Government representative and a representative of the Master Builders' Federation, with **Mr Justice Tyndall ¹ as Chairman.**

Meantime the Controller and Auditor-General was becoming

increasingly concerned. In his 1944 report he said: ²

‘Reports from Great Britain, United States of America, and Canada show that many war contracts in those countries to which the State has been a party have been investigated to ensure that contractors have not received more than a reasonable profit. When unduly high profits have been disclosed, refunds have been negotiated.

‘The Audit Office has, so far as staff was available for the purpose, inquired into profits made on war contracts in this Dominion, and has also examined reports on the same subject made available by other Departments.

‘A figure of 6 per cent return on capital, after deducting income tax at basic rates, has been given by the Minister of Finance as a profit guide to Departments concerned in the negotiation of war contracts. In some cases noticed by this Office this rate has been far exceeded, and in others profits earned have been in excess of the rate fixed by the terms of the contract. In only a few cases, however, has an endeavour been made to effect re-negotiation.’

Speaking specifically of building contracts the Controller and Auditor-General said:

‘In my last report mention was made of the desirability of testing the fairness of prices paid under master schedule contracts by reference to the actual profits earned by contractors as shown by their own records. Accordingly, arrangements were made with the Public Works Department that it should examine contractors’ accounts, and, in all, the results of over eighty contracts of a total value of well over £1,000,000 were obtained. The investigation showed that contractors were earning profits far beyond the 5 per cent on profit bearing costs contemplated by the master schedule, and representations were made to the Department that it should endeavour to recover from contractors sums considered to be in excess of fair and reasonable profits. In December last, Departmental representatives met a Committee of the

Federated Builders' Association of Employers ³ and agreement was reached

¹ Later Sir Arthur Tyndall.

² B-1 [Part II], 1944, p. xxi.

³ Commonly known as the Master Builders' Federation.
(Author's footnote.)

with the Committee for re-negotiation of contracts on a voluntary basis. After some delay a **Contracts Adjustment Committee** was set up to review the accounts of those contractors who were agreeable to adjustment, but to date no determination in respect of any contract has been made by the Committee. In fact, the latest information to reach the Audit Office is that the Federated Builders' Association has withdrawn its member from the Committee and has suggested that the Committee be disbanded. The total value of contracts let under the master schedule system is estimated by the Public Works Department to be in excess of £15,000,000 and the totals of the contracts let to individual contractors vary from less than £1,000 to £1,500,000.'

Actually the Contracts Adjustment Commission had had three meetings and was at the stage of assembling information for study when, in August 1944, the Master Builders' Federation representative withdrew. Following some discussion about the terms of reference, the Master Builders' Federation wrote on 23 August 1944, stating that it was not prepared to continue to support the Contracts Adjustment Commission, and suggesting that the Commission be disbanded.

No satisfactory arrangements to review defence construction contracts were ever made. After a number of attempts to have the Contracts Adjustment Commission re-established, **War Cabinet** finally disposed of the matter on 3 August 1945 ¹ by approving 'acceptance of

the Master Schedule position as reported and that no further action be taken regarding the Contracts Adjustment Commission.’

Attempts to have shipbuilding contracts reviewed were also largely ineffective. The Controller and Auditor-General in his 1944 report said: ²

‘The Audit Office has maintained a reasonably close check on current payments, and has supplemented this check in selected instances by an examination of contractors’ accounts. Where contractors appear to have earned high profits the circumstances have been reported to Treasury, but in no case has this resulted in any cash recovery to the State.

‘In my last report I advised that the Controller of Shipbuilding intended to retain the target price type of contract in respect of ship construction, but contracts let since that date have actually been (a) firm price contracts, or (b) cost plus a percentage, or (c) cost plus a fixed price.

¹ Official War History of the Public Works Department, Vol. I, p. 280.

² B-1 [Part II], 1944, p. xxii.

‘As the production or turnover of shipbuilding contractors has expanded, a percentage to cover actual overhead expenses, based on a previous year's accounts, has usually resulted in the contractor receiving a “profit” on such expenses, but this profit has been the reflection of a larger turnover rather than an indication of increased efficiency. In response to Audit representations, Treasury therefore has agreed that, where possible, contractors’ overhead expenses will be reimbursed on the basis of actual cost rather than on a percentage of wages cost.’

The Controller and Auditor-General became resigned ultimately to

the fact that no effective general investigation of wartime contracts was likely to result from the criticism which these contracts had received over the years. In his 1945 report he said: ¹

‘In my last report I indicated that undue profits had been earned on building contracts let on a master schedule basis and that a **Contracts Adjustment Committee** has been set up to review these profits and re-negotiate the contracts. I now have to report that the Committee has not functioned and that no adjustments on the grounds that master schedule prices permitted contractors to earn excessive profits have been made.

‘The Audit Office was represented at several conferences of departmental officials on the matter mentioned in the foregoing paragraph, and as a result of exchange of views, I am of the opinion that the authority given by Section 2 of the Finance Act (No. 3) 1943, ² to investigate Government contracts is unlikely to lead to the adjustment of excess profits unless such adjustment is specifically provided for in the relative contract itself. It appears, therefore, that the value of the statutory power to investigate will lie mainly in the direction of securing information which may enable Government Departments to negotiate future contracts on terms more favourable than might otherwise have been secured.’

Because of the failure of attempts to investigate war contracts, review procedures generally seem to have been less effective in New Zealand than in a number of other countries. ³

¹ B-1 [Part II], 1945, p. xix.

² See also p. 355.

³ In the **United States of America**, for example, ‘Total War Department recoveries from corporations (with minor exceptions), which accounted for 89 per cent of all War

Department recaptures under renegotiation, amounted to £6.6 billion'.—R. Elberton Smith, *The Army and Economic Mobilization*, p. 369. £6.6 billion represented 3·9 per cent of the **United States national income, so was equivalent to £13 million in New Zealand.**

WAR ECONOMY

HIGH PROFITS

High Profits

For most industries there was no clear picture of the upsurge in wartime profits, except in a few isolated instances where government officers succeeded in completing investigations. Company incomes generally increased 80 per cent between 1938–39 and 1943–44, a period when the national income increased by 66 per cent,¹ but there was no industrial subdivision of these figures for the war years.

More detailed information was available for manufacturing from the Annual Statistical Reports on Factory Production, and one writer, **J. W. Williams**,² has made an analysis which shows clearly the effect of higher wartime turnover in raising profits. The following figures are adapted from one of his tables.³

'True Manufacturing'

Manufacturing industries, exclusive of primary processing, semi-extractive, and public utilities

<i>Year</i>	<i>Output</i>	<i>Surplus (Gross Margin Minus Overhead Expenses)</i>	<i>Surplus as a Percentage of Output</i>	<i>Surplus as a Percentage of Capital Assets</i>
	<i>£(m)</i>	<i>£(m)</i>	<i>Per cent</i>	<i>Per cent</i>
1937–38	46·89	5·16	11·0	22·0
1938–39	47·85	4·93	10·3	19·5
1939–40	54·73	5·88	10·7	21·4
1940–41	64·95	6·95	10·7	23·0
1941–42	72·69	8·28	11·4	27·7
1942–43	79·86	9·80	12·3	32·4

The very substantial rise in surplus as a percentage of capital assets occurred in spite of a slight falling tendency in the ratio of gross margin to output. Williams rightly qualifies his results, but, in spite of all necessary qualifications, one impression clearly emerges. To use his words, 'It appears that savings in overhead gained from a large increase in turnover have not been passed on'.

Unusually high profit earnings, resulting from some firms keeping for themselves all or most of the benefits of increased turnover, were only one of the causes of criticism of war contracts. Had this been the only weakness, the benefits which emerged from the quicker start on jobs might well have outweighed it. Extra profits from higher turnover were to be expected and reasonable increases

¹ National Income Statistics, *New Zealand Official Yearbooks*.

² *The New Zealand Economy in War and Reconstruction*.

³ p. 50.

would have been difficult to condemn. ¹

High profits which resulted, under some forms of contract, from charging the same flat percentage mark-up on overtime as on ordinary time were rather more difficult to defend. Overtime did not lead to a proportionate increase in overhead, and some firms recovered several times their actual overhead costs by this method of charging. Here is an example of what actually happened in a particular case: ²

The award rate was 3s. per hour and the full charge-out rate was 5s. 6d. per hour, calculated as follows:

	<i>Pence</i>
Award rates for carpenters and shipwrights	36·00
Plus 7 ½ per cent allowance for above-award rates	2·70
Plus overhead	21·342
	—
	60·042
Plus profit 10 per cent	6·0042
	—
	66·0462

For overtime the firm charged out 1 ½ times or double this rate, i.e., 8s. 3d. or 11s. per hour worked. That is, apart from the extra profit allowance on the overtime, it was recovering overhead at 32·0 pence per hour or 42·7 pence per hour, as compared with the above rate of 21·3 pence per hour. Moreover, the allowance of 21·3 pence per hour was calculated on a basis which would recover the full normal overhead costs of the firm in a 40-hour week. Overtime working would occasion some extra costs, but a substantial proportion of overhead items would remain fixed.

High profits arising from wrong measurements or from practices such as charging for apprentices at journeymen's rates were indefensible. In many cases, but by no means all, they led to refunds when charges were checked.

It is interesting to note that the Master Builders' Federation, when withdrawing its support from the Contracts Adjustment Commission, wrote on 23 August 1944 that the Federation was prepared to render 'whatever assistance is within its power to facilitate the adjustments of any payments that may have been made in error or as a result of the misapplication of the master schedule', but that the Federation was of the opinion that taxation

¹ However, some of the firms which showed the more spectacular increases in profits from higher turnover must have had an extremely wasteful overhead structure in peacetime if they were not profiteering in wartime.

would take care of the extra profits earned as a result of increased turnover, 'taxation having been specifically designed for that purpose'. ¹

This last reference no doubt referred to the Excess Profits Tax Act 1940, which set a rate of taxation of 60 per cent on profits in excess of a standard annual profit. ² The rate was increased to 75 per cent in 1942. Despite the apparently sweeping nature of this Act, collections of excess profits tax averaged less than £500,000 a year. In any event, the terms of reference of the Contracts Adjustment Commission had included the following statement: ³

'As regards any suggestion that the position is remedied by taxation, it is considered that this is fallacious. If adjustment of taxes is necessary as a result of the Commission's operations this may be adjusted by the contractor submitting an amended return to the Commissioner of Taxes, who will make a refund where necessary.'

High profits on war contracts must have been for several years the worst breach in the economic stabilisation scheme's defences against inflation. The contrast between increases in incomes derived in many cases from these profits and increases in stabilised incomes such as wages was most striking.

Stabilisation was tolerant to extra pay for extra work or for extra responsibility, and should therefore have been tolerant to reasonable extra profits for extra turnover. But where, for example, extra turnover led to charging the usual flat percentage rates for overhead on extra wage costs, this meant that firms were being paid again for overhead costs which they had already recovered in full. ⁴ This was in fact a weakness in many wartime contracts, and resulted in windfall profits over and above the full profit allowance already made for the extra work. Profits of this nature were almost certainly not intended when contracts were drawn, and were contrary to the spirit of the Stabilisation

¹ **Official History of the Public Works Department, Vol. I, p. 276.**

² **The 60 per cent excess profits tax was reduced by the amount of income tax and social security charge already paid on the excess profit.**

³ **Cabinet approval of 28 January 1944 on [Ministry of Works file 32/483/2](#).**

⁴ **Extra wage costs would lead to some extra overhead costs but the increase was by no means proportionate, especially when the extra wage costs were at overtime rates. See also [p. 360](#).**

WAR ECONOMY

INCENTIVES TO INEFFICIENCY

Incentives to Inefficiency

High profits under war contracts were inequitable in a country where rigid stabilisation had been accepted by some other groups of income earners. Weighing much more heavily against the special wartime contracts was the fact that many of them did not make for speed in completing work. Contracts which provided for payment of labour and costs of materials plus a percentage provided an incentive to inefficiency and spinning out the job. The higher the cost of the job the higher the profit mark-up would be. The incentive for the contractor to save labour time, to conserve materials or to watch wage rates, materials prices and sub-contractors' costs was gone. In fact any increase in these costs profited the contractor. He received his mark-up on the extra cost. Contracts of this type may well have speeded the allocation of work—for a time some contractors would accept nothing else. They were not designed to hasten the completion of the work.

While pressure of work was at its height, most of the modifications of the cost-plus types of contract did not succeed in removing their fundamental weakness. Attempts to improve wartime contracts involved, for the most part, forward estimates of costs, or at any rate of the profit element in them. The purpose was to avoid the disincentive effect of basing profits on actual costs and, if possible, to provide a profit incentive to keep costs within a fixed figure. Even where contractors were amenable, these attempts usually broke down, either because there was insufficient staff to make forward estimates or because forward estimates proved to be so wide of the mark that adjustments had to be made before the work was finished. Master schedules for defence construction work lost much of their effectiveness in the many cases where quantity estimates were not entered in advance. Target prices for ship construction work were often so far removed from actual costs that

contract arrangements had to be adjusted before payment was made, a process which destroyed the original relationship between efficiency and profit.

WAR ECONOMY

SLACKENING OF PRESSURE GIVES MORE TIME TO CHECK CONTRACTS

Slackening of Pressure Gives More Time to Check Contracts

The unprecedented volume of war contract work combined with shortages of departmental staff due to military recruitments often made adequate forward estimates of quantities and costs impossible. It was the absence of these estimates which led to most of the abuses of wartime contracts. In many cases abuses continued unchecked, because there was inadequate supervising and checking staff to watch progress of work and to examine claims. It was not until the rush of work started to taper off in 1944–45 that there was sufficient breathing space to make really adequate checks on contractors' quantities and costs. By then much of the evidence needed for proper checking had gone.

Abuses of wartime contracts were by no means universal, but they were nevertheless widespread.

In building and construction work investigation revealed considerable overpayment as a result of contractors entering wrong quantities in the master schedule. ¹ One remeasurement resulted in a payment of £228,000 being reduced to £197,000, a difference of £31,000.

As a result of investigations an offer was made by five contractors, in August 1945, to refund £5561, while in December of the same year the Public Works Department advised another five contractors that defence construction contracts they had carried out had been remeasured and refunds of overpayments were sought ranging from £2800 to £17,000.

In other cases evidence was found of timber being moved from job to job and the records becoming muddled.

These discrepancies were coming to light at the stage where the

volume of defence construction work was falling and the Public Works Department was able to catch up on its work of checking defence contracts. Defence construction work, after costing over £17,000,000 in 1942–43, and over £13,000,000 in 1943–44, fell to just over £5,000,000 in 1944–45.

Checking back on contracts let during the rush period was becoming increasingly possible and a number of other refunds were made by contractors, some of large and some of small amounts. However, reviews of contracts and discovery of abuses, at this stage, did not always lead to refunds. Entry of excessive quantities on claims, though often suspected, was, with the passing of time, becoming more difficult to prove, while evidence of profits far in excess of those contemplated when contracts were drawn did not always give grounds for legal action. Nevertheless other countries succeeded in reviewing war contracts and an attempt was made in New Zealand. Success here was very limited. ²

¹ To put these into perspective, the total value of contracts let under the master schedule was estimated at £15 million. See p. 357.

² See for example p. 357.

WAR ECONOMY

WHAT IS TO BE LEARNED FROM EXPERIENCE?

What is to be Learned from Experience?

To sum up the problems facing those who were responsible to get war work done in the most difficult years:

- (The volume of work to be done was quite unprecedented.
a)
- (Urgency was paramount for a time.
b)
- (Productive capacity was saturated.
c)
- (Much of the work was new—there was insufficient experience to
d) provide a basis for forward estimates.

It must be conceded by critics of the looser system of contracting that the normal peacetime system of competitive tendering had broken down over a large portion of the economy. Possibly the abandonment of this tendering system was hastened when contracting firms realised that they were likely to make higher profits under more loosely drawn wartime contracts. However, with such a high pressure of demand on the private enterprise economy, competitive tendering could not have been expected to be really effective in protecting the Government against excessive charging. In other words, the Government was probably going to have to face excessive charging in any case, unless Departments were able to have all the work done under their own direct control by their own staff.

Direct Government supervision of work does not always produce results superior to the system of contracting with private enterprise, although there are some notable instances where it does. In any case, the Government was just as short of good supervising staff as was private enterprise. Recruitment of over a quarter of the labour force for the armed services had had its effect. In fact, the excessive costs of some wartime contracts arose as much from poor supervision on the job

as from muddlement or dishonesty by contractors.

On the whole, it was preferable to work in partnership with private enterprise firms rather than to take them over, but this, in wartime, needed to be accompanied by much more self-discipline on the private enterprise side. As it was, the profit motive seems to have been left with too much liberty altogether, having regard to restrictions put on other sections of the community. The profit motive cannot be condemned out of hand, but one example of the profit motive on the rampage was the refusal of some firms to accept any type of contract which required efficient working as a prerequisite for extra profit.

It is an interesting contrast that, while the Government made full use of its powers to direct men into firms doing essential work, it was reluctant to use its powers to control labour, materials and production as a means to persuade firms to carry out essential jobs under watertight contract arrangements.¹ Without some measure of coercion the Government was dependent on voluntary acceptance of war contracts, with the result that, when war needs started to strain resources, some firms could virtually dictate contract terms. Any form of coercion to get work done would have had to be accompanied by close supervision, especially if precision work was required. There is, therefore, considerable doubt whether work

¹ However, see footnote 2 on p. 468.

would have been done satisfactorily had firms been coerced into undertaking contracts which they did not want. However, it does seem that the looser forms of contract were too freely available.

Had the Government been in a position to work out suitable systems of wartime contracting in advance of the event, and had it had the firmness to stand by those arrangements and insist that they apply to all jobs, work might well have been done more efficiently and more speedily. In the event, many private contractors got the bit between

their teeth.

In cases where forward estimates of job content were impracticable, for instance in some types of ship repair work, there were almost insuperable difficulties in the way of providing a profit incentive for efficiency and speed of work. But, is it possible that, given a little more forethought, a much larger proportion of contracts could have been drawn up in a way which would have allowed efficiency and speed to be matched by extra profits? Could the cost-plus type of contract, which put a premium on inefficiency, have been largely avoided?

It was not unreasonable to expect the Government, in a time of excess demand on industry, to provide extra profits to get work done faster and more efficiently. ¹ The criticism of most war contracts was that the Government paid too much extra for an inadequate improvement in efficiency and speed. Sometimes indeed it paid much more while accepting contract systems which tended to yield poorer results.

What of the future? One point which emerges clearly is that the Government should never again contemplate extensive use of cost-plus or similar types of contract, unless contractors are prepared to disclose all their relevant records, not just those relating to Government contracts. Wartime experiences point to the need for **New Zealand Government** departments to have on hand clear plans for special types of contracts which can cope with any situation where high levels of demand and urgency of work may destroy the competitive tendering system. Man seldom learns from history, but perhaps this may be an exception. The abuses revealed in this chapter provide a most explicit lesson on the pitfalls of loosely drawn contracts. There would really be no excuse at all if, in the early years of another national emergency, New Zealand again experienced all the muddlement and uncertainty to which these special types of contract gave rise during World War II.

¹ Though even this conflicted with the initial **Labour Party** view

that in wartime there should be 'no profiteering of any kind whatever' (Walter Nash in September 1939, *NZPD*, Vol. 256, p. 249).

WAR ECONOMY

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WAR ECONOMY

DIFFICULTIES BEFORE THE WAR

Difficulties Before the War

IN the years just before the war, the New Zealand economy had shown a disconcerting propensity to import more goods than could be paid for out of current overseas exchange earnings. This tendency was to be repeated and to become more marked after the war.

The situation was aggravated by the fact that, because of the nature of New Zealand's overseas exchange transactions, she has never been able to maintain a healthy balance of payments position merely by exporting sufficient to pay for her imports. Unless there is to be overseas borrowing, exports must earn enough to pay also for interest on debt owed overseas, expenditure by New Zealand tourists abroad, and a number of other items of this sort, known as invisibles, where New Zealand's commitments considerably exceed what she receives on a similar account from other countries. The net annual cost of these invisible items was approaching £10 million at the outbreak of war. These amounts were an annual charge on export earnings which then averaged about £60 million a year.

In the years 1933 to 1937 there had been comparatively little change in volume of exports; 1936 and 1937 were record years but were still only a little above 1933. However, prices were rising in 1936 and 1937. As a result of the improved prices, the value of exports in 1937 was 63 per cent above 1933.

Imports had risen to keep pace with export earnings, but were reluctant to fall when export earnings decreased. When, in 1938, the volume and price of exports both fell, causing a drop of over £8 million in earnings, imports were reduced by less than £1 million.

Export prices declined up to late in 1938 and, with continued high

importing, there remained insufficient export earnings to cover other payments. The overseas assets of the banking system fell by over £20 million in the two years 1937 and 1938, to be under £7 million in December 1938. This was a drastically low level.

Import control regulations to conserve overseas funds became effective from December 1938. They were to remain in force throughout the war and into the post-war period. The regulations prohibited the import of goods except where a licence had been issued or an exemption granted by the Minister of Customs. Export licences were required also, and were issued on the condition that overseas funds or credits from the sale of goods be sold to a New Zealand bank. Imports fell by £6 million in 1939.

With no recovery in export earnings, the 1939 reduction in importing was hardly sufficient. The position was made even more difficult by overseas loans falling due in January 1940, and by the need of the Government to stockpile strategic materials in preparation for a possible war.

The situation looked desperate, and the **London** money market, which was critical of the Government's financial policy, was unsympathetic. A *Financial Times* leader, dealing with Mr Nash's fund-raising mission to **London**, stated: ¹

‘In view of the difficult external debt problem of New Zealand, the arrival of Mr Nash is greatly welcomed. The real problem of the Dominion's credit is that behind the exchange situation lies a record of expensive social reform, public works, and guaranteed prices for dairy produce.

‘The first essential should be a slowing down of expenditure on social and economic reform in order to give the maximum effect to the present import control, but Mr Nash is apparently convinced that import control alone will be sufficient.’

Nevertheless Mr Nash, in July 1939, succeeded in negotiating the

conversion of loans of over £17 million sterling which would otherwise have fallen due for payment on 1 January 1940. To get this much-needed relief, he was forced to agree to conditions which would have been unacceptable in less straitened circumstances.

The 1940 *Official Yearbook*² includes, as part of the terms of issue of £16 million of the replacement stock:

‘The Government has undertaken to provide for redemption of this stock by making available in **London**, out of funds accruing from exports from the Dominion or otherwise, sufficient sterling to repay the whole of this issue by 1st January, 1945, by half-yearly instalments of £1,000,000 during 1940 and £1,750,000

¹ Reported in the *Dominion*, 1 June 1939.

² p. 602.

thereafter, payable on or before 30th June and 31st December in each year.’

This stringent repayment provision was new to New Zealand.

In spite of the discouraging reaction from the **London** money market, Mr Nash was able to arrange short-term credits from the United Kingdom Government. On 1 August 1939 Mr Savage said in Parliament:

1

‘Our position generally has been eased and more time for necessary economic adjustments secured as a result of Mr Nash's successful negotiations in **London**, and I would like to take this opportunity on behalf of the Dominion of thanking the Imperial Government for the help they have given us. As honourable members are aware, this help takes the form of £5,000,000 sterling of export credits at 4 ½ per cent interest with a currency of five years for Government imports from the

United Kingdom and £4,000,000 sterling of short term credits for commercial purposes. Both classes of credits are available for the purchase of British goods. Government imports at present are being swelled by material for our defence forces, and a considerable portion of the credit granted for Government purposes will be utilized for this purpose.'

¹ Financial Statement, Parliamentary Paper B-6, p. 2. Mr Savage was Prime Minister and acting Minister of Finance.

WAR ECONOMY

BULK PURCHASES OF FARM PRODUCTS

Bulk Purchases of Farm Products

Markets for meat, butter, cheese and wool were, as far as was possible under war conditions, assured by the bulk purchase arrangements with the [United Kingdom](#).² The United Kingdom was concerned primarily with safeguarding her own supplies of food. She needed all New Zealand could produce of most commodities. Indeed, for much of the war period she was urging New Zealand to step up production.

Over the war years, New Zealand's volume of exports averaged about 1 per cent above the average for the years 1936 to 1938. Under normal conditions this small increase could not have been considered particularly satisfactory. Even allowing for Reverse Lend-Lease supplies, which were not recorded as exports,³ it was disappointing in the years when British foodstuffs were severely rationed. However, the great bulk of New Zealand's exports came from the farms, and reference has already been made to the shortage of labour and the interruption to supplies of fertilisers and other farming requirements which tended to hamper farm production.²

Chapter 8.



LOADING BUTTER FOR EXPORT

Exports of food were New Zealand's outstanding contribution to the Allied economic war effort

LOADING BUTTER FOR EXPORT

Exports of food were New Zealand's outstanding contribution to the Allied economic war effort

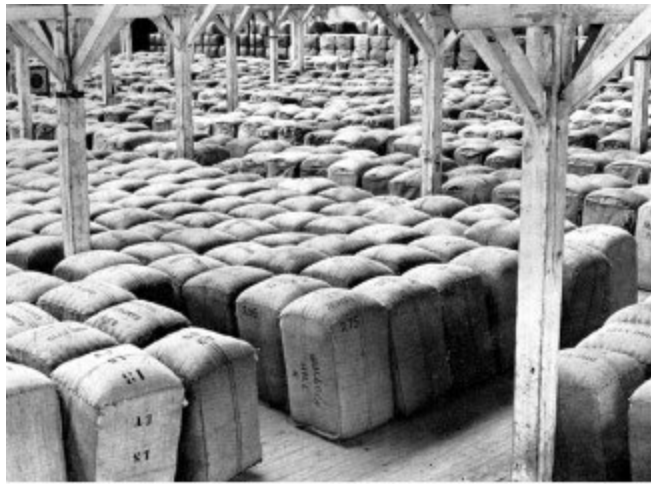


SAVING SCARCE
SHIPPING SPACE

Telescoping lamb carcasses to make the best use of reduced refrigerated shipping space

SAVING SCARCE SHIPPING SPACE

Telescoping lamb carcasses to make the best use of reduced refrigerated shipping space



UNSHIPPED WOOL

By the end of the war stocks of wool in New Zealand were equivalent to a full year's production

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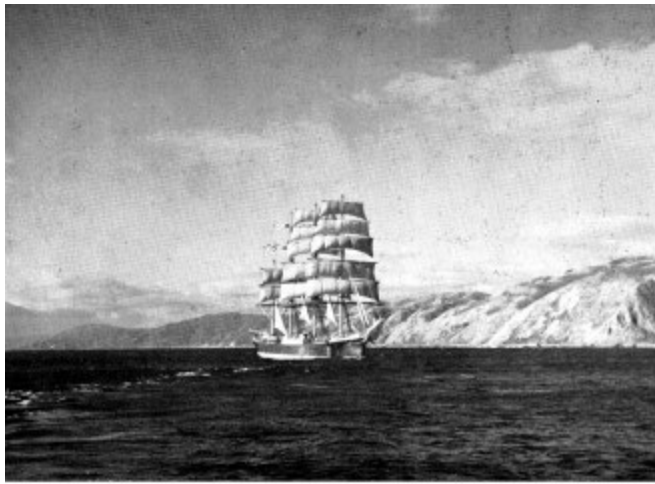


THE *Port Bowen* AGROUND NEAR WANGANUI, 1940

Her refrigerating equipment was salvaged to augment scarce cool-store facilities

THE *Port Bowen* AGROUND NEAR WANGANUI, 1940

Her refrigerating equipment was salvaged to augment scarce cool-store facilities



SHIPPING SHORTAGES

The barque *Pamir*, seized as a prize in 1941, was a valuable addition to New Zealand's depleted shipping

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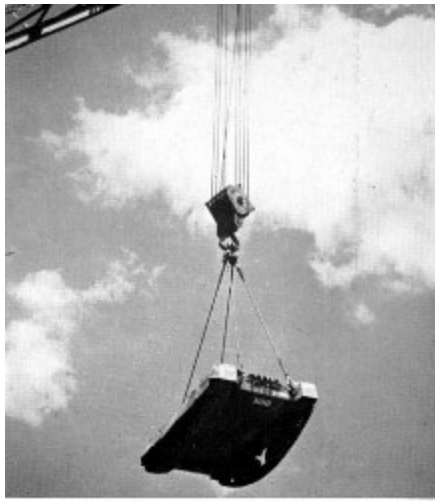


RECIPROCAL AID AGREEMENT, UNITED STATES - NEW ZEALAND

Seated from left to right: Sir O. Dixon, Australian Minister to U.S.A.; Viscount Halifax, British Ambassador; U.S. Secretary of State, Cordell Hull; Rt. Hon. W. Nash, New Zealand Minister to the U.S.A.

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WAR SUPPLIES FROM OVERSEAS
Wellington Harbour Board's floating crane *Hikitea* unloading a tank from the *Akaroa*

WAR SUPPLIES FROM OVERSEAS

Wellington Harbour Board's floating crane *Hikitea* unloading a tank from the *Akaroa*



PREFABRICATED BUILDINGS IN THE PACIFIC
Troops unloading New Zealand prefabricated buildings 'somewhere in the Pacific'

PREFABRICATED BUILDINGS IN THE PACIFIC

Troops unloading New Zealand prefabricated buildings 'somewhere

² See also

Chapter 8.

³ See also p. 377 for a discussion of the effect of supplies to United States forces.

WAR ECONOMY

THE ENEMY TRADING EMERGENCY REGULATIONS

The Enemy Trading Emergency Regulations

Regulations issued on 4 September 1939 prohibited all trading with the enemy, except with the permission of the Minister of Industries and Commerce.

Wool was the only major export item seriously affected, but New Zealand was protected by the bulk purchase arrangement with the **United Kingdom under which her entire surplus would be purchased. Reference has been made to the stockpiling of Commonwealth wool supplies which were cut off from enemy destinations and were in excess of allied requirements. ¹**

An interdepartmental committee was set up to assist the **Industries and Commerce Department in administering the regulations. It dealt with efforts to obtain deliveries of goods destined for New Zealand but laden on enemy ships which had taken refuge in neutral ports, and with applications for licences to import goods of German origin from various sources.**

WAR ECONOMY

EXPORT VOLUMES

Export Volumes

Chart 65 shows changes in the volume of New Zealand's exports from 1936 to 1947.

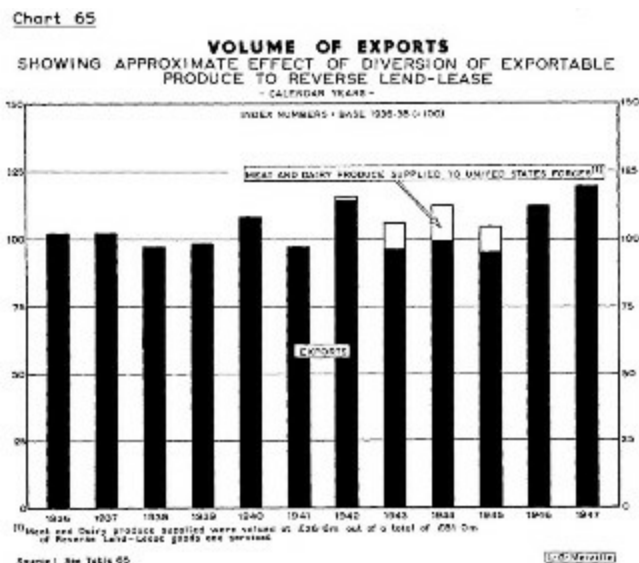


Chart 65

VOLUME OF EXPORTS

SHOWING APPROXIMATE EFFECT OF DIVERSION OF EXPORTABLE PRODUCE TO REVERSE LEND-LEASE

Export volumes rose to a record level in 1940, when the **United Kingdom** was building up food reserves and there was an exceptional increase in the quantity of frozen meat exported. Cheese exports were also a record in this year. The following year saw a very substantial drop in the quantity of wool exported and the volume of exports overall fell to 1938 levels. In 1942, however, export volumes, aided by a full recovery for wool, a partial recovery for frozen meat, and record exports of cheese, moved 5 per cent above the previous record level attained in 1940; this in spite of the fact that **United States** forces, first seen in New Zealand in substantial numbers in June 1942, were eating considerable quantities of New Zealand food.

For the next three years, 1943 to 1945, with the **United States Forces** in New Zealand and the **Pacific** taking larger quantities of foodstuffs, the recorded volume of exports fell to modest levels. The position was influenced also by the fact that wool exports were low during each of these three years. With wool production exceeding allied requirements, its shipment was not urgent. ¹

An interesting wartime development was the upsurge of exports of manufactured articles, which prior to the war had been valued at under £1 million a year. A good proportion of these extra manufactured goods went to the **Mediterranean** area, where about three-quarters of New Zealand's overseas forces were serving. Another important destination was **India**, the headquarters of the **Eastern Group Supply Council**. ² Demands by the armed forces for clothing, footwear, fire-fighting appliances, hardware, electrical goods, wireless receivers and transmitters, and ordnance and other supplies, pushed the value of exports of manufactured goods to over £4 million by 1943, and to £13 million in 1944. These exports were valued at £8 million in 1945, and between £3 million and £4 million in each of the years 1946 and 1947.

Reverse Lend-Lease supplies, valued for the whole of the war at £81 million, were excluded from export figures. From the point of view of reciprocal aid they helped to keep the balance against the Lend-Lease supplies which were flowing in from the **United States**. However, the record of wartime trading is distorted by inclusion of much of the inflow as imports, while the outflow did not affect the export figures. Approximately two-thirds of all food-stuffs supplied to the **United States Forces** were shipped out of New Zealand by them without being recorded as exports. At a rough estimate these unrecorded food exports may have been worth some £25 to £30 million. Large numbers of prefabricated huts and other supplies from New Zealand were similarly treated.

Supplies for New Zealand forces overseas were usually recorded as exports, though some supplies sent direct to New Zealand forces were excluded. While not themselves exchange earners, all these exports

helped to reduce the direct cost in foreign exchange of maintaining New Zealand forces overseas.

¹ See also

Chapter 8

² An Indian official war history gives a detailed list of items in the £17.0 million (Stg.) of supplies from New Zealand. (N. G. Sinha and P. N. Khera, *Indian War Economy*, p. 420.)

WAR ECONOMY

RESTRAINT ON IMPORTS

Restraint on Imports

After being low in 1939, export prices rose steadily throughout the war years and, in spite of the disappointingly small increase in export volumes, the value of all wartime exports averaged a fifth higher than in the three pre-war years.

Import prices rose too. In fact they rose much more rapidly than export prices. However, until 1943, import volumes were very low, payments remained moderate, and there was a progressive improvement in the overseas assets of the banks, which had been at such a low level at the end of 1938. Annual imports throughout the war years averaged one-eighth less in volume than in the three pre-war years.

Though import licensing was severe, and, before Lend-Lease, shortages of hard currencies severely curtailed ordering in the **United States and **Canada**, neither import controls nor lack of purchasing power should bear too much of the blame for the low rate of importing in the early war years. Supplies were restricted also by lack of shipping and by the inability of overseas suppliers to fill orders. These restrictions were often most embarrassing from the supply point of view, but the burden of import payments was considerably reduced by the slower inflow of imports.**

In 1943, when a considerably increased supply of imports did become available, two-thirds of the extra goods came as Lend-Lease and did not involve payments for foreign exchange. Even in this year of record importing there was a small increase in the overseas assets of the banking system.

WAR ECONOMY

IMPORTS OF DEFENCE MATERIALS

Imports of Defence Materials

Under stress of war, nearly a quarter of all import arrivals were defence materials. In the seven years 1939 to 1945, imports of defence materials were valued at just over £105 million out of total imports valued at £438 million. The heaviest influx of defence materials was in 1943 when they reached nearly £47 million, half the value of all imports in that year.

The effect of war on the availability of normal imports is shown in Chart 66, where the volume of imports has been subdivided to show the approximate portion which was represented by defence materials.¹

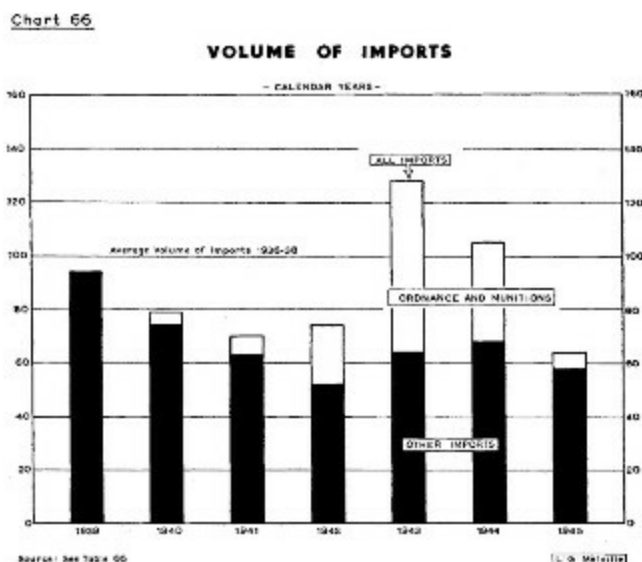


Chart 66
VOLUME OF IMPORTS

¹ A finer subdivision of imports, in current prices, is given in Chart 30 on p. 130.

WAR ECONOMY

SHIPPING

Shipping

In the early war years the availability of shipping for the New Zealand trade was determined largely by the emphasis the **United Kingdom** chose to place on its bulk purchases of New Zealand farm products.

The New Zealand trade had always been dependent on British shipping and, in the years 1935 to 1939, British shipping represented approximately 77 per cent of the total tonnage of all arrivals in New Zealand. Immediately war began all British shipping was requisitioned and became subject to the direction of the **British Ministry of War Transport**. Shipping would have to be used where it could make the most effective contribution to wartime needs. This would not necessarily always include using it for the long haul to New Zealand.

Though New Zealand was spared the immediate interruption of her sea traffic which might have occurred had **Japan** entered the war from the start, there were losses of shipping as a result of enemy action right from the first months of war. It was this form of attack which brought the war closest to New Zealand shores, when, on 19 June 1940, the liner *Niagara*, sailing from **Auckland** to **Suva** and Vancouver, struck two mines laid by a German raider, and sank in the approaches to **Hauraki Gulf**.¹

Many other ships trading to New Zealand fell victim to enemy action; for example sixty-four ships, representing 631,000 tons gross register, engaged in the New Zealand refrigerated cargo trade were lost.² However, the most drastic threat to New Zealand's overseas trade was not so much a direct attack on ships carrying her own produce and her own imports as the general depletion of allied shipping, which left an inadequate fleet for all the haulage which had to be done.

The major shipping losses were inflicted in the **Atlantic** and their importance was stressed by Churchill in a statement on 9 April 1941: ³

‘But, after all, everything turns upon the Battle of the **Atlantic** which is proceeding with growing intensity on both sides. Our losses in ships and tonnage are very heavy, and, vast as are our shipping resources which we control, the losses cannot continue indefinitely without seriously affecting our war effort and our means of subsistence.’

Allied shipping losses were at their highest in the first half of 1942. In that year 1665 allied or neutral ships were sunk, involving nearly eight million gross tons. November 1942 was the worst month of the war. In this month 900,000 tons of allied shipping was sunk.

There were some bad months in the early part of 1943, but by then the Allies were starting to strike back more effectively. By early 1943 the destruction of U-boats was having its effect, and in May 1943 U-boat losses averaged one a day. ⁴ In the second half of 1943 the shipping situation took a marked change for the better.

Losses of merchant shipping under British control had amounted to nearly 11 million gross tons in the war period up to March 1943.

¹ She was carrying gold valued at some £21/2 million, most of which was recovered from a depth of 483 feet in a remarkable feat of salvage in 1941. A tribute to the salvage operation is paid by Capt S. W. Roskill, DSC, RN, in *The War at Sea, 1939–1945*, Vol. I, p. 282.

² Parliamentary Paper H-30, Report of the Marketing Department (Export Division), 1945, p. 40.

³ Quoted by S. D. Waters in *Ordeal by Sea*, p. 100.

⁴ Waters, *op. cit.*, p. 197.

This was equivalent to over half the shipping under British control in the first year of war. Since September 1940, losses had much more than cancelled out gains from various sources, the net loss being 3 ½ million tons. Shipping under British control was brought to the dangerously low level of under 18 million tons in March 1943. It was to build up to close to 21 million tons in the next two years.

Losses had included refrigerated cargo space which was vital for the long haul of New Zealand perishable produce to the **United Kingdom**. Refrigerated shipping was difficult to replace when the emphasis was on a quick completion of new vessels to replace losses due to enemy action. This, and the tendency to concentrate available shipping on the shorter **Atlantic** haul, increased New Zealand's trading difficulties. Her reaction to the reduction in numbers and tonnage of vessels arriving at New Zealand ports was to strive for a more efficient use of cargo space and a quicker turn-around of vessels. Carcasses were telescoped and shipping space was allocated to the most urgent supplies. Early in the war the United Kingdom Government decided that scarce space could not be spared for the shipment of fruit from New Zealand, a decision which created the difficult problem of disposing of surplus fruit on the already well supplied New Zealand market. ¹ The switch of emphasis in dairy production from butter to cheese, and later back to butter, ² was also considerably influenced by shipping needs and the varying availability of foodstuffs on the shorter haul from **North America**.

An interesting sidelight on New Zealand's shipping shortage was thrown by the use of the barque *Pamir*, a Finnish ship which had been seized as a prize of war following her arrival at **Wellington** in July 1941. ³ *Pamir*, in January 1942, made her first trip under the New Zealand flag to **Pacific** ports of **North America**. Her cargo was wool and tallow and she brought back wheat. On later trips she returned laden with coal.

Because of the scarcity of shipping it was not difficult to find cargo, and her first three trips brought a profit of £45,000. The gradual improvement in the shipping position was reflected in the results of the

seven remaining voyages. On all except two of them she sailed at a loss.

Pamir under sail was a stirring sight. Her arrivals and departures created considerable public interest. She was eventually handed back to the Government of **Finland** in 1948.

¹ See also p. 216.

² Chapter 8.

³ This in spite of the fact that there was no formal declaration of war with **Finland** until December.

From 1942 **United States** ship construction was stepped up, a feature being the standardised, rapidly constructed Liberty ships, of which 2700 were produced during the war. In 1943 and 1944 the extensive use of American ships for Lend-Lease supplies considerably eased the shipping problem for New Zealand. Before the war **United Kingdom** registry tonnages cleared from New Zealand ports were four times the American, but 1943 was unique in that more American than **United Kingdom** shipping was cleared. By this year **United Kingdom** tonnages had fallen to less than half the level before the war, while **United States** tonnages had doubled. This was a reflection of changes in the world shipping situation. **United States** shipping had not been under intensive attack until later in the war; she was able to recover earlier. A **United States** history records, ¹ 'During the last quarter of 1942, ship production for the first time topped ship destruction by enemy action, and marine casualty.' On the other hand Churchill wrote, ² 'During 1943 the curve of new tonnage rose sharply and losses fell. Before the end of that year new tonnage at last surpassed losses at sea from all causes, and the second quarter saw, for the first time, U-boat losses exceed their rate of replacement.'

American tonnages in New Zealand ports were quite high again in

1944, but fell away in 1945, when **United Kingdom** tonnages started to increase rapidly. By 1946 British ships were arriving in the same tonnages as before the war, but **United States** tonnages had declined to well below the pre-war level.

¹ Samuel Eliot Morison, *History of United States Navy Operations in World War II*, Vol. I p. 294.

² *The Second World War*, Vol. V, p. 4.

WAR ECONOMY

VOLUME OF TRADE

Volume of Trade

The following table revalues wartime trade at the average prices ruling for the three pre-war years 1936 to 1938 and gives a good impression of the change over the war years in the volume of total trade. Imports, as shown in this table, include Lend-Lease supplies and other defence imports. Exports, however, do not include reverse Lend-Lease goods, which were supplied to the American authorities in New Zealand and either used here or shipped by them to the **Pacific** in their own vessels. On average, the recorded volume of total trade during the war years was about 5 per cent below the years 1936 to 1938.

VOLUME OF TRADE

(Values expressed in 1936–38 prices) £(m.)

— *Exports Imports Total Trade*

1936	62	46	108
1937	61	55	117
1938	59	54	113
1939	59	49	109
1940	66	41	107
1941	59	37	95
1942	69	38	107
1943	58	66	124
1944	59	55	114
1945	57	33	90
1946	67	39	106
1947	71	60	132

WAR ECONOMY

BETTER USE OF SHIPPING SPACE

Better Use of Shipping Space

Tonnages of vessels hauling New Zealand's overseas trade averaged 2·3 million net tons a year during the war as compared with 3·0 million net tons in the three years 1936 to 1938. This was a reduction of nearly a quarter in shipping space reaching New Zealand each year. These vessels carried a volume of cargo only 5 per cent lower than before the war. The export cargo was slightly higher and the import cargo 12 per cent lower. As a rough approximation, some 30 per cent more export cargo was put into each net ton of shipping space, while 15 per cent more import cargo arrived in each net ton of shipping space. ¹

¹ Some of the methods of economising in the use of shipping space are discussed in

WAR ECONOMY

QUICKER TURN-ROUND OF SHIPS

Quicker Turn-round of Ships

By 1944 the annual tonnage of shipping arriving from overseas had fallen to 60 per cent of its 1936 to 1938 average level. Not only were fewer vessels coming, but they were spending less time around the New Zealand coast. Fewer ports were visited, and attempts were made to speed up cargo handling. Some impression of the reduction in numbers of ports visited by overseas vessels can be gained by comparing tonnages of all overseas vessels entering any port with tonnages of those entering their first New Zealand port. This indicates a fall from an average of 3·4 ports of call in New Zealand before the war to 1·8 by 1944. Consequently, while overseas shipping reaching New Zealand fell in tonnage to 60 per cent of its level before the war, overseas shipping handled in all ports fell by 1944 to only 37 per cent of pre-war tonnage. This reduction in the handling and coastal movement of overseas vessels made a material contribution to the more economical use of the seriously reduced tonnages of shipping at the disposal of the allied nations.

¹Warships of all kinds are excluded.

NET TONNAGE OF OVERSEAS VESSELS ENTERING NEW ZEALAND PORTS ¹

<i>Year</i>	<i>Counting Only Vessels Entering Their First New Zealand Port(millions of tons)</i>	<i>Counting vessels Entering any New Zealand Port(millions of tons) ²</i>	<i>Average Number of New Zealand Ports Visited by Each Vessel ³</i>
1936	2·9	10·0	3·4
1937	2·9	10·0	3·4
1938	3·1	10·1	3·3
1939	3·0	9·8	3·3
1940	2·8	7·8	2·8
1941	2·3	5·0	2·2

1942	2·3	5·5	2·4
1943	2·1	4·5	2·1
1944	1·8	3·7	2·1
1945	1·8	3·8	2·1
1946	2·1	4·8	2·3
1947	2·1	5·0	2·4
1948	2·1	4·9	2·3
1949	2·4	5·9	2·5

² For example, a vessel which enters three ports has its tonnage counted three times in this column but only once in the previous column.

³ Derived by division of the preceding two columns. Other figures have been published (e.g., on p. 213 of the 1950 *Yearbook*) which are based directly on the number of calls made by each vessel irrespective of tonnages.

WAR ECONOMY

SUPPLIES TO THE UNITED STATES FORCES

Supplies to the United States Forces

Reference has been made to the exclusion of Reverse Lend-Lease supplies from recorded figures for New Zealand's exports. Food supplies alone for the **United States Forces** rose from modest amounts in 1942, to 14 per cent by value of total exports in 1943, and to 21 per cent in 1944, falling back to 16 per cent in 1945. If all goods supplied to the **United States Forces**, under Reverse Lend-Lease, are taken into account, these supplies were equivalent to more than a quarter of all exports for the years 1943, 1944, and 1945. Purchases were made in New Zealand by the **United States Joint Purchasing Board** and either used here or shipped by it in **United States** vessels to their forces in other parts of the **Pacific**.

Food supplied by New Zealand to the **United States Forces** under Reverse Lend-Lease was valued at over £41 million, while all Reverse Lend-Lease goods and services were valued at £81 million, both these estimates being at the stabilised New Zealand prices. Over half of these supplies were sent out of New Zealand. ¹

A war correspondent gave a first-hand account of the flow of New Zealand food to the **Pacific** theatre: ²

‘This ship in which I am travelling used to carry **West Indies** fruits to the **New York** markets. Today her chilly holds are regularly packed with New Zealand beef, mutton, bacon, ox livers, eggs, butter, cheese, apples, and green vegetables destined to make more attractive menus for the Allied army, navy and air force in hundreds of camps and battle stations. The eggs your grocer could not let you have last week may today be providing a rare treat for a fighter squadron in its steaming jungle camp; the twin of the fresh cabbage whose high price annoyed you may be a luxury beyond all price on the rough wooden mess table of a lonely army

outpost.

‘Never before has so much or such a variety of New Zealand's farm and market garden produce flowed overseas as in this year of the war, and never before has the Pacific seen a food problem comparable with that of feeding the United Nations’ forces which defend it. New Zealand trade names stamped on carcasses, tins and boxes, mingle with those of American food companies as far toward Japan as Guadalcanal. Great storehouses are stacked to the roof in the morning and empty in the afternoon; Diesel-powered refrigerating chambers set up in places where cold was unknown before run night and day to keep the frozen foods from thawing; ships, trucks and even planes are endlessly engaged in the task of keeping fighting men from going hungry.’

¹ See also p. 387. On p. 272 reference is made to the effect of the diversion of food exports on overseas exchange earnings.

² *Dominion*, 21 April 1943.

WAR ECONOMY

PRICING PROBLEMS

Pricing Problems

The bulk purchase arrangements with the **United Kingdom** for New Zealand's primary products gave a secure market under wartime conditions, but did not make satisfactory arrangements for any regular review of the prices which New Zealand received. Some adjustments were made to prices, but they were small compared with the rise in price of imports into New Zealand.

After December 1942 the stabilisation scheme in operation in New Zealand slowed up rises in costs and enabled New Zealand farmers to produce at the bulk purchase prices. However, with the prices New Zealand had to pay for her imports rising considerably more than the prices she received for bulk purchase of her commodities, the purchasing power of her exports was falling fast. The terms of trade moved against New Zealand quite rapidly in each of the years 1941, 1942, and 1943; and by the last year the purchasing power of a given quantity of exports had fallen to not much more than two-thirds of what it had been in the years 1936 to 1938. The terms of trade were to remain comparatively unfavourable to New Zealand for the rest of the war period, not returning to pre-war levels until 1950.

Because of the need to hold down consumer prices as part of the price-wage stabilisation scheme, stabilisation subsidies to producers were increasingly necessary to offset rises in prices of imported materials. Much of the increasing disparity between import and export prices was becoming a direct burden on the stabilisation scheme.

Apart from the strain on the stabilisation scheme, the balance of payments situation would, under normal conditions, have deteriorated rapidly when faced with the four successive years, from 1940 to 1943, in which prices for imports rose much faster than the prices New Zealand

received for her exports. In the event, the very slow arrival of imports avoided a balance of payments crisis. Imports were held back by the inability of overseas suppliers to meet orders, by interruptions to shipping, and in some cases by import restrictions. Consequently there were trade surpluses in each of the years 1939 to 1942 and, in spite of New Zealand's need to meet payments under the Memorandum of Security in the latter half of this period, ¹ export receipts were sufficient to meet all commitments and to build up the overseas assets of the banking system. By the end of 1942 net overseas assets had increased from their level of under £7 million in December 1938 to over £40 million.

The outlook changed in 1943. In that year the value of imports far exceeded export earnings. A substantial portion of the imports were Lend-Lease goods which did not have to be paid for in overseas exchange, but the unfavourable trade balance was sufficient to bring home to New Zealanders the fact that the terms of trade had deteriorated so badly that exports had lost one-third of their purchasing power. ²

The comparative stability of New Zealand internal prices and costs had matched the stability of bulk purchase prices for the farm products she sold overseas. However, the stability of these latter prices, in face of rising prices overseas, was placing her at a disadvantage, not only with regard to imports which she purchased out of the foreign exchange her exports could earn, but also with regard to the recording of Reverse Lend-Lease items which were her contribution to the reciprocal arrangement with the [United States](#).

With Lend-Lease supplies not having to be paid for in cash, the whole of the trade and other balance of payments transactions for 1943 produced a small surplus which raised the overseas assets of the banks to £46·3 million by the end of the year. Nevertheless the deteriorating relationship of export prices to import prices was considered sufficiently serious to warrant further negotiations with the [United Kingdom](#). As has been observed, the small balance of payments surplus in 1943 was made

possible by reduced private imports. Imports for civilian use had fallen to not much more than half of the average annual volume which had arrived for the years 1936 to 1938. This represented a sacrifice of living standards by the civilian population of New Zealand which was drastic, even by wartime standards, and would become intolerable if continued into peacetime conditions. It became obvious that, if New Zealand allowed the deteriorating relationship between her export and import prices to continue, she would be placed in an impossible position when the war finished and Lend-Lease arrangements came to an end.

In an excellent leading article on 29 February 1944 the *Evening Post* dealt with the problems of price disparities and the resulting discussions in **London**:

‘Discussions are at present taking place in **London** between the British Government and the Minister of Finance (Mr Nash) on the relationship between prices of manufactures sent to New Zealand and the prices received for the Dominion's products. It has been the aim in New Zealand since the war started to endeavour to stabilise prices as far as possible on a pre-war level. When Great Britain agreed to bulk purchase of Dominion products there was no special arrangement for reviewing prices. There have been some adjustments since, but it seems clear from the recent statement by the Minister of Agriculture (Mr Roberts), and confirmed by a subsequent statement by the Prime Minister (Mr Fraser), that prices received by New Zealand for primary produce have not kept pace with prices which this country has had to pay for goods imported from the **United Kingdom**. According to Mr Fraser, the issue was being raised at the time of **Dunkirk**, initial steps having been taken, but it was decided that, when **Britain** was lying almost unprotected, it was not the time to deal with such an issue. Apparently the Government feels that it is now reasonable to reopen the question. One point that should never be overlooked so far as wartime trading relations between Great Britain and this country are concerned is that Great Britain not only agreed to the bulk purchase of our primary products but also provided the transport, and bore all the costs and all

the risks of transport. It is not difficult to imagine the position in which New Zealand would have been placed if it had been left to its own resources. The market would have been there but we would not have been able to reach it.

‘When **President Roosevelt's** Lend-Lease plan was put into operation and schemes were devised for pooling **United Nations'** resources the trading position of this country was affected. We obtained a large proportion of our essential war requirements from the **United States**, and in return we supplied the Forces of the **United States**, under Reverse Lend-Lease, with goods and services. In a report to Congress in November last, **President Roosevelt** described New Zealand, with **Australia**, as the food basket of American forces throughout the South Pacific, and he gave figures showing that in the year ended June, 1943, this country supplied the American Forces, without charge, with more than 170,000,000 lb of foodstuffs. As a result large quantities of primary products that would otherwise have gone to the **United Kingdom** were diverted in order to meet our obligations under Reverse Lend-Lease. In a speech to the House of Representatives in July, 1943, Mr Nash, reviewing the Lend-Lease operations between New Zealand and the **United States**, referred more than once to the fact that the agreement between the two countries made no stipulation as to payment.

‘So far as the negotiations at present proceeding in **London** are concerned, no difficulty need be anticipated in reaching an understanding. They will be satisfactory both to the **United Kingdom** and New Zealand. There are aspects of the Lend-Lease Agreement with the **United States**, however, which should be carefully studied. It is necessary in the interests of reality that there should be a careful tabulation of the exchanges of goods and services between the two countries, so that a complete understanding of the position can be reached. During the debate on Lend-Lease in the House of Representatives in July, questions were raised relating to the supply of goods to the **United States of America** and the point was made that New Zealand should be given consideration for increased costs of primary

produce since the beginning of the war. In his reply, Mr Nash agreed that there was something to be said for that point of view. "I do not want to criticise the **United States of America**," said the Minister, "because they have some very competent economists and other men in the various Departments of that country; but to the extent that any country allows prices to rise above normal levels, which prices are likely to later come down, then there will be a repetition of the disastrous trouble we had in 1929–35. We have a better economic basis in our price-level than in most countries. Because of that, I think there is a question whether the commodities they supply to us should be measured by the same tape as we use in supplying commodities to them."

'Speaking in a "general way" of transactions governed by Lend-Lease, Mr Nash informed the House of Representatives: "There is no agreement for actual payment in cash". But notwithstanding this, it is desirable that transactions should be set out in terms that truly represent the values of goods exchanged. **President Roosevelt** himself has freely acknowledged that current figures do not comply with this requirement. In his report to Congress he said of the statements submitted by British Commonwealth Nations and the translation of pounds to dollars: "This may be misleading because the rate of exchange used cannot, especially under war conditions, always reflect comparable values in terms of purchasing power, manhours of work, or materials." In a word, we are using different measures, and consequently may not show in true perspective the relative worths of efforts and supplies as between ourselves and the nations who help us and whom we try to aid. We must not, of course, stint our aid in any way; ability to aid alone must be our guide. But allowing for this there is every reason—if any statement at all is made—to see that it presents, as near as may be, the actual position. In Mr Nash's words again: "I think there is a good case to make in dealing with the figures between one country and the other. I think that is a case we can legitimately make." Even to avoid future arguments, and arguments prejudicial to future trade, there should be an effort to clarify the position.'

¹ Payments under the Memorandum of Security for March years were, in millions, 1940–41 £1·5, 1941–42 £9·9, 1942–43 £9·3, 1943–44 £11·4, 1944–45 £6·2, 1945–46 £22·5.

² Compared with before the war.

WAR ECONOMY

LUMP SUM PAYMENTS

Lump Sum Payments

The negotiations in **London** resulted in New Zealand receiving a lump sum payment of £15,000,000 in New Zealand currency and further payments of £5,000,000 a year for the following four years. In the Budget statement on 9 August 1945, Mr Nash outlined the further effect of these payments: ¹

‘Funds for the unusually large redemptions from Loans Redemption Account ² came mostly from the lump sum payments, received from the **United Kingdom** under a financial arrangement associated with long term contracts for the sale of our exportable surplus of dairy produce and meat.

‘The agreement reached was announced last year, and honourable members will recollect the provision for the payment of a lump sum of £12,000,000 sterling and £4,000,000 sterling annually for four years to be made by the **United Kingdom** on account of benefits derived from our stabilisation scheme and as compensation for the substantial increase in prices of goods imported from the **United Kingdom**. Actual production costs on the farm or in the factory payable by the farmer are covered in the prices arranged for the produce, but the **United Kingdom** recognised that direct production costs would have been much higher if wages and the cost of living and all the other main items in our economic structure had not been held under our stabilisation scheme at a heavy cost in subsidies, mostly to offset higher prices of imported commodities.

‘An important aspect of the matter was that since the original war contracts for our produce were arranged **United Kingdom** prices for our imports had risen substantially. As the real price we receive for exports is the volume of imports obtainable in exchange, some readjustment was necessary to protect our external position and this was provided in the

lump sum payments.'

It is interesting to notice that the United Kingdom Government accepted the second of these reasons for making lump sum payments, but not the first. Some British critics refused to accept either. Writing on financial policy, Sayers says: ³

'The Chancellor felt bound to record his refusal to accept the "terms of trade argument", but conceded a cash payment of £12 millions in respect of the past and £4 millions a year for the future, as a contribution towards New Zealand's stabilisation subsidies, and in lieu of price increases. Thus New Zealand took the cash and let the doctrine go. The United Kingdom regarded the payment as substantially justified without any dependence upon the unacceptable doctrine, but there was sharp criticism in the Press. Even the Manchester Guardian saw fit to

¹ Parliamentary Paper B-6, p. 10.

² In 1944–45 £6,250,000 of external debt and £15,166,216 of internal debt were redeemed from this account. (Author's footnote.)

³ R. S. Sayers, *History of the Second World War: Financial Policy, 1939–45*. United Kingdom Civil Series, HMSO, 1956, p. 303. Values used are in sterling. £100 sterling was then equal to approximately £125 NZ.

use the headline "A Gift for New Zealand", and the Chancellor felt obliged to make a further statement, in which he underlined the stabilisation subsidies and added that New Zealand's contribution to the common war effort constituted "A very serious problem for New Zealand".'

The New Zealand Government found it expedient internally to favour the same argument as the Chancellor. It was necessary to decide promptly whether these payments were due to farmers as an extra return

for sale of their products or whether they were due to the New Zealand stabilisation scheme which, by holding down farmers' costs, had enabled them to produce at the low prices specified in the bulk purchase contracts. The Government took the latter view.

Continuing his 1945 Budget statement Mr Nash said: ¹

'As borrowing for War Expenses Account had been increased by payment of stabilisation subsidies out of that account and also by the increased prices for war stores bought overseas, the readjustment in New Zealand was made by crediting the lump sum payment of £12,000,000 sterling, and the first payment of £4,000,000 sterling received prior to 31st March last to Loans Redemption Account for repayment of war debt. The whole community will benefit from relief from taxation to the extent it would otherwise be necessary to provide interest and repayment charges on the amount of debt involved.'

¹ Parliamentary Paper B-6, p. 10.

WAR ECONOMY

OVERSEAS ASSETS RISE BY £53 MILLION IN 1944 AND 1945

Overseas Assets rise by £53 million in 1944 and 1945

In 1944 Customs entries again showed an unfavourable trade balance, with imports exceeding exports. However, imports again included a substantial proportion of Lend-Lease supplies ² which did not have to be paid for in foreign currency, but were in effect offset by Reverse Lend-Lease supplies to **United States forces. These supplies, running at about £25 million a year, were not being recorded as exports.**

New Zealand foreign exchange earnings in 1944 were boosted up by the receipt of £19·9 million in lump sum payments from the United Kingdom Government and, in spite of a repayment of £3·7 million under the Memorandum of Security, ³ foreign exchange receipts exceeded payments. The overseas assets of the banks increased by £11·1 million to reach £57·4 million in December 1944.

In 1945 there was a substantial favourable trade balance and, with imports including Lend-Lease supplies, exchange transactions relating to trading were still more favourable. A further lump sum payment was received from the **United Kingdom. Even after meeting a portion of New Zealand's commitments under the Memorandum of Security, £43·2 million remained in balance when all overseas commitments had been met. The overseas assets of the banking system moved up sharply to £99·3 million in December 1945.**

This favourable conclusion to wartime overseas transactions was due to very low private importing throughout the war, assisted by the fact that export prices had risen 14 per cent between 1943 and 1945, bringing some relief from the comparatively unfavourable terms of trade experienced for most of the war. However, it was not until 1950 that the purchasing power of a given quantity of exports returned to the level experienced before the war.

Chart 67 shows changes in overseas assets of the banks.

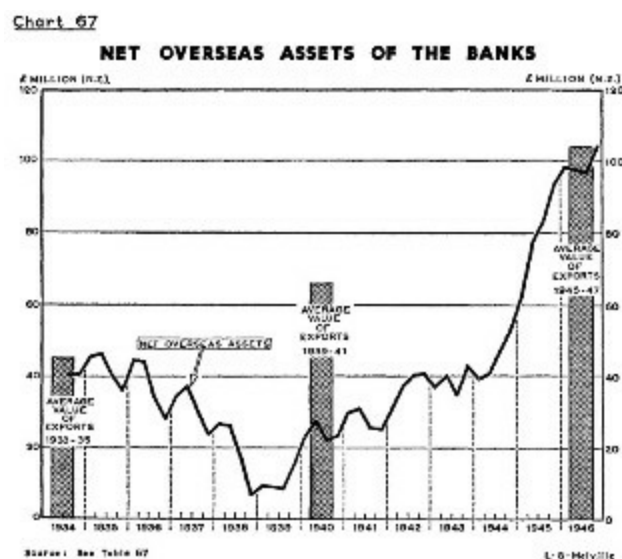


Chart 67
NET OVERSEAS ASSETS OF THE BANKS

OVERSEAS EXCHANGE TRANSACTIONS £ (NZ) Million

	1939	1940	1941	1942	1943	1944	1945	1946	Total 1939- 46
¹									

RECEIPTS

Export receipts	65.9	74.6	71.1	82.3	76.7	80.5	97.6	112.0	660.7
Lump-sum payments from United Kingdom Government ²						19.9	5.0	5.0	29.9
Other receipts ³	9.1	7.9	9.3	12.3	27.8	26.0	26.6	31.1	150.1
Total receipts	75.0	82.6	80.4	94.6	104.5	126.5	129.2	148.1	840.7

PAYMENTS

Payments for imports (excluding most Government imports)	48.9	52.1	43.1	36.4	31.2	32.8	33.6	62.4	340.5
Government and local body debt repayments ⁴	19.8	22.8	17.6	7.9	21.8	8.5	1.3	52.8	124.0 ⁵
Interest on Government and			7.1	7.2	7.1	6.7	6.4	6.0	54.6 ⁵

Local body debt									
Other payments ⁶ (including most payments for Government imports)									
	14.5	29.1	41.1	50.7	44.7	33.5	228.0		
									⁵
Total payments	68.7	74.9	82.2	80.6	101.3	98.8	86.0	154.7	747.2
Balance	+6.3	+7.7	-1.9	+14.0	+3.2	+27.7	+43.2	-6.6	+93.5
Net overseas assets at end of year ⁷	16.4	25.7	27.8	43.5	46.3	57.4	99.3	108.4	

² Imports of Lend-Lease goods were estimated at £21 million in 1944, but this figure did not include all goods supplied.

³ The arrangement by which New Zealand repaid the **United Kingdom** for costs incurred on account of New Zealand forces overseas. See also p. 270.

¹ From 7 December 1938 to 31 December 1939. Other figures are for calendar years.

² A final £5 million was received in 1947.

³ Part of the increase in later years was for pay and maintenance of **United States** authorities and personnel.

⁴ Estimates only. Memorandum of Security repayments are included here.

⁵ Approximate totals only. 1939 and 1940 figures not known.

⁵ Approximate totals only. 1939 and 1940 figures not known.

⁶ Payments on account of American authorities and personnel

are included here.

⁵ Approximate totals only. 1939 and 1940 figures not known.

⁷ £6·8 million at beginning of 1939. Changes do not agree with overseas exchange balances because of exchange adjustments, changes in Government overseas investments, etc.

WAR ECONOMY

OVERSEAS EXCHANGE TRANSACTIONS

Overseas Exchange Transactions

Many unusual overseas exchange transactions took place during the war, and it is most unfortunate that information on these transactions is inadequate. Several published statements are available, but the grouping of items is much too broad, while some items are not treated consistently throughout the war and there is no proper distinction between current and capital items.

Surviving records are not good enough to permit any full analysis to be made of the items year by year. The best that can be done is to take one of the unsatisfactory published statements as a framework and to discuss the content of the items in it.

The table on p. 386 is adapted from a table published in the first of New Zealand's regular Economic Surveys.⁸

The items in the table are now discussed briefly.

⁸ *The New Zealand Economy, 1939 to 1951*, Table 9, p. 60.

WAR ECONOMY

RECEIPTS

Receipts

Export Receipts, 1939 to 1946: £661 million: For the same period, exports, f.o.b., were valued at £613 million. There is seldom a very close correspondence between the recorded value of goods leaving New Zealand and the sum received in payment for exports. A time lag is to be expected between export and payment; prices for exports have to be estimated at the time of shipment. However, the difference of £48 million over eight years is large.

Reverse Lend-Lease supplies were not recorded as exports but, on the other hand, they would not give rise to an inflow of export receipts. Reverse Lend-Lease supplies were valued at £81 million, of which perhaps £40 to £50 million ⁹ were sent out of New Zealand to the **United States Forces** serving in the **Pacific**.

Lump Sum Payments: £30 million: In addition to the 1944, 1945, and 1946 payments shown in the table, a further £5 million was received in 1947. These payments were an acknowledgment of the fact that the **New Zealand Government's** stabilisation scheme had held down costs to New Zealand farmers and enabled them to supply the **United Kingdom** with food at prices which were out of line with the faster upward movement in other prices overseas, including the prices New Zealand had to pay for her imports.

Lump sum payments were set aside by the **New Zealand Government** to meet debt repayments and did not become part of farm incomes. ¹

Other Receipts: £150 million: Included here is a total of £29 million received on account of American authorities and personnel. This records the transfer of funds to provide for the pay and maintenance of American personnel in New Zealand. It does not include supplies and

services provided by New Zealand under Reverse Lend-Lease and valued at £81 million. Apart from expenditure by servicemen, the American authorities made certain purchases in New Zealand which were not covered by the reciprocal agreement.

Total Receipts of Overseas Exchange: £841 million: This figure excludes the value of Reverse Lend-Lease supplies totalling £81 million, but includes between £60 and £100 million of special wartime receipts which would cease in the post-war period.

⁹ This is a rough estimate only. It is known that 65 per cent by weight of the food supplied was sent out of New Zealand. The food supplied under Reverse Lend-Lease was valued at £41 million. Prefabricated huts and other buildings and a variety of stores also went to forces in the **Pacific**.

¹ See also **pp. 326** and **pp. 382**.

WAR ECONOMY

PAYMENTS

Payments

Import Payments, 1939 to 1946: £341 million: This is a most unsatisfactory classification. It relates to a portion only of total imports.

Actual import arrivals, valued at 10 per cent above current domestic value in their country of origin, totalled £510 million in the eight-year period. ² Included in this £510 million were some £73 million of Lend-Lease supplies and Canadian Mutual Aid for which import payments did not have to be made. ³ Imports for which payments had to be made were in the region of £437 million, but this includes Government as well as private imports.

Records of import arrivals included Government imports of defence stores, valued at some £105 million, and other supplies for the Government, at some £70 million. Part of these supplies came under Lend-Lease and Canadian Mutual Aid, but the rest, amounting to some £100 million, would be paid for by the Government. Government payments for imports are, in the main, included in the item 'Other Payments'.

No satisfactory reconciliation of these transactions is possible. Some £437 million of imports had to be paid for. £341 million of mainly private payments were covered by the overseas exchange item 'Import Payments', and some £100 million of Government payments were included under 'Other Payments'. As with exports and export receipts, there are timing and valuation differences between the figures for imports and import payments.

Government and Local Body Debt Repayments: £124 million, roughly: Progress payments, reimbursing the United Kingdom Government for the cost of New Zealand forces overseas, as provided for under the

Memorandum of Security, were recorded under this item. £60 million was paid in all to meet this commitment in full before the end of 1946. Other overseas loans totalling nearly £30 million were paid off in 1946. This effort, made possible partly by setting aside the lump sum payments received from the **United Kingdom, enabled New Zealand to complete her war effort with her overseas debt lower than before the war.**

Interest on Government and Local Body Debt: £55 million, roughly: As a result of loan repayments and of efforts to finance the war out of internal loans or taxation, this was a reducing item.

Other Payments: £228 million, roughly: This is another most unsatisfactory classification, which badly needs to be subdivided. For a start, it includes some £100 million of Government import payments. About £14 million of overseas payments on account of **United States** authorities and personnel are also recorded here.

Total Payments: £747 million: Excluded from this total are some £105 million of Lend-Lease goods and services for which no charge was made, but which were offset in the main by Reverse Lend-Lease supplies from New Zealand; ¹ also £6 million of Canadian Mutual Aid. Included are special wartime payments for defence equipment, maintenance of New Zealand forces overseas and other commitments which would not continue into peacetime, totalling about £150 million. ²

Excess of Receipts over Payments, 1939–46: £94 million: The balance for the whole period was an excess of receipts over payments of overseas exchange amounting to £94 million. In the main this favourable balance affected the overseas assets of the banks, which increased by £101 million, from £7 million at the beginning of 1939 to £108 million at the end of 1946.

² C.i.f. figures are not available for the war years. C.d.v. + 10 per cent gives a rough approximation to c.i.f. C.i.f.=landed cost, including insurance and freight; c.d.v.=current domestic value in country of origin.

³ In total this type of assistance reached £111 million, but part was in the form of services other than imports.

¹ No adjusting payments were made.

² See also pp. 272– 3.

WAR ECONOMY

IMPROVED EXTERNAL RESERVES

Improved External Reserves

This was a truly outstanding result. An expensive war had been waged and New Zealand's resulting overseas commitments had been paid. Yet the overseas-held national debt had been reduced by £45 million ¹ and the overseas assets of the banking system increased by £101 million, an overall gain of £146 million in New Zealand's financial standing overseas.

The Government's firm intention to meet the costs of war from internal sources and its success in raising special war taxation and loans played a major part in achieving the improvement in New Zealand's external economic situation. Remember that overseas reserves had been dangerously low at the outbreak of war. This deficiency had now been made good, and there was a substantial cushion of extra overseas reserves to be carried into the post-war years.

Extra reserves might well be needed. The essential counterpart to the Government's financial policy had been a willingness on the part of the public generally to cut back or postpone spending and to save an increased portion of their incomes. While in many cases reduced wartime consumption would not automatically create a compensating increase in post-war demand, there was a sizeable backlog of deferred expenditure on consumer durables such as refrigerators and washing machines, on housing and commercial buildings, and on capital works generally which would have to be overtaken in the post-war decade. Moreover, there was a considerable accumulation of wartime savings which would become available to make this expenditure possible. The import content of these types of expenditure was high, a characteristic which made their postponement so important in time of war, but would increase the propensity of the economy to over-import when backlogs were being overtaken. Post-war economic events are discussed in

¹ **Chart 56 on p. 266 shows changes in the public debt.**

WAR ECONOMY

CHAPTER 15 – TRANSPORT DIFFICULTIES

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WAR ECONOMY

CO-ORDINATION ATTEMPTS BEFORE THE WAR

Co-ordination Attempts Before the War

FEW industries have such a potential for duplication and waste as the transport industry. Fittingly, the industry in New Zealand has received more attention from co-ordinators and would-be co-ordinators than has any other industry. The legislative provision for co-ordination, when war broke out, was a Transport Licensing Act, passed in 1931, which was designed to 'regulate road motor transport with a view to securing co-ordination between it and other forms of transport, and to secure its organisation from the standpoint of maximum utility'. Co-ordinating powers under the Act had, by amendment, been vested in the Minister of Transport. All passenger vehicles, including taxis, had to be licensed, as had virtually all goods services operating for hire or reward. An important objective of licensing was to prevent unnecessary duplication of services. In particular, the number of road operators offering passenger or goods services over any route was restricted, especially if they were running parallel to the railway.

The war, bringing with it supply difficulties and manpower shortages, emphasised the need for efficiency and co-ordination in transport facilities. Government action was taken quickly. Overseas shipping came under the control of the **British Ministry of War Transport from the outbreak of war, while, in New Zealand, the **Naval Board** was given control of coastal shipping. Petrol rationing was introduced with equal promptitude, and essential road users were required to have coupons or licences to use petrol. Powers were taken to impress motor vehicles, to control aircraft and to restrict transfers of registry of British or New Zealand ships.**

Later in the war, shortages of shipping and the necessity for quick loading and turn-round of such shipping as was available gave added emphasis to the need for full co-ordination of all transport

arrangements, internal and external.

Petrol shortages hampered road transport for most of the war period, while losses of overseas ships and the transfer of coastal vessels to naval and other uses required the utmost economy in the use of merchant shipping. Growing wartime demands for coal and reduced coal imports led to shortages which restricted the increasingly overworked rail transport system.

Coastal shipping around New Zealand was so drastically reduced by the requisitioning of vessels for naval purposes that it became necessary to shift timber workers from the more plentiful **South Island forests to the **North Island**, where most camp construction work was done, to avoid using shipping to move timber from south to north.**

The need for co-ordination of transport under war conditions had been foreseen before the war. In September 1938 an Internal Transport Sub-Committee had been established under the **National Supply Council of the **Organisation for National Security**. This Committee was to ‘Consider the best means of coordinating transport to maintain essential services and conserve fuel, and to survey the stocks of essential supplies that the industry would require in the event of emergency.’ Later, the Sub-Committee gave way to a **Transport Industry Committee**, which was to plan for the use of road transport in emergency and to prepare a scheme for petrol rationing.**

In peace, New Zealand had tended to be oversupplied with internal transport facilities but, in war, curtailments caused by shortages of petrol and coal were to make this a happy memory. Labour shortages and industrial unrest in the mines, on the waterfront, and elsewhere were to add to wartime difficulties.

WAR ECONOMY

WATERFRONT WORK

Waterfront Work

All was not well on the waterfront when war broke out. Considerable dissatisfaction over wage rates was developing. The award granted by the Arbitration Court in 1937 had expired in June 1938 and there had been delays in obtaining a new award. By the beginning of 1939 criticism of wage rates had an edge of bitterness, with some inclination on the part of the men to show their feelings by go-slow tactics and the like. The existence of such tactics was strenuously denied by union officials, but there was a definite fall in the rate of output and in several instances men were removed from jobs because of alleged go-slow tactics. Differences widened, and the reaction of employers was to refuse to employ labour until some guarantee of good faith was given. The resulting losses of working time were designated strikes or lockouts according to individual sympathies.

WAR ECONOMY

PRESSURE FOR CO-OPERATIVE STEVEDORING

Pressure for Co-operative Stevedoring

Union officials were interested in building up pressure for a co-operative stevedoring system and, by 1939, the men were looking towards the introduction of co-operative stevedoring as a means of bringing about a definite improvement in waterfront work conditions. The employers opposed this scheme and suggested an extra rate for work done, in the hope of speeding up cargo handling and discouraging go-slow tactics. This suggestion came too near to the idea of piece-work to suit the unions.

Meantime the situation was deteriorating. Disputes and stoppages of work became more frequent. Disputes Committees were in existence but in general were not used. There were faults on both sides. The employers were too slow to discuss causes of dissatisfaction. The men were too ready to cease work when a matter was in dispute.

WAR ECONOMY

THE WATERFRONT TRANSPORT CONTROL BOARD

The Waterfront Transport Control Board

Considerable public dissatisfaction was aroused, and pressure was brought to bear on the Government to set up a royal commission to investigate the waterfront situation. The Government countered by calling a conference in March 1939. This conference resulted in the decision to establish a **Waterfront Transport Control Board** at each of the four main ports, with representatives from each side. Similar boards were to be set up in some of the smaller ports. Activities were to be coordinated by a national board. This system never became effective. In the same month trouble flared up again on the **Wellington** waterfront. Seven hundred and eighty men were involved in a work stoppage following dismissals for go-slow tactics, and the resulting deadlock lasted two and a half days. The Government took a strong line, and as a result work continued fairly smoothly for a time.

WAR ECONOMY

EARLY WARTIME TROUBLES ON THE WATERFRONT

Early Wartime Troubles on the Waterfront

The outbreak of war brought a reduction in the volume of shipping in New Zealand ports and a corresponding reduction in the amount of work on the wharves. By 1940 the tonnage of shipping calling at New Zealand ports had fallen 17 per cent below 1938. Further reductions were to follow.

The wartime demand for greater speed in handling cargo and for a quicker turn-round of ships emphasised the unsatisfactory nature of the method of payment for waterfront work. Speed was essential in the interests of the war effort, but it was evident that, when work was scarce, men who worked at a slower speed received more wages than those who worked at top speed. This disincentive influence, coupled with general dissatisfaction over pay rates, gave a most unfavourable climate for a maximum war effort on the wharves.

At the biennial conference of watersiders, in November 1939, one of the principle topics of discussion was the 'long and irritating delay in bringing to fruition the new waterside workers award'.¹

Realising that no increase in the speed of work could be hoped for under the existing conditions, the Minister of Labour, the **Hon. P. C. Webb, sponsored discussions between the Overseas Shipowners' Allotment Committee and the New Zealand Waterside Workers' Union. The discussions extended from December 1939 into January 1940. They revealed that discontent on the waterfront was gathering strength. Early in 1940, with still no decision on an award, the unions made the completion of award negotiations a condition to be satisfied before they would agree to any improvement in payment methods.**

As the weeks went by and no conclusion was reached, the men

tended to become critical of their union officials. The national executive of the union was accused of breaking faith with the men it represented. Early in February 1940, after several Ministerial statements in January, the Deputy Prime Minister announced that the Government had decided to appoint a **Waterfront Emergency Control Commission**, with power to control loading and unloading of ships, to organise the work so that a better despatch was obtained, and to ensure reasonable conditions of employment and payment for waterside workers. Meantime an inter-departmental committee was set up, but, before its report could be considered, fresh trouble broke out at **Auckland** and threatened to spread to **Wellington**. The Government took strong action, and regulations were made ² giving power to appoint a Waterfront Controller in any port.

Commenting on the regulations, the Minister of Labour said, ³ ‘control by the Government is essential if we are to ensure the maximum contribution by the Dominion to the war effort. The need for a single control to fit into the convoy system for the protection of our seamen, our ships and the produce carried cannot be over-emphasised.’

The March regulations were superseded in April by the regulations which set up the Waterfront Control Commission. ⁴ The new

¹ *Evening Star*, Dunedin, 14 December 1939.

² The Waterfront Control Emergency Regulations 1940. Gazetted 11 March 1940.

³ Reported in *Evening Post*, 11 March 1940.

⁴ The Waterfront Control Commission Emergency Regulations 1940, issued under the authority of the Emergency Regulations Act 1939.

regulations retained the power to appoint controllers, and four were appointed in June and July. ¹ Four wharf superintendents were also

appointed.

Not unnaturally, all the unrest and the changes in control had led to a considerable reduction in the pace of work on the waterfront. There was some justification for the cable received by the Overseas Shipowners' Allotment Committee from their **London** principals: ²

'Ministry of Shipping wish everything possible to be done to ensure prompt despatch and would welcome any reasonable scheme to improve waterfront conditions in New Zealand which are now notorious for inefficiency and expense.'

¹ **Wellington**, appointed by *Gazette* notice of 13 June 1940; **Auckland**, 20 June; **Canterbury**, 5 July; Otago, 5 July.

² Copy of cable enclosed with letter to Minister of Labour, 20 March 1940. Department of Labour file 3/3/1536.

WAR ECONOMY

THE WATERFRONT CONTROL COMMISSION

The Waterfront Control Commission

The April regulations provided for a Waterfront Control Commission of three which would operate through the Waterfront Controllers and other officers at the ports.

Losses of shipping and interference with shipping movements were making it difficult to move New Zealand's exports sufficiently quickly. It was vital to save time wherever possible. Quicker turn-round of ships was an obvious step, and the regulations of April 1940 were intended to give the Commission power to 'do all such things as it deems necessary for the purpose of ensuring the utmost expedition in the loading, unloading and storage of cargo at any point.'

The Commission had very extensive powers. It could employ labour, prescribe terms and conditions of employment, fix rates of remuneration and even make provision for a guaranteed weekly minimum payment.³ To give the Commission more freedom to act, the provisions of other legislation were suspended.⁴

The Commission's first function was to deal with existing discontent, rather than with special wartime measures. This was a matter of urgency, but it must not be imagined that the watersiders were the only ones dissatisfied. While many people recognised that they had a genuine grievance, there was widespread condemnation of their reluctance to exert themselves. The Prime Minister misjudged public feeling and aroused 'sharp criticism' when, in a speech on 19 May 1940, he paid tribute 'to the waterside workers at **Lyttelton who had loaded an overseas liner on Saturday and Sunday when they realised it was essential work and those at **Wanganui** who had also worked during the weekend'.¹**

³ In ports where the bureau system operated, each man registered who complied with the bureau rules had, since 1937, been guaranteed a weekly wage of £2 10s. This was raised to £3 by the Commission in June 1940.

⁴ The whole of the provisions of the New Zealand Waterside Workers' Award and of the Labour Disputes Investigation Act 1913, and certain provisions of the Industrial Conciliation and Arbitration Act, in so far as they related to that award, were suspended.

¹ Quoted by Wood, p. 132. The second leader in the *Dominion* of 21 May said: 'The Prime Minister's reference to the civilian side of national organisation contained proposals which are needful enough His lavish praise of waterside workers who worked on a Sunday (presumably at the high rates of overtime they are entitled to claim for such work) in order to load a certain important cargo was a form of kowtowing to petty sectional interests which was a monstrous anomaly in the light of the news from overseas and the sacrifices being made in the Motherland.' On the other hand, a statement in the House of Representatives by Mr F. L. Frost, Member for *New Plymouth*, gives another angle. He said: 'The honourable member for Waipawa took the waterside workers to task for not working on certain vessels after midnight. Curiously enough, when I went home that weekend I learned a little more about that story. Neither the honourable member nor the *New Zealand Herald* have given the other side of the story. It was told me by a friend who was talking to the stevedore when the ship in question sailed short of cargo. While he was there a waterside worker came to the stevedore and put a chit in his hand, and the stevedore turned to my friend and said, "Do you know what this is? I will tell you. This is a chit for the overtime the waterside workers have earned on the ship working here tonight. They have handed the whole of their overtime money to me for distribution to the boys of the R.A.F. on board that vessel, for the purpose of providing them with comforts." He said that this had been the regular practice of those men on the waterfront ever since the war started. Now, I challenge the *New Zealand Herald*, the *Dominion*, or any of these other daily newspapers that are so ready to condemn the waterside workers, to write a

leading article on that theme.' (*NZPD*, Vol. 257, p. 495, 12 July 1940.)

WAR ECONOMY

A NEW WATERFRONT AWARD

A New Waterfront Award

The Waterfront Commission took immediate steps to settle the question of the award. A new wage order came into force in June 1940. The hourly rate of pay was raised by twopence, and the provision for minimum payments was made more favourable to the workers. The bureau system was extended and other changes made in work conditions. These changes seem to have been accepted as generally satisfactory by both the parties concerned.

WAR ECONOMY

CO-OPERATIVE CONTRACTING

Co-operative Contracting

A system of co-operative contracting was introduced by the Commission at **Wellington** in July 1940 and thereafter at various other ports. On 3 July the Minister of Labour announced that contract conditions for the loading and unloading of all overseas ships would apply at **Wellington** from 10 July, and at **Bluff** and **Timaru** from 15 July. Negotiations were being carried out in other ports for the adoption of the system.

“The Commission is confident that the extension of the Contract System to other shipping is only a matter of time,” said Mr Webb. Only that morning he had discussed all phases of the waterfront position with the Commission, which had expressed itself as highly delighted with the results so far achieved. Needless to say much organisation remained to be done, and the introduction of the new system of cooperative contract work would take some time. However, it was gratifying to know that the Commission had arranged for contract work for **Wellington**, **Timaru**, and **Bluff**, and that the system was likely to be introduced in other ports. In order to expedite shipping and to have a speedier turn round of ships, the Commission, the Minister said, had arranged for the waterside workers to work extended time, including Saturdays and Sundays. More than seventy vessels had been worked extended time and on every occasion on which the Commission had approached the workers their cooperation in pushing the work along had been given wholeheartedly.

“I am personally delighted with the progress that has been made,” said Mr Webb, “and I am confident of the ultimate success of the cooperative contract system, which will bring everlasting benefits to the men who do the work and to the country.” ‘ 1

This expression of satisfaction was a little premature. It was to be

some years before the system was generally accepted.

Under the contract system the owners of a ship paid the Commission a contract price for the work of loading or discharging, plus overtime rates, minima, special payments and so on. Initially the men were paid wages; but any residue remaining out of the contract price was regarded as a profit or bonus payable to them. There were variations in the methods of payment. At Wellington profits were always distributed on a ship basis, but at all other ports they were pooled.

The Commission itself seems to have been somewhat disappointed in the results of the scheme after it was put into operation. Some sections of the Waterside Workers' Union did not co-operate, even though there had for a long time been considerable pressure from the union for such an arrangement.

In drafting its 1944 report ² the Commission made the following statement:

'It is promising to find an improved outlook towards the contracting system although it has taken a longer time than the Commission expected, and it is hoped that the outlook will extend still further so that a degree of understanding will exist which will bring the fullest measure of industrial harmony and peace.'

This was a very guarded statement, but the fact was that the system was watered down, and in general did not achieve what had been expected of it.

¹ Reported in *Dominion*, 3 July 1940.

² 'For security reasons', the Waterfront Control Commission did not actually publish an annual report in any of the years 1942 to 1944.

WAR ECONOMY

'SPELLING'

'Spelling'

While the Waterfront Commission made some improvements, it was unable to secure the wholehearted co-operation of the watersiders which was necessary for the quickest possible turn-round of scarce shipping. One particularly irritating example of lack of co-operation was the practice of 'spelling' which became blatant during the war. This practice is described in the 1952 report of the Royal Commission of Inquiry into the Waterfront Industry. ¹

'In this industry work does not proceed steadily without intermission. Many circumstances combine to reduce productive time. All this is mentioned because, from the very nature of the work involving as it does coordination with many other services, there are delays or spells during which the worker has to wait. These delays, or spells, are not referred to, but rather the practice of taking spells and of not working when work is available.

'This had developed before the war to an extent, but during the time of Commission control it was organized by the workers and increased. It was worst in the main ports, and it spread to secondary ports almost as if by direction. In unloading an overseas ship there might be twelve men in the gang in the hold. The practice obtained of only six men being in the hold working while the remaining six were absent spelling. On a discharging inter-colonial ship there might be normally, say, six in the hold and four on the wharf, but in fact you would never get more than four in the hold and two on the wharf. Spelling was practised equally in the ship and on the wharf and on overseas inter-colonial and small coastal ships. It might vary in detail on ships of different sizes and from port to port, but it usually meant that from one-third to one-half of the men at any time were spelling.

‘The organisation varied. Spelling might be on a two-hour or an hour basis. If on a two-hour basis, six men worked for two hours, being replaced by the other six at the end of the two hours, and so for spelling on a one-hour basis. In other words, at any one time there was only half the number working or men worked half the time for which they were paid. On inter-colonial ships there might be in the hold from one-half to two-thirds of the gang. With coastal ships the men in the hold might work only two-thirds of the time for which they were paid and might spend one-third of their time away from the job spelling. On the wharf the same practices obtained, and from one-third to one-half of the gang on the wharf might at any time be absent spelling.

¹ Parliamentary Paper H-50, paragraphs 27 to 33.

‘The matter went deeper. When men were working on special cargoes an additional rate was claimed and charged for the whole time, although the worker might not even be upon the ship or wharf, but might be in town or at his own home. In some cases the arrangement was that some men would not work overtime hours, and then they did not go down in the evening or came down only to put in a nominal appearance and then left. But pay was drawn at an overtime rate for the full evening's work, plus special cargo rate if that happened to be payable.

‘At times men spelling might remain on the ship or on the wharf, or they might go off the wharf and up to town on their own business, or home. The practice was worst at **Auckland, Wellington and Lyttelton. At Dunedin, at certain hours, with the ships there, there were almost always two men away from the hold and two away from the wharf. This practice never really got properly established by watersiders employed by the Wellington Harbour Board, whose officers took prompt action and prevented its establishment. It is proper to say that here supervision was easier. It cannot be said that it was not attempted.**

‘Spelling in some cases meant a reduction in the spread of hours,

say, from 59 to no more than an effective 30. From 1942 to 1946 the foremen at **Auckland** and **Wellington** were taken over by the Commission to make the best use of the limited number of foremen when working round the clock. Much would have been tolerated in the war years owing to the long spread of hours of the waterside workers, but the spelling practice went beyond all reason.

‘The Commission was well aware of the practice and employers were continually complaining of it. During Commission control spelling became organised and increased and was done more openly, whereas it began surreptitiously. The employers did in time endeavour to stop spelling and to meet the legitimate needs of the men for a break during the morning and the afternoon, but did not receive much support in any quarter.’

In spite of all attempts to improve output on the wharves, spelling continued to be abused and was not brought under control until the Government took firm action following the prolonged waterfront dispute of 1951. ¹

¹ Then a National Government with William Sullivan, later Sir William Sullivan, as Minister of Labour.

WAR ECONOMY

EXTENDED HOURS OF WORK

Extended Hours of Work

Shortly after its appointment, the Commission, moved by the urgency of the overseas shipping shortage, made arrangements for work on Sundays and holidays, and for shift work. This increased the weekly hours for working ships from 68 to 140, and, with the measures to concentrate overseas shipping at the main ports, played a material part in reducing the average time spent by overseas vessels on the New Zealand coast. The reduction in ports of call was achieved mainly by transshipping to or from coastal vessels. For perishable cargoes, two small vessels with freezer holds had been made available by the **British Ministry of War Transport** for use between secondary and main ports. ¹

The introduction of co-operative contracting also lessened the time needed to handle vessels, by increasing rates of work per hour, although the improvement was considerably less than had been expected.

Coastal shipping had, by 1942, been considerably depleted by the requisitioning of vessels for naval use. With extra demands for transshipment of overseas cargoes and the need to move large quantities of coal and timber from the **South Island** to the **North Island**, coastal shipping became inadequate. To ease the pressure, the Commission, from June 1942, required all coastal vessels of over 350 tons net register to be worked continuously round the clock. These shift arrangements continued in full force until January 1944, when a reduction in hours was made.

The Commission, in May 1942, raised the guaranteed wage to £3 6s. per week in the ports of **Auckland**, **Wellington** and **Lyttelton**, but the guaranteed wage scheme was not extended to other ports.

¹ Annual Report of Waterfront Control Commission,

WAR ECONOMY

UNITED STATES SUPPLIES

United States Supplies

From the time of the arrival of the **United States Forces** in New Zealand in June 1942, there was considerable movement of **United States** vessels in and out of New Zealand ports, and, especially in **Auckland**, a large civilian staff was required for waterside work on these vessels. From June 1942 until March 1945, approximately half of all the wages paid at the port of **Auckland** were for work carried out on behalf of the **United States** authorities. There was soon a severe shortage of labour for waterfront work in **Auckland**, and extra workers had to be brought in. To supplement the still inadequate work force, men who had other jobs during ordinary working hours were taken on for shift work and for weekend work.

Optimum allocation of labour to jobs on the waterfront and elsewhere was made difficult by the comparatively high rates of pay offered by the **United States** authorities.²

² Discussed more fully in

WAR ECONOMY

LIMITED SUCCESS OF CO-OPERATIVE CONTRACTING

Limited Success of Co-operative Contracting

The Commission, in its 1945 report, was cautious in its comments on co-operative contracting, describing the results as being ‘as a whole, quite gratifying having regard to shift work and other influences tending to reduce the rate of work.’¹

Profit distributions under the co-operative contracting system in the last two years of war added about 9 per cent to wage earnings and should have been an adequate incentive to work effectively, had the bonus payment been directly related to the work done on each job. In some ports, however, bonus payments were averaged out over a number of vessels, so that the ultimate payment became too far removed from the effort put into any particular job. In these circumstances bonus payments provided an overall increase in the level of payments and gave some assurance that the workers would not lose by working harder, but failed to provide an adequate incentive to work really effectively on any particular vessel.²

There was considerable difficulty in securing adequate supervision of waterside work, and the Commission took over foremen previously employed by the individual companies in order to use them more effectively.³ Some improvement in work seems to have resulted but not nearly as much as was expected.

Nearly a million tons of cargo was handled under the co-operative contracting system in the year 1940–41, increasing to well over three million tons in 1941–42, and to nearly four and a half million tons in 1942–43. For each of the next two years over four and a half million tons was handled under this system, and the Commission, in its 1945 report, stated that, apart from American vessels at the port of **Auckland, over 90 per cent of the cargo handled on the waterfronts of New Zealand**

was worked under contract. ⁴

Had the co-operative stevedoring scheme provided an adequate incentive to effective work, the shortage of supervising staff might not have proved too serious a handicap. As it was, the increased incidence of spelling and other abuses showed clearly that the incentive to get the work done was inadequate. Despite some minor improvements in rates of working, the general standard of work on the waterfront remained one of the weakest points in the country's war effort.

¹ p. 4.

² This view is confirmed by the Report of the Royal Commission of Inquiry into the Waterfront Industry, Parliamentary Paper H-50, 1952, p. 52.

³ At Auckland in June 1942, at [Wellington](#) in November 1942.

⁴ Parliamentary Paper H-45, p. 4.

The Commission's 1945 report gives an estimated increase of about a quarter in the per man rate of loading under the contracting system as compared with the earlier wages system, ¹ but the evidence offered is not convincing.

Commission control may have helped to reduce the loss of time through stoppages of work on the waterfront. The percentage of hours lost during five years of Commission control was approximately half of what it had been during the preceding four years.

Chart 68 shows changes in turn-round times of overseas vessels.

Chart 68

TURN-ROUND OF OVERSEAS VESSELS
 AVERAGE NUMBER OF DAYS SPENT ON THE NEW ZEALAND COAST
 AND AVERAGE NUMBER OF PORTS VISITED

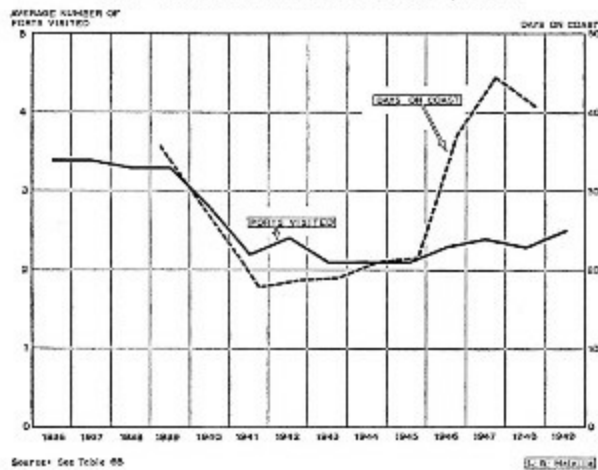


Chart 68

TURN - ROUND OF OVERSEAS VESSELS

AVERAGE NUMBER OF DAYS SPENT ON THE NEW ZEALAND COAST AND AVERAGE NUMBER OF PORTS VISITED

Quicker turn-round of overseas vessels was the main consideration. The Commission estimated that an average saving of eighteen days per vessel had been made in the time spent in New Zealand by overseas vessels, reducing the average time by half.² It attributed five days of this saving to 'speedier work under cooperative contracts

¹ p. 24. Paragraphs 145 to 150 of the Report of the Royal Commission of Inquiry into the Waterfront Industry throw considerable doubt on this comparison.

² April 1944 to March 1945, compared with January to June 1939; including steaming time between ports, but excluding days taken on ship repairs when cargo was not worked. The base period, in 1939, is too short for satisfactory comparisons. Moreover, it included a time when the workers were being accused of go-slow tactics. See also pp. 392 and pp. 393.

system', seven days to 'working shifts, Sundays, and holidays', and six days to 'reduction in ports of call'.¹

¹ See also p. 377. On average, each ship called at one less port in

New Zealand.

WAR ECONOMY

COASTAL SHIPPING

Coastal Shipping

Coastal shipping for transport between ports and for fishing was inadequate for most of the war years.

There had been a decrease in the volume of coastal shipping in the immediate pre-war years. The trawling industry had declined, and the improvement in road and rail transport as a means of distribution of goods from the main ports of **Auckland, Wellington, Lyttelton and Port Chalmers had reduced the need for coastal shipping. The numbers of coastal vessels were further depleted during the war by the withdrawal of vessels for minesweeping, anti-submarine work, and other naval purposes. This depletion of coastal shipping had been foreseen by the Transport Committee, which was set up in March 1938 by the **Organisation for National Security**, but little could have been done about it. It was realised that naval demands for small vessels would have to be met largely by requisitioning existing craft, in spite of the fact that this would place a strain on available coastal shipping.**

At the outbreak of war the **Naval Board was given full powers to control or requisition coastal shipping.² Several coastal vessels were taken in the first few weeks of war for conversion into examination vessels in ports. A limited number of other vessels was requisitioned in 1940 and 1941, but with the Japanese attack on **Pearl Harbour** in December 1941, there was an acceleration in the rate of requisitioning. From late in 1942 the **United States** authorities also made heavy demands for small vessels to be requisitioned or constructed in New Zealand for operations in the South Pacific.**

The concentration of overseas shipping on the main ports, in order to reduce the time spent on the New Zealand coast, increased the demands on coastal shipping for transshipment work, while oil fuel

shortages and consequent restrictions on road transport increased the pressure on coastal shipping as well as on the railways.

There was some scope to reduce the strain by better co-ordination between road, rail and sea transport; but little could be done about the inter-island trade, and here the shortage of coastal shipping became really restrictive. The position was most acute early in 1943, when coal and timber for transshipment from the South to the **North Island began to pile up.**

The Commissioner of Defence Construction, in urgent need of extra timber from the **South Island, pressed for the release of some of the vessels which had been requisitioned for naval work. His was not a lone voice. Release of vessels began late in 1943, as war operations in the **Pacific** moved further away from New Zealand, and continued through 1944 and 1945.**

² The Shipping Control Emergency Regulations of 1 September 1939.

WAR ECONOMY

SHORTAGES OF FISH

Shortages of Fish

Naval minesweeping requirements had seriously reduced the number of trawling vessels available for fishing. Supplies of fish became inadequate to meet local needs. A local daily, ¹ in October 1943, hit out at this particular shortage:

‘Of all food commodities, one which should be in abundance in this country is fish. It is true that in the last two years of war commandeering of large trawlers for defence purposes, together with restrictions placed on fishing in special areas, has hampered the harvesting of food from the sea. It is true also that the fishing industry, like other industries, has been depleted of skilled manpower. Taking these facts into consideration, however, it has to be said that the fish industry—reduced as it has been by lack of encouragement from State departments, control of manpower, and other essential priorities to the status of an industrial Cinderella and hedged about with a multitude of regulations—has made probably the poorest showing against wartime adversity of any important productive enterprise.

‘As the position stands the public are the sufferers in a needless famine. During the past year or so a system of discrimination in the allocation of fish supplies during frequent periods of particularly acute scarcity seems to have been introduced. In Wellington this week, for example, it was reported that certain supplies of fish could be sold at auctions only to restaurants and hotel keepers. Other supplies—apart from those very properly reserved for hospitals and similar institutions—may have found their way to favoured consumers, but the rank and file of retail buyers were again denied fresh fish....’

Despite this shortage of fish on the New Zealand market, about a fifth of all the fish marketed continued to be exported to **Australia.**

¹ *Dominion*, 9 October 1943.

WAR ECONOMY

NEW ZEALAND RAILWAYS

New Zealand Railways

For New Zealand's state-owned railways, the war brought a much heavier load of passenger and goods traffic, to be handled by a depleted staff, whose efficiency was hampered by shortages of suitable types of coal to fuel locomotives, then almost entirely coal-burning.

For every three passengers carried by rail in 1939, five were being carried in 1944 and, in terms of ton-miles, goods and livestock carried increased by some 45 per cent over the same period. Engine mileage increased by nearly one-fifth.

The extra organisation involved was greater than would be indicated by these figures. During the war thirty-two thousand special trains were provided to move troops, and over seventeen million individual journeys for members of the Armed Forces were made on these trains. Many other special trains were arranged to carry munitions and other war materials. With the build-up in numbers in the armed forces serving in New Zealand to meet the possibility of Japanese invasion, the extra strain on the railways became particularly severe. In each of the years 1940–41 and 1941–42, rather more than one million troop movements had been arranged on special trains, but in 1942–43 and again in 1943–44 the numbers were over five million, and in 1944–45 over four million.

In addition, the railways workshops, as befitted the largest mechanical engineering establishment in New Zealand, played an important part in the manufacture of war materials such as Bren-gun carriers, trench mortars, bomb casings and camp equipment. All this was essential work, but work which, with a depleted staff, made it more difficult to keep up to date with maintenance of railway rolling stock.

The 1946 report of the [Railways Department](#) ¹ makes reference to

some of the resulting backlogs of normal work:

‘Programmes for the building of locomotives and rolling stock of all types have of course been seriously interrupted during the war years. The interruption has been felt very keenly in the case of open type LA ² waggons. During the years 1942 to 1945 inclusive, there would have been constructed in normal times an average of 700 LA waggons per annum, while actually none were constructed during the years 1942 to 1944 and only 130 in 1945.’

¹ Parliamentary Paper D-2, p. 3.

² This is a high-sided open four-wheeled steel waggon.

WAR ECONOMY

RAILWAY STAFF SHORTAGES

Railway Staff Shortages

As in the 1914–18 war, well over a quarter of all railwaymen enlisted. In June 1940 arrangements were made to provide two **Railway Operating Companies** for service abroad, and in this capacity over eight hundred railwaymen served in the **Middle East**. This, however, represented only a part of the strain on the staff of the Department. Larger numbers of railwaymen enlisted for other types of war service, especially in the **Railway Survey Company** and in the two **Railway Construction Companies**.

Some railway work was declared essential in January 1942. In July of that year, the declaration was extended to all railway activities. This was a little late in the day. By March 1942 **Railways Department** staff had fallen to 86 per cent of its level in September 1939. Staffing difficulties were particularly acute in the workshops, where the numbers, by August 1942, had fallen by a third. The workshops staff had to cope with the manufacture of a wide range of war materials, superimposed on the normal repair and maintenance work essential to keep the railways running.

Staffing difficulties generally were most difficult in February and March 1943. This was a period when the Department was carrying a very heavy load of extra work for the armed forces. In February 1943, nearly seven thousand railwaymen were serving in the Forces, representing 27 per cent of the pre-war staff. The need for replacements had become urgent. Opportunities for women to substitute for men who had joined the services were limited in the railways, where a good deal of the work was unsuitable for women. Women were employed as office and station assistants, on light manual work in stores, and in similar occupations. The number of women on the staff increased from some six hundred in September 1939 to over two thousand by March 1943. With nearly seven

thousand men from the Railways serving in the armed forces, still more assistance was needed. Part of the deficiency in staff numbers was made good by the return to work of railway superannuitants, but, in spite of this, total staff was, at March 1943, over three thousand below the pre-war figure.

Towards the end of 1942 some servicemen in New Zealand had been demobilised to meet civilian staff shortages; and the railways received further relief in July 1943 when most of those serving in the **Railway Operating Companies** returned. Nevertheless, staff was to remain over two thousand lower than before the war for the last three years of war, when the greatest amount of extra work was placed upon the Department.

Considering the exceptionally heavy extra load carried by the railways in the war years and their key position in the transport industry, the degree of manpower protection was quite inadequate. Other countries gave much more protection to their railway systems, as the following table shows: ¹

¹ Parliamentary Paper H-11 A, 1946, p. 44.

<i>Railways Systems</i>	<i>Percentage of the Pre-war Strength who were Serving in March 1943</i>
Canada	8.1
Victoria	9.9
New South Wales	11.5
Great Britain	14.5
New Zealand	26.0

The deterioration in the railways staffing position was pointedly brought home to the Government by a Board of Inquiry which reported to the Minister of Railways concerning the derailment of an Upper Hutt - **Wellington** passenger train in November 1943. The Board said: ¹

‘The condition of the track cannot be dissociated from the weight and density of the traffic movement upon it, on the one hand, and the available strengths of the maintenance gangs, on the other. It is disquietening, therefore, to find that, against large increases in train-miles, train-loads and gross ton-miles on the Hutt Valley Section from 1938–39 to 1942–43, there has been a marked decrease in the effective man-power of line gangs.

‘It cannot be too emphatically stated that the standards of maintenance of the railway-transport system, whether of track, signals, or locomotive or rolling stock, must be sustained at a high level, and in no circumstances must the level be allowed to fall so low as to jeopardise public safety and the transportation requirements of the national war effort. Our investigation of the circumstances of the present derailment has afforded strong indications of a close approach to such a level, insofar, at all events, as the Hutt Valley track and the work in the repair-shops and in the locomotive running-sheds are concerned, and the position must be regarded as being potentially serious.

‘We very strongly recommend that every effort be made by the Government and the man-power authorities to meet the requirements of the [Railways Department](#) for sufficient manpower properly to maintain the permanent-way, locomotives, and other rolling stock.’

¹ Report of Board of Inquiry dated 23 December 1943, p. 12. (Copy held by New Zealand [Railways Department](#).)

WAR ECONOMY

COAL FOR LOCOMOTIVES

Coal for Locomotives

A constant wartime problem for the railways was the inadequacy of supplies of hard coal for the efficient running of locomotives. Production of other types of coal tended to be irregular and there was never sufficient for the Department to build up stocks as a precaution against interruption in supply. Because of the importance of the railways as a user of coal and its dependence on coal mining for regular running, the wartime experiences of the coal-mining industry are treated in this chapter. One major influence on coal output, the prevalence of industrial disputes, is mentioned where necessary, but is not discussed fully, as this has already been done in a companion volume. ¹



Chart 69
RAILWAYS OPERATIONS

Chart 69 shows some key railway statistics.

Coal shortages had caused restriction of railway services as early as April 1940, and there were varying restrictions on civilian passenger transport services for most of the war years. At times passengers had to

have permits to travel over a certain distance. ²

The shortage of coal was particularly acute early in 1944, and in January, with only 18,400 tons ³ on hand, further restrictions were placed on goods and passenger transport by rail in both islands.

The permit system was abandoned from September 1944.

¹ F. L. W. Wood, *Political and External Affairs*.

² See also

Chapter 17 for a fuller discussion of travel restrictions.

³ Compared with 78,000 tons in January 1940.

WAR ECONOMY

COAL MINING

Coal Mining

In the years just before the war, annual coal production in New Zealand had been increasing, and in 1939 was over two and a third million tons. In addition, over one hundred thousand tons, mainly of high-grade bituminous coal, for industrial purposes, was being imported from Australia. Coal exports, including overseas ships' bunkers, were averaging about fifty thousand tons, leaving some 2,400,000 tons a year available for use in New Zealand. The Railways Department was using about 500,000 tons of this coal. Coastal shipping took 100,000 tons, gasworks 250,000 tons, factories 700,000 tons and households 850,000 tons.

The coal-mining industry was influenced very considerably by the special circumstances of war. The increased incidence of state ownership of mines, and the rapid extension of open-cast mining, were both part of the effort to step up production of a commodity which became more vital to the economy as demand increased and the inflow of imported coal and oil fuels declined.

The New Zealand output of coal increased year by year throughout the whole of the war period. This result was assisted materially in the last two years of war by the expansion in open-cast mining, but coal mining was also one of the few industries where the number of persons engaged was consistently higher than before the war. The industry was one of the first to be declared essential ¹ and intensive efforts were made to secure extra labour to bring coal supplies nearer to the high wartime demand.

From May 1940, the Government paid a subsidy of 1s. 6d. a ton to coal owners to meet increased wages and other costs and to avoid an increase in the price of coal. The rate of subsidy was increased several

times during the war.

In spite of increased output, there was an unsatisfied demand for coal in most war years. Considerable extra work fell on the **Railways Department**, which was a major coal user and, in other industries, shortages of oil fuel for various purposes and of electric power tended to emphasise the need for coal as a means of producing power and heat. Again, the electricity shortages caused unprecedented consumption of coal at the two steam generating stations in **Auckland** and **Wellington**.²

¹ In January 1942, but the industry had a measure of protection before this. In 1946 the **National Service Department** wrote: ‘... the production of coal has remained a first priority throughout the war.’—Parliamentary Paper H-11 A, p. 41.

² King's Wharf and Evans Bay, respectively. New Zealand's power generation is predominantly hydro-electric. The normal function of the two steam generating stations was to handle exceptional peak loads.

WAR ECONOMY

SHORTAGES OF HARD COAL

Shortages of Hard Coal

It had been common before the war for coal production to exceed demand, and a good deal of attention had been given to finding uses for the coal which was being mined. The war changed this, to the extent that in the years 1940 to 1945 there was an acute shortage of coal. This shortage, mainly of bituminous coal, was accentuated as imports from **Australia** fell away under war conditions. By 1943 coal imports, which stood at 112,000 tons in 1939, had fallen to 37,000 tons, and in 1944 and 1945 there were no coal imports at all.

The reduction in imported supplies of hard coal had to be made good from local production and, if demand was to be fully met, it had to be made good in the best quality bituminous coal. In the event, users tended to be supplied with lower grades of coal than previously. The railways found that, because of the decreasing proportion of hard coal, even greater quantities of coal were required to provide the necessary locomotive running. Similarly, in gasworks more coal was required to give comparable results.

The proportion of soft coal used by the railways increased from 41 per cent in 1939 to 64 per cent in 1945. With the lower efficiency of this type of coal, the average amount used for each engine mile increased by a quarter, from 64 lb per engine mile in 1939 to 80 lb in 1945.

Coal production by 1945 was 21 per cent above that of 1939. Even with the complete loss of the imports from **Australia**, the quantity of coal available for use in New Zealand increased 17 per cent over this period. However, with the imports from **Australia** not being reproduced in kind, there was a fall in the quality of coal available. Local production of bituminous coal not only failed to replace the loss of Australian imports,

but, in spite of a short spurt in the early war years, actually fell by 8 per cent over the period 1939 to 1945. Moreover, with decreased supplies of oil fuels, electric supply restrictions and increased wartime demands for factory output and rail services, the demand for coal increased much more than 17 per cent.

WAR ECONOMY

TRANSPORT OF WEST COAST COAL

Transport of West Coast Coal

Some grades of bituminous coal, essential to gasworks and other industrial activities, were available in New Zealand only on the **West Coast**, and had to be moved from there by ship over bar harbours which were notoriously unreliable. Delays in getting ships out of **West Coast** harbours had been responsible for a number of crises in the supply of coal for the **North Island** in peacetime. The situation was aggravated by the general shortage of coastal shipping during the war. To assist in overcoming delays, the Minister of Mines called a conference in **Wellington** in February 1941, and a **Coal Transport Shipping Committee** was established to co-ordinate the efforts of shipowners, railways, waterside workers, seamen, mine owners, and others, with a view to ensuring that the transport available was used to best advantage and that coal supplies reached **North Island** industry with the least possible delay. Two local committees were also set up at **Greymouth** and **Westport**. These committees had very few meetings but helped to speed up arrangements for shipping coal out of the **West Coast**. Exports of coal from **Greymouth** more than doubled during the period 1938–39 to 1944–45, but exports from **Westport** declined. These figures were affected by the ease of working coal in the two areas, as well as by the efficiency of the transport arrangements. Overall, compared with before the war, there was an increase of about 150,000 tons a year in coal sent from **West Coast** ports to the **North Island**.

With the shortage of coastal shipping, the **Railways Department** became particularly vulnerable to any delay in access to **West Coast** harbours. The Department needed the better quality **Westport** coal, and its ability to cope with a delay in arrival of fresh supplies was reduced by its steadily diminishing coal stocks. In March 1939 the Department held 93,000 tons, but by 1943 stocks had diminished to 65,000 tons and fell

to under 20,000 tons in 1944.

WAR ECONOMY

STATE OWNERSHIP OF MINES

State Ownership of Mines

When war broke out, the State owned and was operating three underground mines, all situated on the **West Coast**. When it ended there were eleven underground state mines, and, in addition, eight open-cast mines. The latter had all been developed by the State during the six war years. For the year ended March 1940 the state mines produced less than one-tenth of the total output of coal, but in the following year state mines, excluding state open-cast mines, were producing 873,000 tons out of a total of 2,794,000 tons, or nearly a third. This considerable extension of state enterprise in underground mining was not brought about by opening up and developing new mines but almost entirely by the acquisition of existing mines.

Some of the underground mines which were taken over had reached a stage where the companies working them were unable to continue operations because of severe financial loss or inability to carry out development work to increase production. On the other hand, some mines were taken over as a means of settling disputes between owners and miners. The most notable instance was the **Waikato** mines, which were taken over after sentences of one month's imprisonment imposed on 182 strikers had been suspended on the condition that they worked diligently and refrained from striking. It was this action which led to the withdrawal of National Party members from the War Administration in September 1942. ¹

State ownership of the **Waikato** mines resulted in an immediate spurt to a record level of production in 1943, but this achievement was short-lived. Output fell successively in 1944, 1945 and 1946, until in the last year it was sixteen thousand tons less than it had been in 1939. Altogether, the taking over of the **Waikato** mines was a very costly state venture.

¹ See also Wood, p. 236.

WAR ECONOMY

OPEN-CAST MINING

Open-cast Mining

The Government was more successful in its venture into opencast mining. Small-scale open-cast mining had been undertaken before the war, but large-scale operations were a direct result of the wartime coal shortage.

The first new area to be opened up was Glen Afton, where work commenced in October 1943 and the scheme came into production in January 1944. In its 1946 annual report, the Mines Department said: ²

‘Since 1943 the Mines Department has paid increasing attention to this form of mining. For a commencement extensive geological and topographical surveys, followed by drilling, were required to locate suitable areas, define depths of overburden, and facilitate layout of stripping operations. Shortage of earth-moving equipment was a severe handicap at the outset, but in 1945 the Mines Department was able to import two 5 cubic-yard Bucyrus Erie electric drag line shovels, and since then production has considerably increased.

‘Generally it has not been until 1945 that the full effect of the Government's open-cast policy has been felt. In 1945 there were fifty-one open-cast mines in active operation, which produced 452,680 tons of coal, a little over one seventh of the total coal production. Production by open-cast mines has increased progressively from 55,774 tons in 1942 to 62,037 tons in 1943, to 196,454 tons in 1944, to the record figure of 452,680 tons in 1945. The greatest proportion of this increase has been due to the eight open-cast mines operated by the State, none of which were in existence in 1942, but which contributed 257,467 tons of the 1945 total.’

Chart 70 shows changes in output of coal.

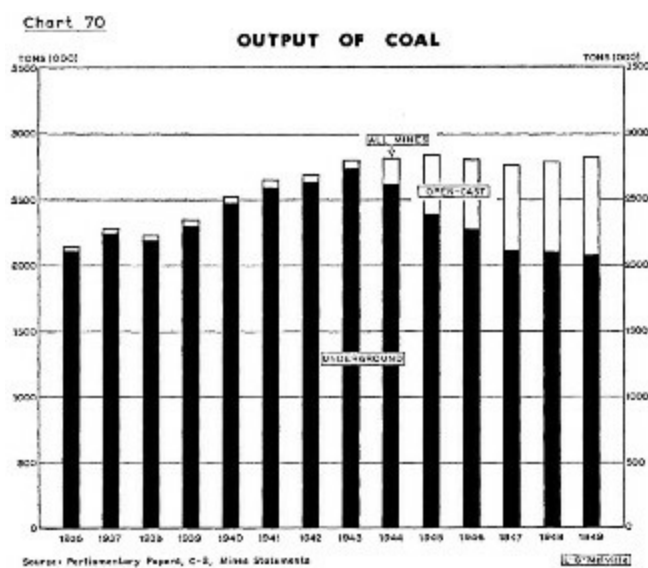


Chart 70
OUTPUT OF COAL

In the later war years the acceleration in open-cast mining considerably boosted coal production in New Zealand. In 1939 only 2 per cent of New Zealand production came from open-cast mines, but by the end of the war their output was approaching one-fifth of all coal production.

Open-cast mining had another important influence on efficiency in mining. It was only the extension of this method which avoided a substantial fall over the war years in the output per man for the whole industry. After 1943, the rapidly increasing proportion of production obtained from open-casts, where relatively high per-man outputs could be obtained, should have materially increased overall efficiency in production. Unfortunately the increase in tons per man for the whole industry was small. The gain in open-casts was offset in the later war years by a steady decline in the rate of output of miners working underground. Commenting on this, and on the related fall in bituminous coal output, the Mines Department says in its 1946 report: ¹

‘It will be noted that in the case of underground mines, while the output per man increased during the years 1941 and 1942, there has been a progressive decline since then. This is due in great part to conditions brought about by the war. Increased production has been

expedient in those years even if future production was thereby affected, and the effect has been cumulative with the years. Restriction of essential development work in the interests of immediate production, the shortage of skilled miners, and the increased average age of the coal-hewers owing to the difficulties in replacements with younger men have all contributed to lessen the output-per-man figure.'

Referring specifically to bituminous coal, which came from underground mines, the 1947 report says: ²

'... New Zealand's resources of bituminous coal are not unlimited, and after many years of exploitation the more accessible and easily worked deposits are approaching exhaustion, while, owing to the lenticular nature of the deposits, extensive boring is necessary before development of new mines can be undertaken with confidence. It was inevitable during the war years with shortage of manpower that essential development work had to be sacrificed to the exigencies of the time, and there is accordingly considerable leeway to be made up.'

The output of bituminous coal fell steadily after 1941 and by 1945 had dropped 22 per cent.

In spite of these difficulties, the wartime performances of the coal-mining industry, considering the degree of protection given against losses of manpower to the forces, the concessions made to the workers by the Government, the transfers to state ownership to keep mines operating, and the very extensive Government development work in open-cast mines, can only be regarded as disappointing.

² Parliamentary Paper C-2, Mines Statement, 1946, p. 6.

¹ Parliamentary Paper C-2, p. 5.

² Parliamentary Paper C-2, p. 6.

WAR ECONOMY

RAILWAYS REACTIONS

Railways Reactions

It is likely that the experiences of the **Railways Department in wartime, when it carried a considerable extra load with its coal supplies short of requirements and often uncertain, accelerated the post-war changeover from coal-burning to oil-burning and electric locomotives. The Department's annual report to Parliament in 1946 said: ¹**

‘The coal-supply has continued to be a source of constant difficulty throughout the year, and restrictions on passenger services have had to be maintained. The total quantity of coal consumed increased from 576,926 tons to 610,086 tons, although over eighty per cent of the increase was in soft coal.

‘Arising out of the difficult position regarding coal supplies, investigation has been made into the possibilities of the use of oil fuel for locomotives. From the operating viewpoint there is no doubt that the present fuel cost per locomotive mile of an oil burning locomotive would be in excess of that for a coal burning locomotive. However, arrangements have been made for two locomotives to be converted for test purposes and these should be ready for operation at about the end of the year.’

Railways coal consumption was to drop to well under a half in the twelve years following the war.

¹ **Parliamentary Paper D-2, p. 2.**

WAR ECONOMY

AIR SERVICES

Air Services

The first scheduled commercial air services had been started in New Zealand in December 1934, but by 1939 there was already a network of services covering New Zealand, with three companies operating. On the outbreak of war, ten aircraft were taken over by the Government. As a result, one company ceased operations. The other two maintained services on a reduced scale. Over 53,000 passengers had been carried in 1938–39, but by 1940–41 the numbers had fallen to some 37,000 and were to remain between 30,000 and 40,000 until they moved up to over 50,000 again in 1944–45.

It is difficult to tell how fast air services would have grown over these years had the war not intervened, but the expansion in the post-war years was to be rapid, with passenger numbers increasing more than tenfold between 1946 and 1960.

WAR ECONOMY

ROAD TRANSPORT

Road Transport

New Zealand had tended to be over-supplied with some types of transport facilities in the decade before the war. Road transport, while essential as a feeder service to the railways, tended also to offer facilities parallel to those already available by rail. In particular, the **Railways Department** had been severely affected by competition from the motor lorry. Transport licensing had been introduced in 1931, having for one of its objectives the prevention of excessive competition with the **Railways Department**. But, on routes where licensing did not prevent it, there was still considerable competition for the transport of passengers and goods right up to the outbreak of war.

The private motor car was also taking a considerable part of the passenger load which would otherwise have fallen on railways or buses. In the three years from 1936 to 1939 motor vehicle registrations had increased by a quarter. In particular, registrations of motor cars had increased by 42 per cent and registrations of heavy trucks by 32 per cent. In terms of the popularity of the motor car, New Zealand was second only to the **United States of America**, and the number of private motorists was increasing by about one-eighth in each year.

The rapid increase in numbers of motor vehicles not only created a demand for new and better roads but provided, through taxation on motor spirits, an expanding source of revenue for road building and maintenance.

Petrol imports had increased by one-fifth in the three pre-war years and, by 1939, made up 4 per cent by value of all New Zealand imports. All petrol for use on the roads had to be imported, whereas coal for railways locomotives could be mined in New Zealand. The greater relative importance of motor transport was increasing New Zealand's

dependence on imports to supply the traction power for transport and, consequently, increasing the vulnerability of her transport system in the event of war. Fittingly, petrol rationing came into force the day war was declared. ¹

¹ The Oil Fuel Emergency Regulations were gazetted as part of the Supply Control Emergency Regulations 1939, on 4 September 1939.

WAR ECONOMY

PETROL RATIONING

Petrol Rationing

In 1939 the private motorist was using over half of all petrol consumed. On him the main brunt of rationing was to fall. For the first few weeks of war, licences were being issued to essential users, and at this stage no petrol was authorised for domestic or pleasure running. However, in the confusion before controls operated smoothly, considerable extra petrol was sold. In the week ended 9 September 1939, which contained five days of rationing, petrol issues were over a million gallons in excess of the average weekly consumption.

By 20 September the position had become a little clearer, and the regulations were amended to provide for the coupon system of rationing. This system enabled the private motor-car owner, by surrendering coupons, to obtain varying quantities of petrol for domestic and pleasure running. The Oil Fuel Controller, with power to specify the earliest date on which any of these numbered coupons could be used, could quickly adjust the amount of petrol allocated for non-essential purposes, in accordance with the supplies available. Essential industrial and commercial users were issued with licences to use petrol.

The system was most effective. Two months after the outbreak of war, stocks of petrol had accumulated to the extent that it was possible to remove all restrictions. This was done on 13 November.

In the following month the British Government asked New Zealand to reimpose oil fuel rationing, so as to conserve every possible dollar for the purchase of war materials which were urgently needed from the **United States of America. Apart from this need to conserve dollar funds, the demands of war were beginning to tax the tanker fleets at **Britain's** disposal. In response to the British request, the **New Zealand Government**, not without some reluctance, reimposed rationing on 1**

February 1940. ¹ From then on, rations, particularly to the private motorist, were to fluctuate from time to time as stocks in New Zealand changed.

By way of contrast, **Australia** did not introduce petrol rationing until October 1940, and even then there was no severity in the rations for the private motorist until April 1941. Actually, in February 1940, New Zealand was the only member of the Commonwealth, apart from **Britain** herself, in which petrol was rationed.

Before the war, stocks of petrol held in New Zealand had ranged between 25 million and 30 million gallons, and the rate of importing was moving up towards 100 million gallons a year, which level it passed in 1938.

Supplies fell rapidly in the first three years of war, and imports in 1942 were at their lowest for any year since 1933. The very low level of imports followed the entry of **Japan** into the war in December 1941. Many motorists, on **Japan**'s entry, foresaw this

¹ Weekly sales in this unrationed period were about a third higher than under rationing but most New Zealanders take their holidays around Christmas and the New Year.

reduction in the availability of petrol and there was an undignified scramble to forestall any possible official reaction. A local daily reported on the rush to redeem all available coupons: ¹

‘Petrol re-sellers in **Wellington** yesterday had their busiest period for many a long day. After the news of the outbreak of war in the **Pacific** became known motorists, evidently expecting restrictions in supply, made an unprecedented rush to petrol stations.

‘Califonts, kegs, kettles, demijohns, vinegar and whisky bottles, tins of all descriptions, and even a new dustbin, were produced to hold petrol as all available coupons were handed in. However, these activities were

curbed to some extent in the afternoon when the Oil Fuel Controller, Mr G. L. Laurenson, banned the use of all receptacles other than vehicle tanks, and the use of numbers 12 and 13 coupons was cancelled....'

Chart 71 shows imports of petrol from 1934 to 1948.

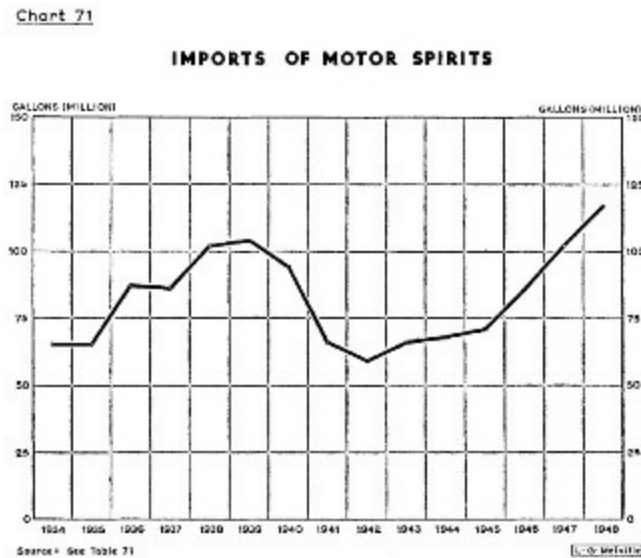


Chart 71
IMPORTS OF MOTOR SPIRITS

By the middle of 1942 the supply position for road transport was critical. In June the Prime Minister made a statement warning

¹ *Dominion*, 9 December 1941.

the people of the seriousness of the situation: ¹

'The future prospective stock position of both petrol and tyres was very grave, said the Prime Minister (Mr Fraser) last night. There was a veritable famine in tyres, and petrol stocks were just sufficient to carry on the country on a very careful rationed basis. Nevertheless, whenever supplies of petrol and tyres could with due regard to national safety be released to private motorists a ration would be made available. It was, however, very difficult to make any forward estimate of the petrol and tyres position....'

WAR ECONOMY

ZONING AND RATIONALISATION OF ROAD TRANSPORT

Zoning and Rationalisation of Road Transport

Early in the war some firms had voluntarily curtailed or zoned delivery services in response to petrol restriction and other shortages. If these and other voluntary measures had been considered inadequate, powers already existed to bring taxis and town carriers under control. However, not until after the evacuation of **Dunkirk** in May 1940 had emphasised the length and bitterness of the coming struggle, did zoning become a part of official policy. The Delivery Emergency Regulations of August 1940 gave the Minister of Supply power to apply zoning schemes to traders' deliveries of goods, such as bread, milk, coal and groceries, in any given area. By 1942, seventeen zoning schemes were in operation.

Passenger services and goods services running out of or between towns had been licensed since 1932 and 1933 respectively under the Transport Licensing Act 1931. By the Transport Law Amendment Act 1939, town carriers, taxis and certain classes of trucks were brought under the Act, thus making virtually all forms of road transport service subject to control. In fact, however, full control was concentrated on goods services, while voluntary zoning and rationalisation applied, in the main, to passenger transport services and taxis.

As a result of the extreme shortages of road transport supplies in 1942, transport services were more rigorously controlled. New regulations on 24 June gave the Minister very wide powers.² New Zealand was to be divided into districts, each with a **Goods Transport Control Committee**, whose function was:

- (a) To receive orders for the carriage within its district of goods or stock by motor vehicles.
- (b) To allocate such orders among available goods service licensees, having regard to the necessity of conserving motor vehicles and supplies of motor spirits and tyres and the

desirability of making a fair and equitable allocation among the available licensees.’

The regulations made similar provisions for taxis. Another regulation tightened up existing arrangements to eliminate or zone delivery services. ¹

The zoning and rationalisation measures embodied in the June 1942 regulations were not considered sufficient to meet the deteriorated supply position, and new economy measures were sought. In the following month, for example, a maximum speed limit of 40 miles an hour was imposed with a view to minimising the wear and tear on tyres. ²

A ministerial assessment of the measures taken in 1942 was reported in a [Wellington](#) daily paper: ³

‘The former Minister of Transport (Mr Semple) in an interview today, said he was relinquishing the portfolio of Transport at a most critical period in road traffic, generally brought about by shortages of tyres and petrol, but that he had every confidence that his successor, Mr O'Brien, and those engaged in the road transport industry, would be able to overcome the difficulties that lie ahead.

“Some three or four months ago,” said Mr Semple, “I was entrusted with the task of organising the road transport industry on a basis which would meet the precarious situation which faced the industry as a result of the tyre shortage. I travelled the length and breadth of this country addressing meetings of the parties concerned and giving, as far as I was able to do, a complete picture of the situation with which the industry was faced. As a result of the measures deemed necessary to safeguard the industry, the transport licensing authorities, goods transport control committees, and the zoning officers have given excellent service.

“I am now in a position to say that the action taken has resulted in an actual saving of 25,500,000 vehicle miles without any serious interference with our national volume of production, so much of which

has, of course, been built up on road transport. This saving represents approximately 2,500,000 gallons of petrol and over 6,000 commercial tyres.””

The Goods Transport Control Committees continued in operation until August 1945. Petrol rationing was abolished in June 1946, but was reintroduced in November 1947, rationing being left to resellers. This method proved unsatisfactory, and, in March 1948, the wartime coupon system was reinstated until the final abolition of petrol rationing in May 1950.

² The Transport Control Emergency Regulations (1942/190).

¹ The Delivery Emergency Regulations (1942/191).

² The Traffic Emergency Regulations 1942 (No. 2) of 29 July 1942. The supply position for tyres is discussed more fully in

Chapter 6.

³ *Evening Post*, 23 December 1942. See also Parliamentary Paper H-40, Annual Report of the Transport Department, 1943, p. 3.

WAR ECONOMY

WARTIME TRANSPORT ARRANGEMENTS

Wartime Transport Arrangements

New Zealand's predominantly undulating landscape makes transport a comparatively costly sector of her economy at any time. Transport problems were aggravated in time of war by shortages of fuels. Petrol supplies became scarce in allied countries generally as the vulnerable tankers were attacked, and as some of the major supplying countries fell into enemy hands. Shortages of petrol tended to throw emphasis on rail transport, but here again there was a fuel problem as demand for coal exceeded supply, and the smooth flow of coal to users was hindered at times by transport difficulties and industrial unrest in the coal mines. Except for municipal tramways, and for some suburban railway lines, electricity had not yet moved far enough into transport systems to be able to take a major part of the load away from the coal and petrol users. In any case, electricity, too, was in short supply for much of the war period.

Transport operators of all types were needed both in New Zealand and overseas for military operations, and, as more and more men were recruited, all normal transport service in New Zealand tended to become seriously short of staff. Staffing difficulties on the waterfront were aggravated by recurring industrial disputes and by working arrangements which, partly from lack of supervision and partly from lack of co-operation on the part of the workers, failed to use the available labour effectively. Apart from the short sharp strike of railway staff in early 1945, which brought to an end the policy of rigid stabilisation of wages, ¹ there was comparatively little industrial unrest in other parts of the transport industry.

On the industry, faced with fuel shortages and depleted staffs, fell a considerable extra burden as a result of movements of military personnel and stores, including, after June 1942, work for the **United States**

Forces.

There was every need for a supreme effort of co-ordination in an industry where duplication of services had always been a problem. Zoning of deliveries, elimination of less essential services, licensing and restriction of competing services, restriction of unnecessary passenger journeys through a permit system and even the restriction

¹ See also

of the movement of some types of goods, were all resorted to for varying periods and in varying intensity.

The necessity to ration petrol and later to restrict the supply of tyres to the private motorists threw a considerable extra passenger load on road passenger services, on the railways, and on the tramways and taxis. In its 1943 annual report the Transport Department wrote, ¹ 'Long-distance civilian motor-vehicle traffic has largely disappeared from the roads.'

Petrol and tyre shortages were general and meant that road passenger services could not absorb all the extra load. Manpower difficulties were somewhat less severe in road transport because petrol and tyre restrictions had, by the time manpower became really scarce, led to considerable reductions in the less essential services.

Coastal shipping which, particularly in New Zealand, with its long shore line running parallel to the main road and railway routes, could have taken a share of the increased transport load, was restricted in its activities by shortage of vessels. Many had been requisitioned for naval use. For trade between the North and **South Island**, particularly with the **West Coast**, shipping shortages became severely restrictive for a time. In addition an extra load was put on coastal shipping and on internal transport systems generally by restrictions on the number of ports of call for overseas vessels in order to make maximum use of scarce shipping.

An inevitable result of petrol and tyre shortages, and of limitations on the availability of manpower generally, was to increase the relative importance of the **Railways Department** in the New Zealand transport scheme. To fuel its locomotives, the **Railways Department** relied predominantly on coal, which was mined in New Zealand; and it is regrettable that uncertainties in the coal supply forced the Department to restrict its services so severely during the war period. In spite of

restrictions on less essential train services, the work load handled successfully by a depleted staff increased by about 50 per cent. With the possible exception of the short period of the January 1945 strike, the **Railways Department's** war record is a proud one.

For the most part the transport industry in New Zealand achieved remarkable heights during the war years. Co-ordinating committees, management, and staffs triumphed over very considerable difficulties.

¹ Parliamentary Paper H-40, p. 1.

WAR ECONOMY

CHAPTER 16 – FUEL, POWER, AND SERVICES FOR PRODUCTION

CHAPTER 16

Fuel, Power, and Services for Production

New Sources of Power

WARTIME shortages of fuel and power were by no means restricted to the transport industry. Production, especially in manufacturing industries, was for a time hampered in meeting the demands of war by inadequate supplies of coal and electric power.

The war was but part of an era when manufacturing was increasing in importance relatively in the New Zealand economy and when motive power for manufacturing industries was tending to move over more and more to electricity. Steam engines, as sources of motive power in factories, decreased from 51,000 horsepower in 1937–38 to 37,000 horsepower in 1947–48. They provided 20 per cent of all factory horsepower in 1937–38 but less than 9 per cent a decade later. Though probably accelerated by wartime shortages of coal, the decline in the importance of steam power was already well under way when the war started.

In factories, oil was also starting to take the place of coal as a fuel for engines; 5 per cent of factory horsepower came from oil engines in 1937–38 and 11 per cent in 1947–48.

The waning importance of the steam engine as a source of motive power in factories did not cause a proportionate fall in the demand for coal. Many industries required large quantities of heat. Here coal could usually retain its place against electricity, though it tended to find a more serious rival in oil.

In the decade up to 1947–48 electric motors, which by 1937–38 were providing 72 per cent of the power available in factories, moved up to 80 per cent. Meantime the volume of output of factories had increased by over half, aided by a much increased overall use of power and an associated rise of 13 per cent in the volume of output per person

engaged.

There is no statistical record of the electric power used by factories alone, but electric power used for all commercial and industrial purposes increased by two-thirds in the ten years. This very rapid rate of growth in the use of electric power seems to be necessary as part of the conditions for the steady increase in production per labour unit ¹ so often found in modern industry. The mobility, instant availability and general convenience of electric power have enabled manpower to be used more and more effectively.

Apart from wartime or depression interferences, the long-term trend for New Zealand has been, in general terms: labour force increasing 2 per cent a year, electric power usage increasing 8 per cent a year, production per head of labour increasing 2 per cent a year, and volume of production increasing 4 per cent a year. These growth rates are not independent of one another.

In the decade 1937–38 to 1947–48, the number of electric motors used on farms approximately doubled, tending to take over work done by internal combustion engines, which increased in number only 11 per cent in the decade. Agricultural tractors were also coming into their own. There were under 7000 in use in 1937; over 23,000 in 1947. Many tractors were supplied by the **United States of America** under Lend-Lease, and helped New Zealand farming to play its part in feeding **United States** forces in the **Pacific**.

This was the age of mechanisation of farming, with the horse being steadily replaced by the tractor. Better methods and better equipment were becoming generally available and, in spite of rising farm production, there was a slow but progressive decline in the numbers of men required to work on farms.

Meantime household demands for electric power were increasing by leaps and bounds. Households took nearly half of all power sold in 1939 and were increasing in relative importance as power users. Their demand

for power had almost doubled by 1946. In households the extra convenience of electric power was increasing its popularity for lighting, cooking, and heating, while new gadgets using electric power were creating their own demand.

Wartime difficulties in obtaining sufficient coal to meet all the demands for it were discussed in

Chapter 15. It is probable that uncertainties in the supply of coal played some part in bringing about the movement towards electricity in factories and elsewhere. However, in the main, the movement was part of a longer term tendency for electric power to increase in relative importance.

¹ Production per labour unit is commonly called productivity. It is normally increased by better equipment, more power in the hands of each worker, and better methods of work. Productivity is sometimes measured per unit of capital used or per unit of some combination of labour and capital used.

Coal for Industry

Coal consumption at the outbreak of war was running at about 2,400,000 tons a year. It increased, by 1943, to rather more than 2,800,000 tons a year, at which level it was to remain until it declined in the early 1950s.

Coal used in factories ¹ increased from 540,000 tons in 1939 to 750,000 tons in 1945. A good deal of this extra coal was used for heating rather than for generation of steam power. As we have seen, ² horsepower of steam engines in factories decreased considerably over this same period. In 1939 nearly two-thirds of all coal used in factories was required for dairy factories, meat works, lime crushing and cement making. These industries increased their coal consumption 14 per cent over the war years. The diversity of new manufacturing industries which sprang up during the war brought new demands for all forms of power and, in spite of the tendency to swing to electricity and oil, the demand for coal for factories increased by 39 per cent between 1939 and 1945. In the same period electric power consumption by factories and commercial undertakings increased by 55 per cent.

The bulk of New Zealand's electric power was water generated, 77 per cent of the horsepower of the electric supply installations being of this

type in 1937–38. Even here, coal-burning installations were tending to lose position relatively. The steam powered generators accounted for 18 per cent of the horsepower of all electric supply installations in 1937–38, but for only 10.5 per cent by 1947–48. In the latter year 96 per cent of electric power was generated in hydro-electric units.

¹ Excluding electricity and gas generation.

² p. 423.

Domestic Cooking and Heating

For domestic use, electricity was tending to push aside gas and coal. Electric ranges for cooking were gaining in popularity at the expense of gas ranges; electric heaters were taking over from gas heaters and open fires. Nevertheless, gas production increased by a quarter between 1939 and 1945.

Use of coal in gasworks increased from 226,000 tons in 1939 to 300,000 tons in 1945. Gasworks were the main users of imported coal; they took 78,000 tons in 1939, but had to be content with smaller quantities in the later war years as coal imports declined. In 1944 they used 41,000 tons of imported coal and in 1945 only 800 tons. ³

Inadequacy of stocks held by gasworks, and irregularity in supplies of suitable coal from the **West Coast**, led to shortages and interruptions in gas supplies in 1945.

The increase of 25 per cent in gas production over the war years seems quite fast until it is compared with the 67 per cent increase in electricity generation. ¹ The slower rate of increase in production of gas was due partly to inadequacy of coal supplies and partly to the continuing tendency for electricity to take over from gas for domestic cooking and other purposes.

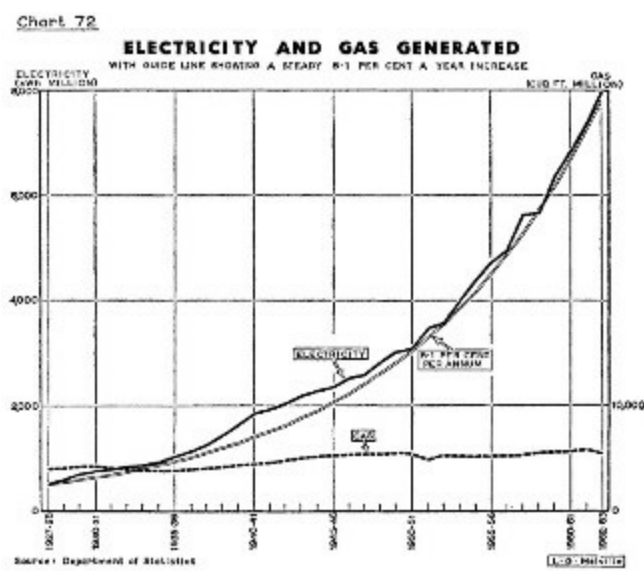


Chart 72

ELECTRICITY AND GAS GENERATED

WITH GUIDE LINE SHOWING A STEADY 8.1 PER CENT A YEAR INCREASE

³ Presumably taken from stocks. No imported coal arrived in 1944 or 1945. See also p. 410.

¹ As a further comparison, manufacturing output increased 36 per cent.

Coal Supplies

The repeated shortages of coal for railways use and the restriction of less essential railway services were discussed in

Chapter 15. Because of its key position in the transport industry, and the extremely heavy extra wartime load it had to carry, the **Railways Department** needed a high priority for available coal. Nevertheless its coal supplies continued to be uncertain. After the war, it was to convert many of its locomotives to oil burners, but during the war the Department remained predominantly dependent on coal.

Coal used for ships bunkering decreased over the war years from 159,000 tons in 1939 to 118,000 tons in 1945. It was to continue to decrease after the war. There was an increasing tendency for ships to burn oil instead of coal.

Supplies of coal remaining for civilian and other purposes fluctuated around 1,000,000 tons from about 1934 right through until well after the war; this in spite of the fact that the population increased by nearly one-fifth between 1934 and 1948. There were recurring shortages of coal for domestic use, but electricity, because of its extra convenience, was steadily being substituted for coal for space heating, in spite of the fact that some authorities considered electricity to be less economical than coal for this purpose.

Irregularities in coal production, as well as the extra convenience of electricity for heating and power, encouraged the growing tendency for electricity to take over. There were shortages of electricity, too, in the war years, but supplies were more reliable than coal supplies. Up to 1945, coal production increased each year. However, it could not keep pace with the demand from railways, factories and gasworks, all of which were hampered by inadequate stocks and uncertain arrivals of coal.

Electricity on the Upsurge

Electricity generation in New Zealand was by no means new in the pre-war decade. As far back as 1885 a hydro-electric power plant had been installed in Otago. ¹ Electric power development was essentially a government undertaking. In 1903, the Water Power Act had reserved to

the Crown the sole right to use water for generating electricity.

Electricity was rapidly moving into new uses in the pre-war years and, in the five years up to 1939, electric power generation increased by 65 per cent. This rapid expansion in supply was not to satisfy demand for long. Demand increases of 9 per cent or more a year were usual and any hesitation for a few years in the expansion of generating plant would see demand ahead of supply.

Electric power shortages developed in the [North Island](#) in the war years, a misfortune which hampered the war effort and should have been avoided. Efficient production requires, above all, adequate power in convenient form.

Wartime shortages of electric power cannot be explained entirely in terms of an unexpected increase in demand, although domestic and manufacturing uses were expanding rapidly, and difficulties in getting adequate coal supplies tended to switch demand to other sources of heat and power. The real cause of the difficulty was that hydro-electric development had been neglected before the war. From 1936 to 1938 expenditure on hydro-electric development was far less than it had been at any time during the depression. Indeed, it was not until the war was well under way that depression expenditure was exceeded.

From 1930 to 1935, under the influence of the depression, power consumption in New Zealand had increased by only about 5 ½ per cent a year. It was, no doubt, this comparatively slow rate of growth in consumption which influenced the very conservative estimates which were then made about future power requirements, and led to the curtailment of development.

From 1935 to 1941, however, the increase in consumption averaged over 12 per cent a year. With curtailed expenditure on hydro-electric development, demand soon overtook generating capacity.

¹ By the Phoenix Quartz Mining Company on the Shotover River.

The first government hydro-electric station was at Lake Coleridge in 1915.

Faulty Pre-war Power Estimates

The reduced pace of hydro-electric power development in the pre-war years was no doubt attributable initially to faulty judgment of the 1932 **National Expenditure Commission**, which counselled strenuous opposition to any move for the commencement of further works. ¹

However, not all the blame can be placed on the **National Expenditure Commission**. In its 1935–36 annual report, the **Electric Power Boards and Supply Authorities Association**, in estimating requirements up to 1943–44, said:

‘The position in the North and South Islands respectively in regard to available generating capacity, installed plant and maximum demand for 1943–44 is set out in attached figures. From these figures it appears that the necessity for developing an entirely new (hydro-electric) scheme is remote.’ ²

Power supplies seem to have been sufficient at the outbreak of war, but with inadequate provision for expansion. By 1940 there were signs of impending shortages in the **North Island**, and in the following year rationing was frequently under consideration.

¹ See also p. 47.

² See also *NZPD*, Vol. 273, p. 99.

In March 1941 a **Wellington** daily paper reported:

‘The unlikelihood of electricity being rationed during the coming winter was mentioned by the Minister of Public Works, Mr Armstrong, during his visit to **Napier** when on his way to the Wairoa, **Gisborne**, and

the **Cambridge** districts. He said the Minister of Mines, Mr Webb, was of the opinion that all the coal necessary for industrial and domestic purposes could be produced in New Zealand.

‘The rapid extension of secondary industries had created a demand for electric power that had never been anticipated, said Mr Armstrong. Only in years to come, when complete electrification of industry was accomplished, would the wisdom of the Government's decision to continue the Tuai ¹ scheme be appreciated.

‘Discussing Public Works policy generally, Mr Armstrong said that only works of national importance would be continued during the war. Manpower was the chief factor to be considered.’ ²

It is true that wartime requirements expanded manufacturing needs, but it is also true that hydro-electric expansion was not pushed forward fast enough in the pre-war years, especially when the possibility of war was apparent. ³ When the danger was finally realised, it was too late.

A good picture of the overbalancing of surplus into shortage of power was given after the war by the Hon. John Robertson in a debate in the Legislative Council. He said: ⁴

‘... We have made tremendous advances, but if we look at consumption since 1935 we find there has been an increase of 152 per cent. Why? Well, since 1935 the number of electric ranges has grown from thirty-nine thousand to one hundred and thirty-five thousand; the figures for water heaters are fiftythree thousand and one hundred and sixty thousand; milking machines with electricity as their motive power have increased from seventeen thousand to thirty-two thousand; and so it goes on. The total units generated have reached unprecedented heights, but that does not get rid of the fact that we are still up against a shortage. In the period 1938 to 1939 the demand for electric power jumped very appreciably, but it is fair to all parties to point out that at that time the number of generators that were in service to carry the increased load were quite ample, and, at

¹ In 1939 a third generator of 20,000 kilowatt capacity was added to bring the capacity of the station to 52,000 kilowatts. Tuai was to be the control centre for the three stations of the Waikaremoana scheme, Kaitawa, Tuai and Piripaua. The Minister probably referred to the Tuai scheme in this broader sense. (Author's footnote.)

² *Dominion*, 31 March 1941.

³ See also p. 46.

⁴ *NZPD*, Vol. 273, p. 99, 27 June 1946.

the same time, more plant was on order for the years ahead, for it takes some four years to construct a generating station. However, with the outbreak of war it became impossible to get that plant into the country, and with the demand for power all the time going onwards and upwards the State Hydro-electric Department was driven to every possible shift in order to increase its generation.'

As could have been expected, it was difficult enough during the war years to provide new plant for normal expansion, let alone to catch up on neglected pre-war expansion and to provide for special war needs at the same time. The first warning of pending power shortages had come in 1936, when the rate of increase in power consumption stepped up. Much of the wartime difficulty arose from tardiness in heeding this warning. A war had been threatening, but generating capacity had not been pushed far enough ahead of power needs to cope with the interruptions in hydroelectric development which war was likely to bring.

Wartime difficulties in power development should not be underestimated. The only criticism is that they were not foreseen. A recent writer ¹ said of the Cobb power station, '... Cobb did not come into operation until mid-1944, mainly owing to the shortage of men and

materials during the war.’ Of Kaitawa he wrote, ‘Owing to delays in the delivery of machinery from overseas, due to the war, the Station did not commence operation until 1948’, and of ‘Tekapo, ‘Construction of the tunnel to convey water from the lake to the power station began in 1938 but was discontinued during the war and did not resume until 1946.’

¹ N. M. Speer, *The Electrical Supply Industry in New Zealand*.

Early Restraints on the Use of Power

The need for restraint in the use of electric power became apparent in 1940 in the **North Island**. Demand, at times of peak loads, threatened to exceed generating capacity. Demand, moreover, was increasing rapidly with no prospect of any adequate increase in generating capacity.

In March 1941 the Electricity Controller asked supply authorities in the **North Island** to regulate their loads so as to keep their weekly use of energy to not more than 4 per cent above 1940. In the meantime, restraint on consumers would be by persuasion rather than rationing, but the Controller made it clear that whether rationing would be necessary or not depended on the amount of rain.

‘... However, this could not be foretold. The balance of power required above that produced by hydro-stations would come from steam-operated plants at King's Wharf, **Auckland**, and Evans Bay, **Wellington**.

‘Big problems were presented in the operation of these plants, particularly when running to full capacity, said Mr Kissel. An undertaking had already been given that the Evans Bay plant would be supplied with its needs of coal. King's Wharf operated on **Waikato** or Southland slack coal. A request had been made for an increase in slack coal production from 40,000 to 180,000 tons yearly. This was a great increase for any industry to face.

‘Though the Coal Controller made valiant efforts last winter and was able to meet the demand, Mr Kissel was a little apprehensive that he might not be able to do so in the coming winter. However, instead of 180,000 tons as estimated 6 months ago it was now believed that 130,000 tons might be sufficient. The rate of increase in the demand for electricity might still further drop. A 7 ½ per cent increase in the demand would mean that 127,000 tons would be required for King's Wharf. The Coal Controller, while giving no guarantee, said he could deliver this.’¹

As a measure to save electric power, daylight saving, which normally concluded on the last Sunday in April, was extended throughout the winter, starting in 1941; and in May of this year the Electricity Controller arranged a radio campaign to persuade the public to economise in the use of power. By these means the supply authorities struggled through the 1941 winter without any serious breakdown.

In May 1942, following a spell of cold weather, the power situation in the **North Island became serious, requirements being too high during the peak hours of 4 p.m. to 6 p.m., which took the brunt of the normal cooking load. This brought about the first statutory enactment against users, the Electricity Control Order 1942, which forbade the use of electric radiators and space heaters in business premises or places of amusement during these peak hours.² To back up this measure the Factory Controller, on 24 June, issued an Order prohibiting the manufacture and sale of radiators and of practically all domestic electrical appliances.³**

A ministerial statement on 11 June 1942⁴ summed up the circumstances leading to these restrictions:

¹ Reported in *Evening Post*, 7 March 1941.

² The restrictions applied from Mondays to Fridays, in the **North Island** only.

³ **The Electrical Appliances Control Notice, 1942.**

⁴ *Evening Post*, 12 June 1942.

‘... In a joint statement issued last night the Minister of Supply (Mr Sullivan) and the Minister of Public Works (Mr Armstrong) said that the present position with regard to the supply of electricity from the Government system in the **North Island had become critical. Due to the colder weather and the shorter days, demand for electricity had suddenly increased, and the generating stations in the **North Island** were working to full capacity. In addition to the hydro-stations, the fuel stations, large and small, were fully loaded at peak times, which at this time of the year were between 4 p.m. and 6 p.m.**

“... It is also necessary that economy be practised in the use of electricity at all times,” added the Ministers. “A very large amount of oil is being used to generate electricity and this has to be imported, and this means the use of ships. ¹ Coal, which is required for industries and householder use is also being used at the rate of hundreds of tons a week. It is, therefore, incumbent on every user of electricity to avoid waste, and thereby help to avoid irksome rationing and interruptions in the supply of electricity, so assisting New Zealand's national economy under wartime conditions.”

For the winter of 1943, prospects for electrical supply were somewhat improved by the installation of the first generating unit of 20,000 kilowatts at Piripaua in December 1942. ² Despite a number of difficulties it was decided to allow supply authorities an increase in allocation of 4 per cent on their 1942 usage. But demand moved inexorably upwards and, with all stations becoming overloaded, further restrictions were soon necessary.

On the occasion of a temporary breakdown of one of the generating units at the Arapuni Station, ³ the Minister of Works, Mr Semple, and

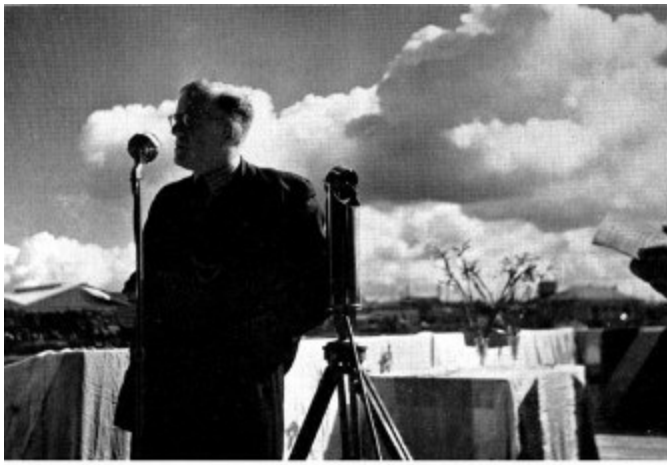
the Minister of Supply and Munitions, Mr Sullivan, joined in saying, in June 1943: ‘The whole electrical generating system has been working under a severe strain, producing a very much higher level than the system could be expected to carry continuously. An appeal is made to everybody to economise in the consumption of electric power to the utmost extent possible so as to avoid the only alternative, which is the complete stoppage of

¹ For example, the steam generating plant at Evans Bay used 26,000 tons of coal and 10,000 tons of oil in 1942. (Author's footnote.)

² A second unit was installed in 1943, bringing the station to its full capacity of 40,000 kilowatts.

³ Arapuni had six units at the outbreak of war. Two more were added to cope with increasing demand during the war. In these years Arapuni was generating over half the **North Island power supply.**

power in some districts during certain periods of the day....’



THE CONTROLLER OF SHIPBUILDING SPEAKS AT A LAUNCHING
Outstanding among the wartime economic controllers was Mr (later Sir) James Fletcher, Commissioner of Defence Construction and later Controller of Shipbuilding

THE CONTROLLER OF SHIPBUILDING SPEAKS AT A LAUNCHING

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KAURI FOR SHIPBUILDING

A coastal scow delivers a cargo of kauri and other New Zealand timber

KAURI FOR SHIPBUILDING

A coastal scow delivers a cargo of kauri and other New Zealand timber

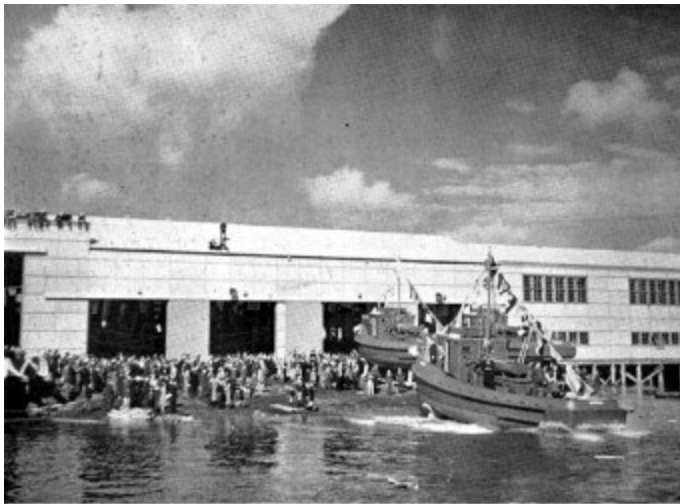


PREFABRICATION SPEEDS SHIPBUILDING

Prefabricated keels of tow-boats ready for transport to an Auckland shipyard

PREFABRICATION SPEEDS SHIPBUILDING

Prefabricated keels of tow-boats ready for transport to an [Auckland](#) shipyard



SHIPS FOR THE UNITED STATES FORCES

Launching New Zealand built tow-boats, Auckland, August 1943

SHIPS FOR THE UNITED STATES FORCES

Launching New Zealand built tow-boats, [Auckland](#), August 1943



PLUGGING THE MANPOWER GAPS

Many older and retired people returned to industry. An 83-year-old cutting metal for Army buckets

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Many older and retired people returned to industry. An 83-year-old cutting metal for Army buckets

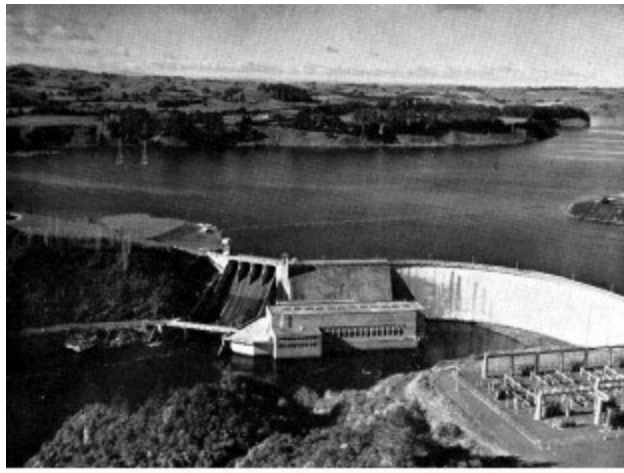


WOMEN IN MEN'S JOBS

Engineering industries made munitions and a variety of essential civilian goods which could not be imported

WOMEN IN MEN'S JOBS

Engineering industries made munitions and a variety of essential



WARTIME HYDRO-ELECTRIC DEVELOPMENT

The Karapiro Station, commenced in 1940, was continued under considerable difficulties during the war, but did not begin generating until 1947

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FUND-RAISING CAMPAIGNS

£242 million was raised by loans in New Zealand for war purposes

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Restrictions imposed in 1943 and 1944 included reduction of radio broadcasting hours, metering of water heaters, and restrictions on non-essential lighting in shop windows and under verandahs.

Power shortages became progressively worse over the war years and in due course threatened to restrict the productive capacity of industry.

Chart 73 shows the increase in use of electric power for various purposes from 1939 to 1946.

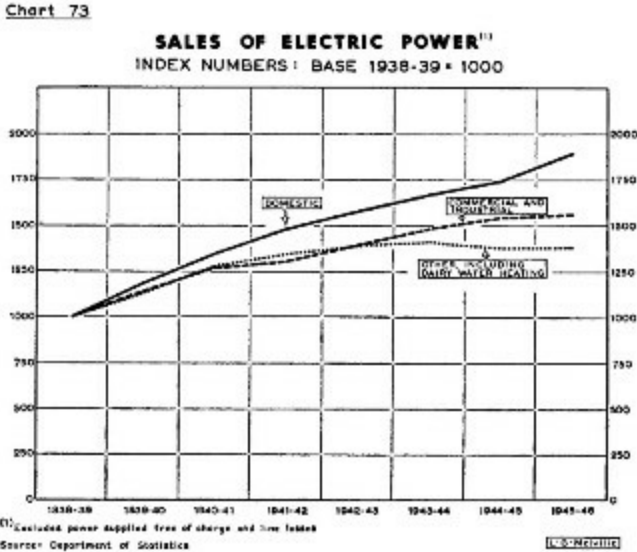


Chart 73
SALES OF ELECTRIC POWER
INDEX NUMBERS: BASE 1938-39 = 1000

Power Difficulties for Manufacturers

As shortages of electric power became more serious, it was necessary to restrain the increasing demands for power for industry. This was a ticklish problem of control. The war effort required increasing production and the establishment of new industries. It would be stultified if producers were starved for power. From 1943 the Factory Controller worked with the Electricity Controller, giving advice on priorities for the supply of power to new industrial machinery. Power Boards were required by an Electricity Control Order ¹ to get approval before connecting electricity to plant extensions or to new equipment. The position became especially difficult in **Auckland**, where the faster rate of expansion of population and industry aggravated supply shortages. It became necessary to weigh up the need for each new product against the competing needs for the scarce power the new installation would consume.

Increasing power shortage led to a very restrictive application of the

Electricity Control Order, and the position became so serious as to lead, in April 1945, to a direct conflict between the Factory Controller's policy of increasing essential production and the Electricity Controller's efforts to conserve power. The Factory Controller complained that 'Under existing conditions critical production is being hampered by the non-supply of power.'²

As a result of this clash, War Cabinet fixed an order of priority, with critical civilian production following immediately after New Zealand forces' requirements. However, the Factory Controller was still unable to get sufficient electric power and, on 26 June 1945, he asserted that 'power is not available for some very important and critical civilian production which War Cabinet has directed should be regarded as second priority.'

As a result of the Factory Controller's representations, a rather more liberal policy was adopted towards the supply of electric power for those industries which were concerned with 'critical civilian production'.

The centralised control over supply of power to factories ceased in November 1945, when the local supply authorities were authorised to issue permits for industrial installations at their own discretion.³

Restriction of power to domestic users was to continue in varying degrees until 1959 in the North Island and there would be restriction in the South Island from 1947 until 1957.

¹ Amendment Order No. 1 of 22 November 1943 to the Electricity Control Order 1943 forbade Supply Authorities in the North Island, subject to any special directions given by the Electricity Controller, to issue permits for new or extended electrical installations for a number of specified uses.

² Factory Controller to Minister of Supply, 12 April 1945. Copy on Industries and Commerce file 54/11.

Belated Hydro-Electric Development

Deferred hydro-electric development showed its effects at a most awkward time. Some of the difficulties in extending and completing existing schemes have already been mentioned. The worsening supply position for electric power forced the Government to give priority to the development of new hydro-electric schemes during the war, when it was most difficult to find sufficient resources for even a fraction of normal development work.

In October 1943, the Government outlined a ten-year plan for electrical development, involving four new stations, to use almost the whole of the fall in the Waikato River from Lake Taupo to **Cambridge**. The four new stations were to be developed within the next seven or eight years. However, it was too much to hope that rapid development would be possible in wartime. Expenditure was stepped up after 1943, but not until 1952 would the addition of the giant Maraetai to the chain of **Waikato** stations enable many of the restrictions to be removed.

In the event, hydro-electric development was one of the few aspects of Government construction expenditure, apart from actual defence works, which showed a higher rate of expenditure in the war years than before the war. Even this high level of wartime expenditure was soon to appear moderate as the full impact of the accumulating demand for power made itself felt. What had appeared to be high expenditures in wartime were doubled, tripled, and quadrupled before generating capacity, in the late fifties, showed any sign of getting ahead of demand.

Government Administrative and Other Services

The task of administering the war effort and bringing about the necessary diversion of resources away from civilian use fell almost

entirely on state servants who were responsible for carrying out the Government's policy.

Special wartime control procedures, rationing, manpower direction, bulk purchasing arrangements on behalf of the United Kingdom Government, defence construction, supply and a host of other new functions were administered by government departments during the war.

The Government became very active in promoting new industries which could produce supplies for war or manufacture essential civilian goods previously imported. Much war production was arranged on a contract basis, but the Government often supplemented this by actual participation. For example, the **Department of Agriculture** grew vegetables for the Services Vegetable Production Scheme and the railways workshops made munitions.

Formidable volumes of administrative work were involved in the defence construction programme, the shipbuilding programme, and the making of munitions by industries normally engaged in civilian production.

The greatest part of the burden of administering the stabilisation scheme fell on public servants, who advised on financial policy and carried out price, wage and cost controls.

Special war taxation, war loans and war expenditure all placed an extra load on government departments.

The intensity of the war effort necessitated government participation or influence in most economic activities, and comment on one or other government department is included in every chapter of this book.

In April 1939, 17,200 people were employed by the Government, apart from those in the **Railways Department** and the **Post and Telegraph Department**.¹ Under pressure of extra wartime responsibilities, the number rose to 30,600 by April 1945. Long hours

were often worked, and in many departments the regular working week had been increased to 44 or 48 hours by the end of 1942.

Over these years there was a very marked change in the quality of staff employed in the public service. In spite of several years of quite rapid expansion before the war to cope with the Labour Government's public works, housing, and welfare programmes, the public service was, in 1939, still predominantly a staff of permanent officers who had been recruited as cadets in their teens.

In 1930 a fifth of the staff had been temporary employees, but the need for rapid recruitments to cope with increasing government functions after 1935 had raised the proportion of temporaries to over a third by 1939. A much more sweeping change was to come. After six years of war, temporaries would outnumber permanents and make up 56 per cent of the staff.

Recruitment for the armed forces created difficulties in public service staffing, as it did in many other activities. By April 1942 6000 were serving, and the number rose to a maximum of 7400 in May 1943, when it represented more than a quarter of the total staff.

Extra staff had to be found, to make good losses to the services and for the wartime expansion of government activities. Generally the policy was to make temporary appointments as replacements for men in the services. The intention was to release these temporaries at the end of the war, together with those who had been required for the special wartime agencies. However, with the continued expansion of state activities, a fair proportion of them were retained. ²

¹ The staff in the latter two Departments were outside **Public Service Commission** control. **Railways Department** staffing was discussed in

Chapter 15. Post and Telegraph Department staffing is discussed later in this chapter.

² One of the problems facing the Public Service after the war was to find a satisfactory basis for absorbing into the permanent staff large numbers of temporary public servants who had been recruited during the war.

Women in the Public Service

The temporary staff included large numbers of women, many of whom had sought wartime jobs in the public service. The numbers of women in the public service, excluding a few on the permanent staff, reached a maximum of over 7000 in 1944. Some 5000 were clerical workers, the majority engaged to fill wartime vacancies. Many of these women had never before been in regular employment, and fewer still had experience in the type of work required of them in the public service. Generally speaking, they adapted themselves well. The incidence of sickness and other absences from work was much greater among wartime appointees than among other women employed in the public service, but this was in part explained by the fact that their average age was comparatively high and many were married with considerable domestic responsibilities.

Wartime experience, combined with the changed general employment situation, was to have a profound effect on attitudes to the employment of women in the public service. In 1939, 5 per cent of the clerical workers were women; by 1947 the proportion of women was to be 25 per cent.

Communications

In New Zealand almost all communications are the responsibility of the Government, and are administered by the Post and Telegraph Department. This Department also operates a Post Office Savings Bank and, because of its many branches, acts as agent for a variety of

government transactions.

The Post and Telegraph Department lost some 6000 men to the armed forces, out of a total staff of 12,000. These losses were partly offset by the engagement of 4000 women for clerical work, telegram, parcel and letter delivery, driving and light manual work. In wartime the Department was called upon to provide communications facilities for New Zealand and **United States** military installations in New Zealand. Post offices also administered national savings accounts and handled a variety of other special war work, but there was a marked decline in some of the Department's normal activities. For example, the number of letters carried fell by 14 per cent from 1939 to 1945.

Local Authority Services

A general impression of the reduction in local authority activities during the war is given by the fall in numbers engaged. By March 1943, the numbers employed by the various local authorities had fallen to well under two-thirds of the March 1939 totals. Particularly hard hit were counties, which lost over half their staff in this four-year period. Boroughs lost over a third of theirs. Much of the county and borough staff had been required for road work, which tended to be deferred during the war.

Counties and boroughs were the most voracious users of government subsidies before the war and were, in consequence, most seriously affected by the Government's determination to divert a maximum of funds and manpower to the war effort. In 1938–39 local authorities received £2·4 million from employment promotion funds: £0·6 million of this went to counties and £1·4 million to boroughs. By 1943–44 only £110,000 was paid over to all local authorities, and, though counties and boroughs received the lion's share, their expenditures had to be severely pruned.

Commenting on these changes, a Local Government Committee wrote in 1944: ¹ 'The very large amount of these subsidies, particularly

to territorial local authorities, is evident.... The falling off in recent years is due to war conditions. During this latter period, however, local authority capital works and much maintenance work have been at a standstill. The question of finance will emerge when the time arrives for recommencement both of capital and maintenance works.'

From another angle, this change in subsidy payments has already been discussed in

Chapter 5. As was noted there, men previously in subsidised employment were absorbed into the armed forces or into normal employment; and there was a certain amount of criticism from those who thought the process was too slow.

Counties were also very dependent on main highways funds from motor spirits taxation, of which they received well over 90 per cent. Payments were by way of subsidy, normally at the rate of £3 for each £1 spent by the local authority. Receipts from this source fell from £884,000 in 1939–40 to £399,000 in 1943–44.

For development work on back-country roads, grants had been made from the Public Works Fund. Here again curtailment was severe. £1.3 million was paid over in 1938–39, mostly to counties; only £128,000 in 1942–43.

Chart 74 shows changes in local authority employment.

Compared with counties and boroughs, most other local authorities were comparatively well off for staff during the war. Electric power boards, for example, had 86 per cent of their 1939 staff still with them in 1943, and 82 per cent in March 1944, which was their lowest point. Power boards, however, carried an increasing load as the demand for power increased and it became necessary to administer rationing schemes to consumers.

Urban transport boards also carried an increasing load, as petrol rationing restricted the use of the private motor car and forced more people to use public transport. Their staffs had been reduced by only 7 per cent at their lowest point, in 1942.

Harbour boards, by 1943, had just a little over three-quarters of their pre-war staffs. Some of the effects of this on the supervision of waterfront work were discussed in

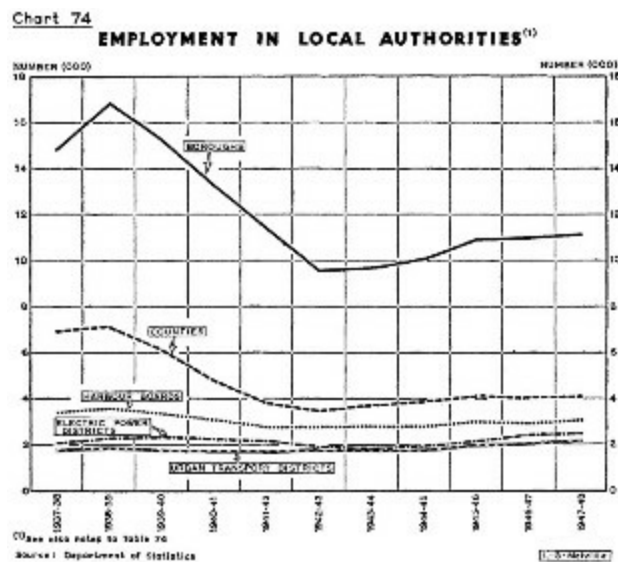


Chart 74
EMPLOYMENT IN LOCAL AUTHORITIES

¹ Parliamentary Paper I-15, Report of the Local Government Committee, p. 131.

Levels of Production

In spite of exceptions, such as railway transport and electricity supply, the general tendency was for services to the public and to industry to be reduced during the war, while the rate of production of commodities increased more slowly than in normal times.

Apart from hospitals and some of the special services already discussed, most services received comparatively low priority for manpower purposes during the war and, since service industries tend to be labour intensive,¹ this usually curtailed their activities fairly effectively.

A number of service industries were declared essential, but

¹ That is, they require a comparatively large amount of

labour (and often a comparatively small amount of capital) to produce a given output.

generally they did not receive the degree of protection which was accorded to farming, coal mining, manufacturing and many other industries. There is no year to year record of the effects of manpower policy on the servicing industries, but an indication of their comparative lack of protection can be derived from records of the numbers withheld from service on occupational grounds.

In August 1945 there were still 21,600 Grade I men ¹ aged under 36 who were withheld from military service on occupational grounds. ² Only 7 ½ per cent of these men were in servicing industries, ³ but these same industries normally employed no less than a quarter of the entire male labour force.

The **National Service Department** listed wholesale and retail trade, land and estate and other agencies, finance and insurance among industries which were not declared essential. Of the non-essential industries the Department wrote: ⁴

‘These industries and services all play their part in the economy of the Dominion and in the life of our people, and have varying degrees of importance. It was not necessary, however, to grant them the protection of a declaration of essentiality, as in practically all cases the production or service could be curtailed if necessary without impeding the war effort. It was the aim of the Department throughout, in the administration of manpower controls in these industries and services to permit them, as far as possible, to maintain sufficient staff to continue to function economically and thus be in a position, after the war, to rehabilitate employees who had entered the Forces. The Department assisted these industries and services from time to time by arranging the release of home servicemen and home servicewomen from the Forces where such action was deemed to be warranted. Armed Forces Appeal Boards in dealing with appeals, also permitted the retention from

military services of limited numbers of Category “A” men holding key positions and a more substantial proportion of non-Category “A” men.⁵ The engagement of part-time labour, married women, and elderly persons was a prominent feature of the employment situation in these industries and services during the war period.’

In spite of shortages of fuel and power, and the tendency for most services to be curtailed during the war years, an increased

¹ Men medically fit for service.

² Parliamentary Paper H-11 A, Report of the [National Service Department](#), 1946, p. 126.

³ For purposes of this comparison, electricity supply and transport and communications are excluded from services.

⁴ H-11 A, 1946, p. 57.

⁵ Category ‘A’ men were those who satisfied the age, fitness and other requirements for overseas service. (Author's footnote.)

volume of goods was produced with the depleted civilian labour force.

Chart 75 shows changes in the volume of production of goods.

Chart 75

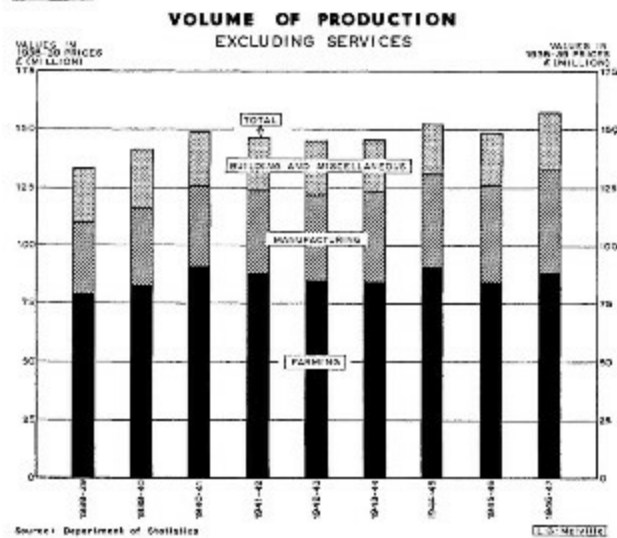


Chart 75

VOLUME OF PRODUCTION EXCLUDING SERVICES

Production changes in particular industries have been discussed in other chapters. Manufacturing—production, supported by an increasing labour force, rose progressively from year to year, but farm production fluctuated and, though tending to increase, was largely responsible for the occasional downturns in total production of goods. Building and other production also fluctuated.

Between 1938–39 and 1944–45 manufacturing output increased at an average rate of 4 3/4 per cent a year, farm production increased at 2 1/4 per cent a year, ¹ while building and other production declined. ² Production of all commodities increased 2 1/4 per cent a year on average.

At first glance these rates of growth look poor by comparison

¹ Dairy factories, freezing works and other industries processing farm products are included with farming, for purposes of this analysis. On pp. 177–80 they were left with manufacturing.

² The building and construction industry lost ground, in spite of wartime pressure for defence construction work. See also

with other periods. As indicated, ¹ the long-term rate of growth of volume of production of goods in New Zealand is close to 4 per cent a year. However, wartime production increases were achieved with a depleted civilian labour force; some types of materials and equipment were at times unprocurable, fuel and power tended to be in short supply, and many other services were restricted because of manpower scarcity. Taking these influences into consideration, the rate of increase in production was remarkably good.

¹ p. 424.

WAR ECONOMY

NEW SOURCES OF POWER

New Sources of Power

WARTIME shortages of fuel and power were by no means restricted to the transport industry. Production, especially in manufacturing industries, was for a time hampered in meeting the demands of war by inadequate supplies of coal and electric power.

The war was but part of an era when manufacturing was increasing in importance relatively in the New Zealand economy and when motive power for manufacturing industries was tending to move over more and more to electricity. Steam engines, as sources of motive power in factories, decreased from 51,000 horsepower in 1937–38 to 37,000 horsepower in 1947–48. They provided 20 per cent of all factory horsepower in 1937–38 but less than 9 per cent a decade later. Though probably accelerated by wartime shortages of coal, the decline in the importance of steam power was already well under way when the war started.

In factories, oil was also starting to take the place of coal as a fuel for engines; 5 per cent of factory horsepower came from oil engines in 1937–38 and 11 per cent in 1947–48.

The waning importance of the steam engine as a source of motive power in factories did not cause a proportionate fall in the demand for coal. Many industries required large quantities of heat. Here coal could usually retain its place against electricity, though it tended to find a more serious rival in oil.

In the decade up to 1947–48 electric motors, which by 1937–38 were providing 72 per cent of the power available in factories, moved up to 80 per cent. Meantime the volume of output of factories had increased by over half, aided by a much increased overall use of power and an

associated rise of 13 per cent in the volume of output per person engaged.

There is no statistical record of the electric power used by factories alone, but electric power used for all commercial and industrial purposes increased by two-thirds in the ten years. This very rapid rate of growth in the use of electric power seems to be necessary as part of the conditions for the steady increase in production per labour unit ¹ so often found in modern industry. The mobility, instant availability and general convenience of electric power have enabled manpower to be used more and more effectively.

Apart from wartime or depression interferences, the long-term trend for New Zealand has been, in general terms: labour force increasing 2 per cent a year, electric power usage increasing 8 per cent a year, production per head of labour increasing 2 per cent a year, and volume of production increasing 4 per cent a year. These growth rates are not independent of one another.

In the decade 1937–38 to 1947–48, the number of electric motors used on farms approximately doubled, tending to take over work done by internal combustion engines, which increased in number only 11 per cent in the decade. Agricultural tractors were also coming into their own. There were under 7000 in use in 1937; over 23,000 in 1947. Many tractors were supplied by the **United States of America** under Lend-Lease, and helped New Zealand farming to play its part in feeding **United States** forces in the **Pacific**.

This was the age of mechanisation of farming, with the horse being steadily replaced by the tractor. Better methods and better equipment were becoming generally available and, in spite of rising farm production, there was a slow but progressive decline in the numbers of men required to work on farms.

Meantime household demands for electric power were increasing by leaps and bounds. Households took nearly half of all power sold in 1939

and were increasing in relative importance as power users. Their demand for power had almost doubled by 1946. In households the extra convenience of electric power was increasing its popularity for lighting, cooking, and heating, while new gadgets using electric power were creating their own demand.

Wartime difficulties in obtaining sufficient coal to meet all the demands for it were discussed in

Chapter 15. It is probable that uncertainties in the supply of coal played some part in bringing about the movement towards electricity in factories and elsewhere. However, in the main, the movement was part of a longer term tendency for electric power to increase in relative importance.

¹ Production per labour unit is commonly called productivity. It is normally increased by better equipment, more power in the hands of each worker, and better methods of work. Productivity is sometimes measured per unit of capital used or per unit of some combination of labour and capital used.

WAR ECONOMY

COAL FOR INDUSTRY

Coal for Industry

Coal consumption at the outbreak of war was running at about 2,400,000 tons a year. It increased, by 1943, to rather more than 2,800,000 tons a year, at which level it was to remain until it declined in the early 1950s.

Coal used in factories ¹ increased from 540,000 tons in 1939 to 750,000 tons in 1945. A good deal of this extra coal was used for heating rather than for generation of steam power. As we have seen, ² horsepower of steam engines in factories decreased considerably over this same period. In 1939 nearly two-thirds of all coal used in factories was required for dairy factories, meat works, lime crushing and cement making. These industries increased their coal consumption 14 per cent over the war years. The diversity of new manufacturing industries which sprang up during the war brought new demands for all forms of power and, in spite of the tendency to swing to electricity and oil, the demand for coal for factories increased by 39 per cent between 1939 and 1945. In the same period electric power consumption by factories and commercial undertakings increased by 55 per cent.

The bulk of New Zealand's electric power was water generated, 77 per cent of the horsepower of the electric supply installations being of this type in 1937–38. Even here, coal-burning installations were tending to lose position relatively. The steam powered generators accounted for 18 per cent of the horsepower of all electric supply installations in 1937–38, but for only 10.5 per cent by 1947–48. In the latter year 96 per cent of electric power was generated in hydro-electric units.

¹ Excluding electricity and gas generation.

WAR ECONOMY

DOMESTIC COOKING AND HEATING

Domestic Cooking and Heating

For domestic use, electricity was tending to push aside gas and coal. Electric ranges for cooking were gaining in popularity at the expense of gas ranges; electric heaters were taking over from gas heaters and open fires. Nevertheless, gas production increased by a quarter between 1939 and 1945.

Use of coal in gasworks increased from 226,000 tons in 1939 to 300,000 tons in 1945. Gasworks were the main users of imported coal; they took 78,000 tons in 1939, but had to be content with smaller quantities in the later war years as coal imports declined. In 1944 they used 41,000 tons of imported coal and in 1945 only 800 tons. ³

Inadequacy of stocks held by gasworks, and irregularity in supplies of suitable coal from the **West Coast, led to shortages and interruptions in gas supplies in 1945.**

The increase of 25 per cent in gas production over the war years seems quite fast until it is compared with the 67 per cent increase in electricity generation. ¹ The slower rate of increase in production of gas was due partly to inadequacy of coal supplies and partly to the continuing tendency for electricity to take over from gas for domestic cooking and other purposes.

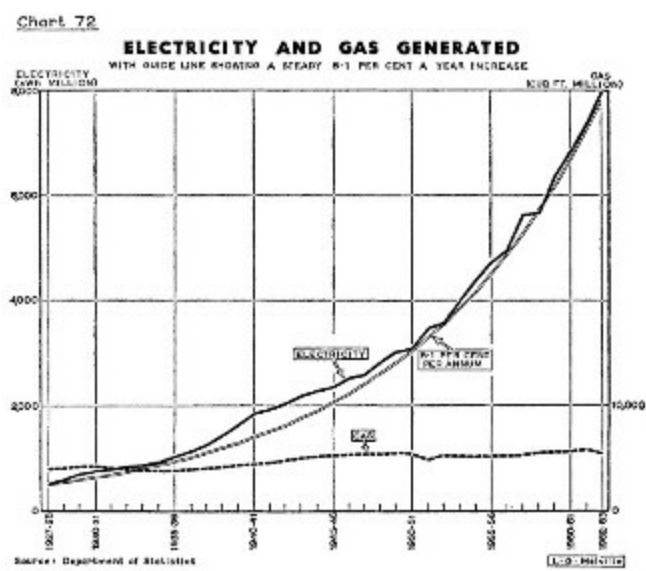


Chart 72
ELECTRICITY AND GAS GENERATED
WITH GUIDE LINE SHOWING A STEADY 8.1 PER CENT A YEAR INCREASE

³ Presumably taken from stocks. No imported coal arrived in 1944 or 1945. See also p. 410.

¹ As a further comparison, manufacturing output increased 36 per cent.

WAR ECONOMY

COAL SUPPLIES

Coal Supplies

The repeated shortages of coal for railways use and the restriction of less essential railway services were discussed in

Chapter 15. Because of its key position in the transport industry, and the extremely heavy extra wartime load it had to carry, the **Railways Department** needed a high priority for available coal. Nevertheless its coal supplies continued to be uncertain. After the war, it was to convert many of its locomotives to oil burners, but during the war the Department remained predominantly dependent on coal.

Coal used for ships bunkering decreased over the war years from 159,000 tons in 1939 to 118,000 tons in 1945. It was to continue to decrease after the war. There was an increasing tendency for ships to burn oil instead of coal.

Supplies of coal remaining for civilian and other purposes fluctuated around 1,000,000 tons from about 1934 right through until well after the war; this in spite of the fact that the population increased by nearly one-fifth between 1934 and 1948. There were recurring shortages of coal for domestic use, but electricity, because of its extra convenience, was steadily being substituted for coal for space heating, in spite of the fact that some authorities considered electricity to be less economical than coal for this purpose.

Irregularities in coal production, as well as the extra convenience of electricity for heating and power, encouraged the growing tendency for electricity to take over. There were shortages of electricity, too, in the war years, but supplies were more reliable than coal supplies. Up to 1945, coal production increased each year. However, it could not keep pace with the demand from railways, factories and gasworks, all of which were hampered by inadequate stocks and uncertain arrivals of coal.

WAR ECONOMY

ELECTRICITY ON THE UPSURGE

Electricity on the Upsurge

Electricity generation in New Zealand was by no means new in the pre-war decade. As far back as 1885 a hydro-electric power plant had been installed in Otago. ¹ Electric power development was essentially a government undertaking. In 1903, the Water Power Act had reserved to the Crown the sole right to use water for generating electricity.

Electricity was rapidly moving into new uses in the pre-war years and, in the five years up to 1939, electric power generation increased by 65 per cent. This rapid expansion in supply was not to satisfy demand for long. Demand increases of 9 per cent or more a year were usual and any hesitation for a few years in the expansion of generating plant would see demand ahead of supply.

Electric power shortages developed in the **North Island in the war years, a misfortune which hampered the war effort and should have been avoided. Efficient production requires, above all, adequate power in convenient form.**

Wartime shortages of electric power cannot be explained entirely in terms of an unexpected increase in demand, although domestic and manufacturing uses were expanding rapidly, and difficulties in getting adequate coal supplies tended to switch demand to other sources of heat and power. The real cause of the difficulty was that hydro-electric development had been neglected before the war. From 1936 to 1938 expenditure on hydro-electric development was far less than it had been at any time during the depression. Indeed, it was not until the war was well under way that depression expenditure was exceeded.

From 1930 to 1935, under the influence of the depression, power consumption in New Zealand had increased by only about 5 ½ per cent a

year. It was, no doubt, this comparatively slow rate of growth in consumption which influenced the very conservative estimates which were then made about future power requirements, and led to the curtailment of development.

From 1935 to 1941, however, the increase in consumption averaged over 12 per cent a year. With curtailed expenditure on hydro-electric development, demand soon overtook generating capacity.

¹ By the Phoenix Quartz Mining Company on the Shotover River. The first government hydro-electric station was at Lake Coleridge in 1915.

WAR ECONOMY

FAULTY PRE-WAR POWER ESTIMATES

Faulty Pre-war Power Estimates

The reduced pace of hydro-electric power development in the pre-war years was no doubt attributable initially to faulty judgment of the 1932 **National Expenditure Commission**, which counselled strenuous opposition to any move for the commencement of further works. ¹

However, not all the blame can be placed on the **National Expenditure Commission**. In its 1935–36 annual report, the **Electric Power Boards and Supply Authorities Association**, in estimating requirements up to 1943–44, said:

‘The position in the North and South Islands respectively in regard to available generating capacity, installed plant and maximum demand for 1943–44 is set out in attached figures. From these figures it appears that the necessity for developing an entirely new (hydro-electric) scheme is remote.’ ²

Power supplies seem to have been sufficient at the outbreak of war, but with inadequate provision for expansion. By 1940 there were signs of impending shortages in the **North Island**, and in the following year rationing was frequently under consideration.

¹ See also p. 47.

² See also *NZPD*, Vol. 273, p. 99.

In March 1941 a **Wellington** daily paper reported:

‘The unlikelihood of electricity being rationed during the coming winter was mentioned by the Minister of Public Works, Mr Armstrong,

during his visit to **Napier** when on his way to the **Wairoa**, **Gisborne**, and the **Cambridge** districts. He said the Minister of Mines, Mr Webb, was of the opinion that all the coal necessary for industrial and domestic purposes could be produced in New Zealand.

‘The rapid extension of secondary industries had created a demand for electric power that had never been anticipated, said Mr Armstrong. Only in years to come, when complete electrification of industry was accomplished, would the wisdom of the Government's decision to continue the Tuai ¹ scheme be appreciated.

‘Discussing Public Works policy generally, Mr Armstrong said that only works of national importance would be continued during the war. Manpower was the chief factor to be considered.’ ²

It is true that wartime requirements expanded manufacturing needs, but it is also true that hydro-electric expansion was not pushed forward fast enough in the pre-war years, especially when the possibility of war was apparent. ³ When the danger was finally realised, it was too late.

A good picture of the overbalancing of surplus into shortage of power was given after the war by the Hon. John Robertson in a debate in the Legislative Council. He said: ⁴

‘... We have made tremendous advances, but if we look at consumption since 1935 we find there has been an increase of 152 per cent. Why? Well, since 1935 the number of electric ranges has grown from thirty-nine thousand to one hundred and thirty-five thousand; the figures for water heaters are fiftythree thousand and one hundred and sixty thousand; milking machines with electricity as their motive power have increased from seventeen thousand to thirty-two thousand; and so it goes on. The total units generated have reached unprecedented heights, but that does not get rid of the fact that we are still up against a shortage. In the period 1938 to 1939 the demand for electric power jumped very appreciably, but it is fair to all parties to point out that at that time the number of generators that were in service to carry the

increased load were quite ample, and, at

¹ In 1939 a third generator of 20,000 kilowatt capacity was added to bring the capacity of the station to 52,000 kilowatts. Tuai was to be the control centre for the three stations of the Waikaremoana scheme, Kaitawa, Tuai and Piripaua. The Minister probably referred to the Tuai scheme in this broader sense. (Author's footnote.)

² *Dominion*, 31 March 1941.

³ See also p. 46.

⁴ *NZPD*, Vol. 273, p. 99, 27 June 1946.

the same time, more plant was on order for the years ahead, for it takes some four years to construct a generating station. However, with the outbreak of war it became impossible to get that plant into the country, and with the demand for power all the time going onwards and upwards the State Hydro-electric Department was driven to every possible shift in order to increase its generation.'

As could have been expected, it was difficult enough during the war years to provide new plant for normal expansion, let alone to catch up on neglected pre-war expansion and to provide for special war needs at the same time. The first warning of pending power shortages had come in 1936, when the rate of increase in power consumption stepped up. Much of the wartime difficulty arose from tardiness in heeding this warning. A war had been threatening, but generating capacity had not been pushed far enough ahead of power needs to cope with the interruptions in hydroelectric development which war was likely to bring.

Wartime difficulties in power development should not be underestimated. The only criticism is that they were not foreseen. A

recent writer ¹ said of the Cobb power station, ‘... Cobb did not come into operation until mid-1944, mainly owing to the shortage of men and materials during the war.’ Of Kaitawa he wrote, ‘Owing to delays in the delivery of machinery from overseas, due to the war, the Station did not commence operation until 1948’, and of ‘Tekapo, ‘Construction of the tunnel to convey water from the lake to the power station began in 1938 but was discontinued during the war and did not resume until 1946.’

¹ **N. M. Speer**, *The Electrical Supply Industry in New Zealand*.

WAR ECONOMY

EARLY RESTRAINTS ON THE USE OF POWER

Early Restraints on the Use of Power

The need for restraint in the use of electric power became apparent in 1940 in the **North Island**. Demand, at times of peak loads, threatened to exceed generating capacity. Demand, moreover, was increasing rapidly with no prospect of any adequate increase in generating capacity.

In March 1941 the Electricity Controller asked supply authorities in the **North Island** to regulate their loads so as to keep their weekly use of energy to not more than 4 per cent above 1940. In the meantime, restraint on consumers would be by persuasion rather than rationing, but the Controller made it clear that whether rationing would be necessary or not depended on the amount of rain.

‘... However, this could not be foretold. The balance of power required above that produced by hydro-stations would come from steam-operated plants at King's Wharf, **Auckland**, and Evans Bay, **Wellington**.

‘Big problems were presented in the operation of these plants, particularly when running to full capacity, said Mr Kissel. An undertaking had already been given that the Evans Bay plant would be supplied with its needs of coal. King's Wharf operated on **Waikato** or Southland slack coal. A request had been made for an increase in slack coal production from 40,000 to 180,000 tons yearly. This was a great increase for any industry to face.

‘Though the Coal Controller made valiant efforts last winter and was able to meet the demand, Mr Kissel was a little apprehensive that he might not be able to do so in the coming winter. However, instead of 180,000 tons as estimated 6 months ago it was now believed that 130,000 tons might be sufficient. The rate of increase in the demand for

electricity might still further drop. A 7½ per cent increase in the demand would mean that 127,000 tons would be required for King's Wharf. The Coal Controller, while giving no guarantee, said he could deliver this.' ¹

As a measure to save electric power, daylight saving, which normally concluded on the last Sunday in April, was extended throughout the winter, starting in 1941; and in May of this year the Electricity Controller arranged a radio campaign to persuade the public to economise in the use of power. By these means the supply authorities struggled through the 1941 winter without any serious breakdown.

In May 1942, following a spell of cold weather, the power situation in the **North Island** became serious, requirements being too high during the peak hours of 4 p.m. to 6 p.m., which took the brunt of the normal cooking load. This brought about the first statutory enactment against users, the Electricity Control Order 1942, which forbade the use of electric radiators and space heaters in business premises or places of amusement during these peak hours. ² To back up this measure the Factory Controller, on 24 June, issued an Order prohibiting the manufacture and sale of radiators and of practically all domestic electrical appliances. ³

A ministerial statement on 11 June 1942 ⁴ summed up the circumstances leading to these restrictions:

¹ Reported in *Evening Post*, 7 March 1941.

² The restrictions applied from Mondays to Fridays, in the **North Island** only.

³ The Electrical Appliances Control Notice, 1942.

⁴ *Evening Post*, 12 June 1942.

‘... In a joint statement issued last night the Minister of Supply (Mr Sullivan) and the Minister of Public Works (Mr Armstrong) said that the present position with regard to the supply of electricity from the Government system in the **North Island had become critical. Due to the colder weather and the shorter days, demand for electricity had suddenly increased, and the generating stations in the **North Island** were working to full capacity. In addition to the hydro-stations, the fuel stations, large and small, were fully loaded at peak times, which at this time of the year were between 4 p.m. and 6 p.m.**

“... It is also necessary that economy be practised in the use of electricity at all times,” added the Ministers. “A very large amount of oil is being used to generate electricity and this has to be imported, and this means the use of ships. ¹ Coal, which is required for industries and householder use is also being used at the rate of hundreds of tons a week. It is, therefore, incumbent on every user of electricity to avoid waste, and thereby help to avoid irksome rationing and interruptions in the supply of electricity, so assisting New Zealand's national economy under wartime conditions.”“

For the winter of 1943, prospects for electrical supply were somewhat improved by the installation of the first generating unit of 20,000 kilowatts at Piripaua in December 1942. ² Despite a number of difficulties it was decided to allow supply authorities an increase in allocation of 4 per cent on their 1942 usage. But demand moved inexorably upwards and, with all stations becoming overloaded, further restrictions were soon necessary.

On the occasion of a temporary breakdown of one of the generating units at the Arapuni Station, ³ the Minister of Works, Mr Semple, and the Minister of Supply and Munitions, Mr Sullivan, joined in saying, in June 1943: ‘The whole electrical generating system has been working under a severe strain, producing a very much higher level than the system could be expected to carry continuously. An appeal is made to everybody to economise in the consumption of electric power to the

utmost extent possible so as to avoid the only alternative, which is the complete stoppage of

¹ For example, the steam generating plant at Evans Bay used 26,000 tons of coal and 10,000 tons of oil in 1942. (Author's footnote.)

² A second unit was installed in 1943, bringing the station to its full capacity of 40,000 kilowatts.

³ Arapuni had six units at the outbreak of war. Two more were added to cope with increasing demand during the war. In these years Arapuni was generating over half the **North Island** power supply.

power in some districts during certain periods of the day....'



THE CONTROLLER OF SHIPBUILDING SPEAKS AT A LAUNCHING
Outstanding among the wartime economic controllers was Mr (later Sir) James Fletcher, Commissioner of Defence Construction and later Controller of Shipbuilding

THE CONTROLLER OF SHIPBUILDING SPEAKS AT A LAUNCHING

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KAURI FOR SHIPBUILDING

A coastal scow delivers a cargo of kauri and other New Zealand timber

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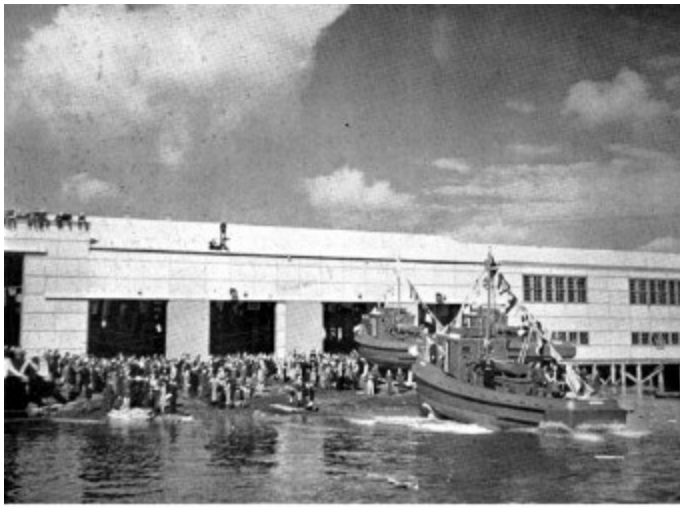


PREFABRICATION SPEEDS SHIPBUILDING

Prefabricated keels of tow-boats ready for transport to an Auckland shipyard

PREFABRICATION SPEEDS SHIPBUILDING

Prefabricated keels of tow-boats ready for transport to an [Auckland](#) shipyard



SHIPS FOR THE UNITED STATES FORCES
Launching New Zealand built tow-boats, Auckland, August 1943

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Launching New Zealand built tow-boats, Auckland, August 1943



PLUGGING THE MANPOWER GAPS
Many older and retired people returned to industry. An 83-year-old cutting metal for Army buckets

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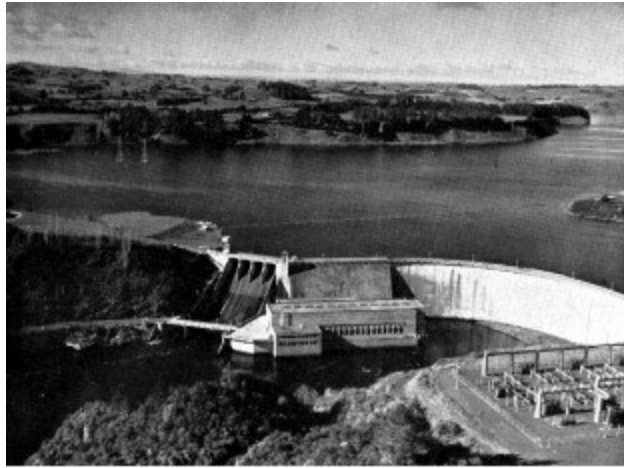


WOMEN IN MEN'S JOBS

Engineering industries made munitions and a variety of essential civilian goods which could not be imported

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Engineering industries made munitions and a variety of essential



WARTIME HYDRO-ELECTRIC DEVELOPMENT

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FUND-RAISING CAMPAIGNS
 £242 million was raised by loans in New Zealand for war purposes

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 £242 million was raised by loans in New Zealand for war purposes

Restrictions imposed in 1943 and 1944 included reduction of radio broadcasting hours, metering of water heaters, and restrictions on non-essential lighting in shop windows and under verandahs.

Power shortages became progressively worse over the war years and in due course threatened to restrict the productive capacity of industry.

Chart 73 shows the increase in use of electric power for various purposes from 1939 to 1946.

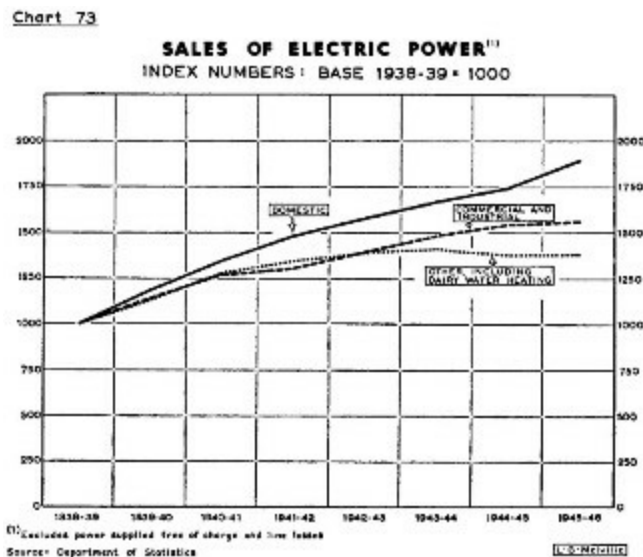


Chart 73
SALES OF ELECTRIC POWER
INDEX NUMBERS: BASE 1938-39 = 1000

WAR ECONOMY

POWER DIFFICULTIES FOR MANUFACTURERS

Power Difficulties for Manufacturers

As shortages of electric power became more serious, it was necessary to restrain the increasing demands for power for industry. This was a ticklish problem of control. The war effort required increasing production and the establishment of new industries. It would be stultified if producers were starved for power. From 1943 the Factory Controller worked with the Electricity Controller, giving advice on priorities for the supply of power to new industrial machinery. Power Boards were required by an Electricity Control Order ¹ to get approval before connecting electricity to plant extensions or to new equipment. The position became especially difficult in **Auckland**, where the faster rate of expansion of population and industry aggravated supply shortages. It became necessary to weigh up the need for each new product against the competing needs for the scarce power the new installation would consume.

Increasing power shortage led to a very restrictive application of the Electricity Control Order, and the position became so serious as to lead, in April 1945, to a direct conflict between the Factory Controller's policy of increasing essential production and the Electricity Controller's efforts to conserve power. The Factory Controller complained that 'Under existing conditions critical production is being hampered by the non-supply of power.'²

As a result of this clash, **War Cabinet** fixed an order of priority, with critical civilian production following immediately after New Zealand forces' requirements. However, the Factory Controller was still unable to get sufficient electric power and, on 26 June 1945, he asserted that 'power is not available for some very important and critical civilian production which **War Cabinet** has directed should be regarded as second priority.'

As a result of the Factory Controller's representations, a rather more liberal policy was adopted towards the supply of electric power for those industries which were concerned with 'critical civilian production'.

The centralised control over supply of power to factories ceased in November 1945, when the local supply authorities were authorised to issue permits for industrial installations at their own discretion. ³

Restriction of power to domestic users was to continue in varying degrees until 1959 in the **North Island and there would be restriction in the **South Island** from 1947 until 1957.**

¹ Amendment Order No. 1 of 22 November 1943 to the Electricity Control Order 1943 forbade Supply Authorities in the **North Island, subject to any special directions given by the Electricity Controller, to issue permits for new or extended electrical installations for a number of specified uses.**

² Factory Controller to Minister of Supply, 12 April 1945. Copy on Industries and Commerce file 54/11.

³ Amendment Order No. 1 of 7 November 1945 to the Electricity Control Order 1945.

WAR ECONOMY

BELATED HYDRO-ELECTRIC DEVELOPMENT

Belated Hydro-Electric Development

Deferred hydro-electric development showed its effects at a most awkward time. Some of the difficulties in extending and completing existing schemes have already been mentioned. The worsening supply position for electric power forced the Government to give priority to the development of new hydro-electric schemes during the war, when it was most difficult to find sufficient resources for even a fraction of normal development work.

In October 1943, the Government outlined a ten-year plan for electrical development, involving four new stations, to use almost the whole of the fall in the Waikato River from Lake Taupo to **Cambridge**. The four new stations were to be developed within the next seven or eight years. However, it was too much to hope that rapid development would be possible in wartime. Expenditure was stepped up after 1943, but not until 1952 would the addition of the giant Maraetai to the chain of **Waikato** stations enable many of the restrictions to be removed.

In the event, hydro-electric development was one of the few aspects of Government construction expenditure, apart from actual defence works, which showed a higher rate of expenditure in the war years than before the war. Even this high level of wartime expenditure was soon to appear moderate as the full impact of the accumulating demand for power made itself felt. What had appeared to be high expenditures in wartime were doubled, tripled, and quadrupled before generating capacity, in the late fifties, showed any sign of getting ahead of demand.

WAR ECONOMY

GOVERNMENT ADMINISTRATIVE AND OTHER SERVICES

Government Administrative and Other Services

The task of administering the war effort and bringing about the necessary diversion of resources away from civilian use fell almost entirely on state servants who were responsible for carrying out the Government's policy.

Special wartime control procedures, rationing, manpower direction, bulk purchasing arrangements on behalf of the United Kingdom Government, defence construction, supply and a host of other new functions were administered by government departments during the war.

The Government became very active in promoting new industries which could produce supplies for war or manufacture essential civilian goods previously imported. Much war production was arranged on a contract basis, but the Government often supplemented this by actual participation. For example, the **Department of Agriculture grew vegetables for the Services Vegetable Production Scheme and the railways workshops made munitions.**

Formidable volumes of administrative work were involved in the defence construction programme, the shipbuilding programme, and the making of munitions by industries normally engaged in civilian production.

The greatest part of the burden of administering the stabilisation scheme fell on public servants, who advised on financial policy and carried out price, wage and cost controls.

Special war taxation, war loans and war expenditure all placed an extra load on government departments.

The intensity of the war effort necessitated government

participation or influence in most economic activities, and comment on one or other government department is included in every chapter of this book.

In April 1939, 17,200 people were employed by the Government, apart from those in the **Railways Department** and the **Post and Telegraph Department**.¹ Under pressure of extra wartime responsibilities, the number rose to 30,600 by April 1945. Long hours were often worked, and in many departments the regular working week had been increased to 44 or 48 hours by the end of 1942.

Over these years there was a very marked change in the quality of staff employed in the public service. In spite of several years of quite rapid expansion before the war to cope with the Labour Government's public works, housing, and welfare programmes, the public service was, in 1939, still predominantly a staff of permanent officers who had been recruited as cadets in their teens.

In 1930 a fifth of the staff had been temporary employees, but the need for rapid recruitments to cope with increasing government functions after 1935 had raised the proportion of temporaries to over a third by 1939. A much more sweeping change was to come. After six years of war, temporaries would outnumber permanents and make up 56 per cent of the staff.

Recruitment for the armed forces created difficulties in public service staffing, as it did in many other activities. By April 1942 6000 were serving, and the number rose to a maximum of 7400 in May 1943, when it represented more than a quarter of the total staff.

Extra staff had to be found, to make good losses to the services and for the wartime expansion of government activities. Generally the policy was to make temporary appointments as replacements for men in the services. The intention was to release these temporaries at the end of the war, together with those who had been required for the special wartime agencies. However, with the continued expansion of state

activities, a fair proportion of them were retained. ²

¹ The staff in the latter two Departments were outside **Public Service Commission** control. **Railways Department** staffing was discussed in

Chapter 15. Post and Telegraph Department staffing is discussed later in this chapter.

² One of the problems facing the Public Service after the war was to find a satisfactory basis for absorbing into the permanent staff large numbers of temporary public servants who had been recruited during the war.

WAR ECONOMY

WOMEN IN THE PUBLIC SERVICE

Women in the Public Service

The temporary staff included large numbers of women, many of whom had sought wartime jobs in the public service. The numbers of women in the public service, excluding a few on the permanent staff, reached a maximum of over 7000 in 1944. Some 5000 were clerical workers, the majority engaged to fill wartime vacancies. Many of these women had never before been in regular employment, and fewer still had experience in the type of work required of them in the public service. Generally speaking, they adapted themselves well. The incidence of sickness and other absences from work was much greater among wartime appointees than among other women employed in the public service, but this was in part explained by the fact that their average age was comparatively high and many were married with considerable domestic responsibilities.

Wartime experience, combined with the changed general employment situation, was to have a profound effect on attitudes to the employment of women in the public service. In 1939, 5 per cent of the clerical workers were women; by 1947 the proportion of women was to be 25 per cent.

WAR ECONOMY

COMMUNICATIONS

Communications

In New Zealand almost all communications are the responsibility of the Government, and are administered by the **Post and Telegraph Department**. This Department also operates a Post Office Savings Bank and, because of its many branches, acts as agent for a variety of government transactions.

The **Post and Telegraph Department** lost some 6000 men to the armed forces, out of a total staff of 12,000. These losses were partly offset by the engagement of 4000 women for clerical work, telegram, parcel and letter delivery, driving and light manual work. In wartime the Department was called upon to provide communications facilities for New Zealand and **United States** military installations in New Zealand. Post offices also administered national savings accounts and handled a variety of other special war work, but there was a marked decline in some of the Department's normal activities. For example, the number of letters carried fell by 14 per cent from 1939 to 1945.

WAR ECONOMY

LOCAL AUTHORITY SERVICES

Local Authority Services

A general impression of the reduction in local authority activities during the war is given by the fall in numbers engaged. By March 1943, the numbers employed by the various local authorities had fallen to well under two-thirds of the March 1939 totals. Particularly hard hit were counties, which lost over half their staff in this four-year period. Boroughs lost over a third of theirs. Much of the county and borough staff had been required for road work, which tended to be deferred during the war.

Counties and boroughs were the most voracious users of government subsidies before the war and were, in consequence, most seriously affected by the Government's determination to divert a maximum of funds and manpower to the war effort. In 1938–39 local authorities received £2·4 million from employment promotion funds: £0·6 million of this went to counties and £1·4 million to boroughs. By 1943–44 only £110,000 was paid over to all local authorities, and, though counties and boroughs received the lion's share, their expenditures had to be severely pruned.

Commenting on these changes, a Local Government Committee wrote in 1944: ¹ 'The very large amount of these subsidies, particularly to territorial local authorities, is evident.... The falling off in recent years is due to war conditions. During this latter period, however, local authority capital works and much maintenance work have been at a standstill. The question of finance will emerge when the time arrives for recommencement both of capital and maintenance works.'

From another angle, this change in subsidy payments has already been discussed in

Chapter 5. As was noted there, men previously in subsidised employment were absorbed into the armed forces or into normal employment; and there was a certain amount of criticism from those who thought the process was too slow.

Counties were also very dependent on main highways funds from motor spirits taxation, of which they received well over 90 per cent. Payments were by way of subsidy, normally at the rate of £3 for each £1 spent by the local authority. Receipts from this source fell from £884,000 in 1939–40 to £399,000 in 1943–44.

For development work on back-country roads, grants had been made from the Public Works Fund. Here again curtailment was severe. £1.3 million was paid over in 1938–39, mostly to counties; only £128,000 in 1942–43.

Chart 74 shows changes in local authority employment.

Compared with counties and boroughs, most other local authorities were comparatively well off for staff during the war. Electric power boards, for example, had 86 per cent of their 1939 staff still with them in 1943, and 82 per cent in March 1944, which was their lowest point. Power boards, however, carried an increasing load as the demand for power increased and it became necessary to administer rationing schemes to consumers.

Urban transport boards also carried an increasing load, as petrol rationing restricted the use of the private motor car and forced more people to use public transport. Their staffs had been reduced by only 7 per cent at their lowest point, in 1942.

Harbour boards, by 1943, had just a little over three-quarters of their pre-war staffs. Some of the effects of this on the supervision of waterfront work were discussed in

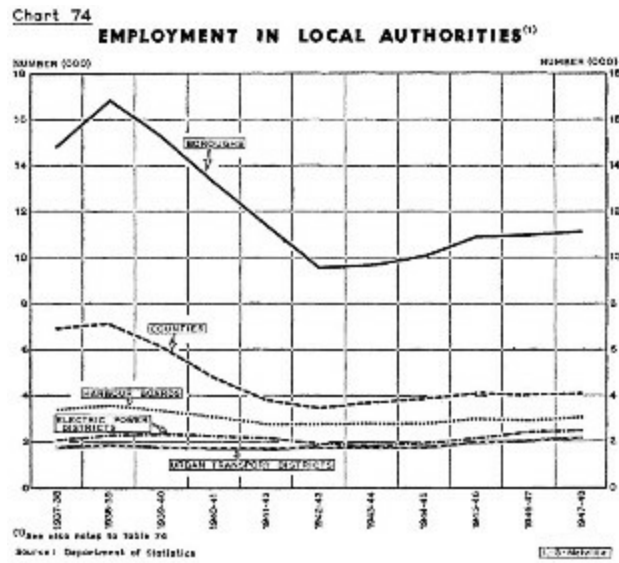


Chart 74
EMPLOYMENT IN LOCAL AUTHORITIES

¹ Parliamentary Paper I-15, Report of the Local Government Committee, p. 131.

WAR ECONOMY

LEVELS OF PRODUCTION

Levels of Production

In spite of exceptions, such as railway transport and electricity supply, the general tendency was for services to the public and to industry to be reduced during the war, while the rate of production of commodities increased more slowly than in normal times.

Apart from hospitals and some of the special services already discussed, most services received comparatively low priority for manpower purposes during the war and, since service industries tend to be labour intensive,¹ this usually curtailed their activities fairly effectively.

A number of service industries were declared essential, but

¹ That is, they require a comparatively large amount of labour (and often a comparatively small amount of capital) to produce a given output.

generally they did not receive the degree of protection which was accorded to farming, coal mining, manufacturing and many other industries. There is no year to year record of the effects of manpower policy on the servicing industries, but an indication of their comparative lack of protection can be derived from records of the numbers withheld from service on occupational grounds.

In August 1945 there were still 21,600 Grade I men¹ aged under 36 who were withheld from military service on occupational grounds.² Only 7 ½ per cent of these men were in servicing industries,³ but these same industries normally employed no less than a quarter of the entire male labour force.

The National Service Department listed wholesale and retail trade, land and estate and other agencies, finance and insurance among industries which were not declared essential. Of the non-essential industries the Department wrote: ⁴

‘These industries and services all play their part in the economy of the Dominion and in the life of our people, and have varying degrees of importance. It was not necessary, however, to grant them the protection of a declaration of essentiality, as in practically all cases the production or service could be curtailed if necessary without impeding the war effort. It was the aim of the Department throughout, in the administration of manpower controls in these industries and services to permit them, as far as possible, to maintain sufficient staff to continue to function economically and thus be in a position, after the war, to rehabilitate employees who had entered the Forces. The Department assisted these industries and services from time to time by arranging the release of home servicemen and home servicewomen from the Forces where such action was deemed to be warranted. Armed Forces Appeal Boards in dealing with appeals, also permitted the retention from military services of limited numbers of Category “A” men holding key positions and a more substantial proportion of non-Category “A” men. ⁵ The engagement of part-time labour, married women, and elderly persons was a prominent feature of the employment situation in these industries and services during the war period.’

In spite of shortages of fuel and power, and the tendency for most services to be curtailed during the war years, an increased

¹ Men medically fit for service.

² Parliamentary Paper H-11 A, Report of the National Service Department, 1946, p. 126.

³ For purposes of this comparison, electricity supply and transport and communications are excluded from services.

⁴ H-11 A, 1946, p. 57.

⁵ Category 'A' men were those who satisfied the age, fitness and other requirements for overseas service. (Author's footnote.)

volume of goods was produced with the depleted civilian labour force.

Chart 75 shows changes in the volume of production of goods.

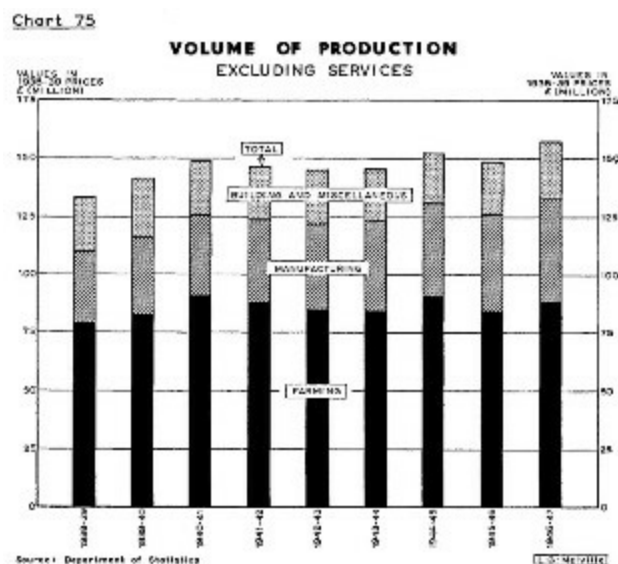


Chart 75
VOLUME OF PRODUCTION
EXCLUDING SERVICES

Production changes in particular industries have been discussed in other chapters. Manufacturing—production, supported by an increasing labour force, rose progressively from year to year, but farm production fluctuated and, though tending to increase, was largely responsible for the occasional downturns in total production of goods. Building and other production also fluctuated.

Between 1938–39 and 1944–45 manufacturing output increased at an average rate of $4 \frac{3}{4}$ per cent a year, farm production increased at $2 \frac{1}{4}$ per cent a year, ¹ while building and other production declined. ²

Production of all commodities increased 2 1/4 per cent a year on average.

At first glance these rates of growth look poor by comparison

¹ Dairy factories, freezing works and other industries processing farm products are included with farming, for purposes of this analysis. On pp. 177–80 they were left with manufacturing.

² The building and construction industry lost ground, in spite of wartime pressure for defence construction work. See also

with other periods. As indicated, ¹ the long-term rate of growth of volume of production of goods in New Zealand is close to 4 per cent a year. However, wartime production increases were achieved with a depleted civilian labour force; some types of materials and equipment were at times unprocurable, fuel and power tended to be in short supply, and many other services were restricted because of manpower scarcity. Taking these influences into consideration, the rate of increase in production was remarkably good.

¹ p. 424.

WAR ECONOMY

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WAR ECONOMY

POPULATION CHANGES

Population Changes

AT the outbreak of war 1,630,000 people were living in New Zealand, and their numbers were increasing by about 20,000 a year. The population growth rate had started to increase, after falling very low in the depression and the immediately following years. However, by 1939 it had reached only 12 per thousand of the existing population, which was still slow compared with the long-term New Zealand average of over twenty per thousand.

Maoris now numbered 90,000. Since 1921 they had increased faster than the rest of the population. ¹

In the period from the 1926 population census to the 1936 census the annual rate of population increase in New Zealand had been less than 11 per thousand. This was the lowest increase rate for any intercensal period in the history of New Zealand and was largely attributable to two effects of the depression of the thirties. Delayed marriages had pulled down the birth rate, and there had been a net loss to the population through migration.

These depression influences were to affect the population age structure significantly for a very long time. The low birth rates of the years around 1935, leading to a relatively small contingent of children in the population during the war years, took some of the strain off the education system, and to this extent made wartime burdens easier to bear. In post-war years these children were to become a relatively small contingent entering the labour force, and were to have a quite different effect. By slowing up the rate of growth of the labour force compared with the population, they would increase the relative burden of dependent population on the labour force.

Well into the 1960s, and probably for the rest of the twentieth century, the low birth rates of the middle thirties would remain the greatest single influence on the population age structure.

¹ According to census records the Maori population suffered a period of almost unbroken decline from 1858 to 1896. Warfare amongst the tribes and with the European settlers, and the susceptibility of the Maori to epidemic and other diseases introduced with the settlers, contributed to the decline. After 1896 the Maori population increased continuously. In 1921 its rate of growth per thousand outstripped that of the rest of the population and by the 1960s was to be nearly twice as fast.

WAR ECONOMY

WARTIME INFLUENCES ON POPULATION GROWTH

Wartime Influences on Population Growth

The aftermath of depression had led to a net loss through migration in each of the years 1931–32 to 1936–37. The year 1938–39 was only the second time in over a decade when there had been a net annual inflow near the long-term New Zealand average of between 4000 and 5000 a year. The net inflow, apart from troop movements, was just over 6000 in 1939–40, but war conditions then had their effect, and the net increase due to migration averaged less than 400 a year for the following four years. It was not to reach 5000 again until 1947–48.

Marriage rates were naturally affected by war conditions. Straitened circumstances had reduced them to as low as 6·8 per thousand of population in the two depression years, 1931 and 1932. Thereafter they had shown a steady rate of increase right through to 1938. In 1939 and 1940, wartime influences pushed up marriage rates to record levels of over 11 per thousand. Thereafter, with men serving overseas in increasing numbers, the marriage rate fell sharply to 8·7 per thousand in 1941 and then declined steadily to 7·5 per thousand in 1943. However, marriage rates did not fall as low as they had done in the depression years 1931, 1932 and 1933.

With the return of men from overseas, the marriage rate again stepped up, until it reached an all-time record of over 12 per thousand in 1946.

Birth rates, though they had been increasing, were still low up to the outbreak of war. For 1939 the birth rate was 19 per thousand of population, but it accelerated in the early war years, to reach nearly 23 per thousand for 1941. Then the absence of men on overseas service had its effect and the rate declined until 1943. All this, however, occurred during a period when the trend in birth rates was upward, and it is

interesting to note that, with recovery after 1943, the rate for the year 1945 reached over 23 per thousand, at which stage it was at its highest level for any year since 1921.

Chart 76 shows changes in marriage rates and birth rates.

The wartime setback to the recovery in the birth rate was less than might have been expected. It was war casualties and a reduced migration inflow which slowed down population growth; 11,625 men made the supreme sacrifice; the migration inflow was over 4000 a year below normal. The check occurred mainly in the labour force. Those killed on active service were fit men of working age. They would still have been in the labour force after the war. ¹ Migration usually contains a high proportion of males of working age. The combined effect of war casualties and lower migration was to reduce the size of the labour force relative to the population, and this may well have been one of the reasons why the labour shortage, which developed in the war years, continued into the post-war decade. By the 1950s, the growth of the labour force was to receive a further check when the inflow of younger workers was reduced as an aftermath of the low birth rates around 1935.

Chart 76

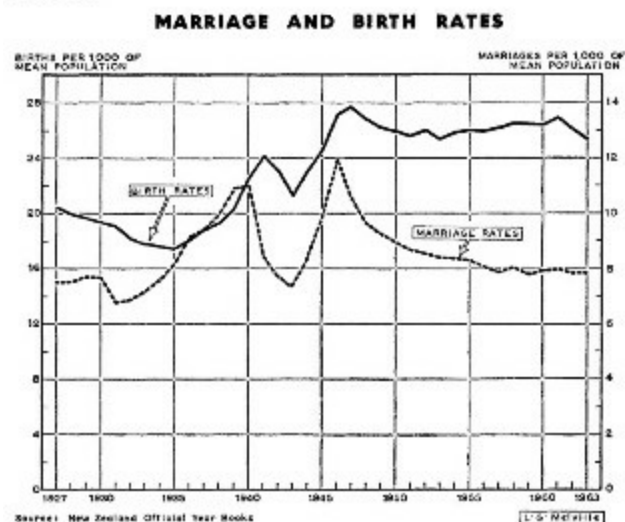


Chart 76

MARRIAGE AND BIRTH RATES

The numbers of New Zealanders actually living in New Zealand

during the war were reduced by departures of servicemen overseas, and falls were recorded in 1940 and 1941, with very large increases in 1945 and 1946 when servicemen returned. There would have been quite a large increase in 1942, also, had arrivals of United States servicemen been included in New Zealand population records.

By December 1946, when most men serving overseas had returned, the population reached 1,780,000. The increase over the preceding eight years had been 160,000, an average of 20,000 a year. This was equivalent to an annual growth rate of 12 per thousand of population; lower than for any similar period except for the depression of the 1930s, and well below the long-term average of over twenty per thousand.

¹ 17,000 were wounded. See also [pp. 540–1](#) where effects on the post-war labour force are discussed more fully.

WAR ECONOMY

EDUCATION

Education

The very low birth rates centred around 1935 meant that there was a smaller contingent of primary school children to be educated during the war years, and so relieved the strain on one portion of the economy. Except for the depression years 1932 to 1935, when the five-year-olds had not been admitted, ¹ the numbers at public primary schools in the war years 1939 to 1943 were the lowest since 1920. ² There were increases in 1944 and 1945, but the number in the latter year was still lower than the average attendance in the decade before the war.

The numbers of secondary school pupils fell in 1940 and 1941, but then increased steadily.

Soon after the outbreak of war, single men teachers began enlisting in the Services. In the early stages, most were released for armed service, but appeals were made for postponement of the calling up of some of the men in district high schools. By 1941 a high proportion of male teachers was on active service, and many schools were feeling the strain of depleted staffs. Teaching was declared an essential industry in October 1942, but in the following year it was estimated that 70 per cent of male primary teachers and 36 per cent of male post-primary teachers were on active service. ³ Many retired and married teachers returned to help out, but considerable staffing difficulties remained.

When military service became compulsory, no blanket provisions were made to protect university students. However, in the interests of the war effort, some students taking courses in agriculture, dentistry, engineering, medicine, mining and science ⁴ were temporarily exempted from military service to enable them to continue their studies. All other students had to fulfil their military obligations in the ordinary way. The result was a progressive decline in the number

¹ In New Zealand, education is compulsory from the age of 7, but children are permitted to attend from the age of 5 and most do. Except in private schools, primary and post-primary education is free.

² Over 70 per cent of all scholars and students were in public primary schools.

³ Parliamentary Paper E-1, Report of the Minister of Education, 1943, p. 1.

⁴ Especially those taking mathematics and physics.

of male students at universities. The position was reversed from 1943 onwards, when returned servicemen began to flow into the colleges; a flow which, after 1945, became a flood.

A certain amount of experimental war work was done in universities, especially in chemistry, engineering and physics departments. For example, development work for special types of radar equipment was undertaken in Canterbury University College, in conjunction with the **Department of Scientific and Industrial Research**.

Technical colleges also assisted with war work, and lent equipment for military training and maintenance work.

When the manpower shortage became most difficult, university vacations were altered to enable students to assist more effectively with harvesting and other seasonal work. Subject to suitable precautions, a limited number of post-primary school children who volunteered were made available in December and February for harvesting and other seasonal work. The services of male teachers were also used in the vacations to relieve labour shortages in seasonal work. Those who did not make arrangements to work, or to supervise the welfare of boys placed on farms, were liable to be directed (if single or married without

children) to freezing works, wool stores and canneries. ¹

¹ School holidays in New Zealand normally extend from mid-December to the beginning of February, this being the most popular holiday period. University examinations are in October and November, with vacations then extending to the beginning of March. See also footnote on p. 487 regarding seasonal peaks.

WAR ECONOMY

THE WORKER

The Worker

The Labour Party had come into power, in December 1935, ‘pledged to restore salaries and wages to pre-depression levels, to provide employment for everyone at full wages and to shorten the hours and improve working conditions in shops and offices and on the farms, as well as in factories’. ² **Some of the steps taken in this direction before the war have been outlined in**

Chapter 1.

One of the very early measures, on the outbreak of war, provided for the suspension or adjustment of labour legislation in the interests of a maximum war effort. Regulations made on 14 September 1939 to give wide powers to the Minister of Labour were superseded in June 1940 by even more sweeping regulations ³ which included the following:

‘If it appears to be necessary or expedient to do so for securing the public safety, the defence of New Zealand, or the efficient

² **J. B. Condliffe**, *The Welfare State in New Zealand*, p. 67.

³ The Labour Legislation Emergency Regulations (1939/167) were superseded by the Labour Legislation Emergency Regulations (1940/123). Both were made under the Emergency Regulations Act 1939.

prosecution of any war in which His Majesty may be engaged, or for maintaining supplies and services essential to the life of the community, the Minister by Order in the Gazette may suspend, so far as they relate to conditions of employment, the provisions of any Act or of any Regulations or Orders under any Act or of any Award or Industrial Agreement under the Industrial Conciliation and Arbitration Act of 1925, or of any agreement under the Labour Disputes Act 1913, or of any voluntary agreement, and the Minister by the same or any subsequent Order may prescribe conditions of employment in lieu thereof.’

To administer the regulations, the Minister had the assistance of an **Industrial Emergency Council**, and, by April 1942, eighty-one Variation Orders had been issued. To give a few examples:

- (Provision was made for shift work.
a)
- (Ordinary working hours were extended in some industries.

b)

(**Additional overtime was authorised in certain industries.**

c)

(**Restrictions on the employment of women were relaxed in some
d) industries.**

(**Restrictions on the employment of young persons on dairy farms
e) were relaxed.**

**The considerable reduction in unemployment by 1939 was
mentioned in**

Chapter 1. There were even shortages of some types of skilled labour. ¹
These changes became quite insignificant by comparison with the complete change in the labour market over the first three years of war, culminating in the severe general shortage of manpower which is discussed in

Longer working hours and more stringent working conditions had to be accepted. Some of this extra time and effort was rewarded, and rewarded generously. Some of it was given willingly without any extra compensation. The great bulk of the labour force regarded the extra effort as part of its service towards the common cause, but accepted extra pay for extra hours worked, including the penal rates which, in most industries, became payable after forty hours. ²

In the exceptional cases, extra time and effort was given grudgingly, with insistence on every scrap of possible extra reward. The depleted labour force and the extra work to be done favoured groups of workers who drove a hard bargain. The rapacity of some

¹ See also p. 220.

² To summarise the position in the first two years of war, the 40-hour week was general but not universal; for example, overtime was payable after 44 hours in shops. The standard overtime rate was 1½ times the ordinary rate. Under many awards, double time was payable for overtime in excess of four hours (in some cases three hours) on any day. Generally speaking, work done on statutory whole holidays was paid for at treble time, on Sundays or other holidays at double time, and on half holidays at time and a half.

groups was matched only by the rapacity of some contractors and employers. ¹ But most workers, most contractors, and most employers, played their part willingly in the war effort for reasonable reward.



FREE FRUIT IN SCHOOLS

Britain did not consider fruit imports essential during wartime. Special Government distribution arrangements kept the industry reasonably intact

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COLLIER LEAVING WESTPORT

Difficult West Coast harbours added to uncertainties in the coal supply

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OPEN-CAST COAL MINING

Large-scale development of open-cast mining came fairly late in the war

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WARTIME RACING

Trentham, March 1943. Servicemen and civilians queue together at the pay-out windows

WARTIME RACING

Trentham, March 1943. Servicemen and civilians queue together at the pay-out windows



FOOD RATIONING

Clipping ration coupons in a restaurant

FOOD RATIONING

Clipping ration coupons in a restaurant



COAL SHORTAGES AFFECT THE HOUSEWIFE

A primus stove in use on one of the occasions when gas supplies had to be stopped because of shortage of suitable coal

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MANPOWER SHORTAGE IN TRANSPORT
Women tramway employees — Wellington, 1944

MANPOWER SHORTAGE IN TRANSPORT
Women tramway employees — Wellington, 1944



NORTH ISLAND MAIN TRUNK
The railways carried a greatly increased wartime load

NORTH ISLAND MAIN TRUNK
The railways carried a greatly increased wartime load

Chapter 13 and pp. 398 and 477. There are other examples in this volume, and in War History Branch narratives, such as No. 58, Marine Department.

WAR ECONOMY

ATTITUDES TO CONSCRIPTION

Attitudes to Conscription

Not surprisingly, the resistance in the early stages of the war to any form of conscription of manpower was centred in the trade union movement. Among the workers was a considerable proportion of the fit men of military age. They would be most affected by conscription.

By the time the disasters in **France**, in May 1940, had brought to a head a strong public feeling that all resources of the country should be mobilised in the interests of New Zealand's war effort, the **Labour Party** was becoming aware that a strict application of its pre-war policy of conscription of wealth before manpower was not going to prove a very practical proposition. A similar change was taking place inside the trade union movement.

On 23 May, two thousand people attended a public meeting in **Auckland** to 'urge that the Government should immediately mobilize all New Zealand's resources, if necessary by compulsion, to defend the Dominion and help in winning the war'.² Manpower was the resource which most speakers at the meeting seem to have had in mind for immediate mobilisation, although there was a section of the public which spoke rather vaguely of the conscription of wealth as well as men.

On 30 May the Labour newspaper, the *Standard*, reported:

'In view of the sudden emergence of crisis conditions of a magnitude and an acuteness never before imagined, emergency conferences of the New Zealand **Labour Party** and the New Zealand **Federation of Labour** will be held at the week-end.

'With the same full representation as for their ordinary annual conferences, these two bodies will define their attitudes to and discuss co-operation in the emergency measures that are being

submitted to Parliament this week by the Government.

‘Conscription, in all the implications of the term, will doubtless be the subject uppermost in the minds of all delegates. Historically, both the political **Labour Party** and the trade union movement have been against conscription of human life for the business of war.

‘That objection has derived largely from the fact that, during past wars, governments that were in power were of a reactionary, capitalist nature and freely allowed money-power to batten off the misery of mankind while sending the workers to sacrifice their lives on the battlefields.

‘In view of the world-shattering threat of **Hitler's** total warfare and of the fact that the present **New Zealand Government** is determined that conscription of finance and productive institutions shall accompany, if not precede, any compulsory utilisation of manpower, there undoubtedly exists a strong feeling that the historical attitude of the working-class movement needs shaping to the special circumstances of today.’

A bill introduced in the House of Representatives on 30 May gave power to require persons to place themselves, their services, and their property at the disposal of the State. Conscription of men for the armed forces became effective in October 1940, but conscription of men for industrial purposes did not follow until January 1942, after **Japan** had entered the war. ¹

² *Dominion*, 24 May 1940.

¹ See also

WAR ECONOMY

CONSCRIPTION FOR INDUSTRY 2

Conscription for Industry ²

From the beginning of 1942, the workers' freedom to move from job to job and to bargain for conditions of employment were more and more restricted. In industries which had been declared essential, restrictions were placed also on the rights of employers. There was increasing use of the new power to direct workers to essential industries, and, in most cases, permission of a District Manpower Officer was required before any person could leave an essential industry or be dismissed from it.

In some of the key industries, where labour problems were particularly difficult, special arrangements were usually made. For example, in the transport field, the Waterfront Control Commission Emergency Regulations 1940 provided for a Waterfront Control Commission with very extensive powers, including the employment of labour, and the fixing of terms and conditions of employment and rates of remuneration.

A total of 176,000 direction orders was issued: 138,000 to men and 38,000 to women. ³ Directed workers lost their freedom to move out of an essential industry, in much the same way as freedom was lost by their counterparts in the armed services. There is no doubt that a good number of cases of hardship arose out of these direction orders, but the Government took what action it could to make the system operate as fairly as possible. Workers directed to essential industries were restrained from seeking more remunerative employment. Because they would suffer if there were periods when work was intermittent, steps were taken to protect their rates of pay. In September 1942 ¹ the Minister of Labour was given power to fix minimum weekly wages, which were to apply provided the worker was available for work in the week concerned. The minimum would apply in cases where there was no award, but

another important effect was to protect the worker in an essential industry against loss of pay where there were reductions in the length of the working week, except where 'he was absent from work on account of sickness or on account of any circumstances within his own control.' The minimum rates were fixed in October 1942 at £5 10s. per week for men, £2 17s. 6d. for women, and £1 15s. for juniors. The order applied with suitable safeguards to all essential undertakings.

Though it was avoided as much as possible, workers had sometimes to be transferred into lower paid jobs in order to staff an essential industry. The principle was accepted that the loss of earnings should not fall on the individual worker concerned, and financial assistance was usually given by the Government.

Direction of workers into industries which were not of their own choice naturally led some to hang back. It was not uncommon to find a number of workers absent from work, especially following a holiday period. The term 'absenteeism' was applied to this type of slackness and a good deal of public feeling was aroused against it. There is no doubt that some workers did indulge in abuses of this sort, but it is equally true that some critics applied the term 'absenteeism' to any absence from work, no matter what its cause, and became quite unreasonable in their outlook. Take for example the following extract from a leading article in a [Wellington](#) daily: ²

'... In May of last year when a special emergency regulation was introduced in an attempt to cope with the evil, the Minister of National Service (Mr Semple) issued an explanation of the measure, which rather than emphasising an intention of the Government to eradicate absenteeism was almost apologetic in tone. "It was not intended," he said, "to penalise the loyal and willing worker who might perhaps have an isolated absence. The penal clauses were designed to deal with the deliberate defaulter and the person who was habitually or persistently late for work." The question of distinguishing between the deliberate and unintentional cases might well have been left to the Courts. By introducing such

distinctions when speaking of the Government's intentions the Minister displayed a weakness (and left a loophole) which, no doubt, was appreciated by the slacker group....'

The leading article goes on to mention that, after the New Year, various manufacturing concerns 'reported that absenteeism ranged from 26 per cent to 80 per cent of the total of their hands.' Here it should be mentioned that early January is traditionally a holiday period in New Zealand, and, for many single workers directed into new localities, this was their only opportunity to visit their homes. Not until August 1944 did workers in general become entitled to a paid annual holiday of two weeks.

Some employees took all the latitude they could, but some employers were equally unreasonable in refusing to give leave of absence. Most workers complied gracefully with direction orders and worked well; and were treated considerately by their employers.

² Some aspects of direction of labour are dealt with more fully in

18.

³ Up to 31 March 1946.

¹ By an amendment to the National Service Emergency Regulations 1940.

² *Dominion*, 29 April 1943.

WAR ECONOMY

THE MAORI WAR EFFORT

The Maori War Effort

Recruitment amongst the Maori people for all branches of the armed forces remained on a voluntary basis throughout the war, ¹ but many thousands of Maoris enlisted, ² and Maoris accepted direction into essential industries.

The Maoris set up their own organisation to encourage a maximum war effort from their own people. A March 1943 statement in the House of Representatives by Mr P. K. Paikea ³ summarised its activities: ⁴

‘... When the **Maori War Effort Organisation** was formed, it was decided that tribal committees should be set up throughout New Zealand, the functions of those committees being to stimulate recruiting among their own immediate tribes and to stimulate production ..., and to direct and control manpower in order to assist essential industries. At present there are 121 tribal committees in the Northern Maori Electorate, 135 in the Western Maori Electorate, 102 in the Eastern Maori Electorate, and 23 in the Southern Maori Electorate—a total of 381. I desire to give an indication of their activities. They have put into production, for purposes other than their own immediate needs, 4,933 acres of land, and it is estimated that, on a conservative basis, the land will yield 126,700 bushels of maize, 475 bushels of beans, 3,403 tons of kumaras, 4,992 tons of potatoes, 206 tons of mixed

¹ Parliamentary Paper H-11 A, Report of the **National Service Department**, 1946, p. 17.

² See for example J. F. Cody, *28 (Maori) Battalion*.

³ Member of the Executive Council representing the Native Race.

⁴ NZPD, Vol. 262, p. 353.

vegetables, 440 tons of pumpkins, and 5,400 pecks of peas. In addition the Maori people have collected approximately 20,000 lb of dried agar seaweed. Since Japan entered the war, this seaweed has been much in demand.

‘... Now I wish to deal with Maori manpower. Under the **Maori War Effort Organisation**, we have enlisted 5,178 men for overseas service, 2,088 home service, and 10,229 for the **Home Guard**, which gives a total of 17,495 enlistments in the armed forces. In addition, there is a total of 11,550 now working in essential industries, making a grand total taking part in the defence Forces and in essential industries of 29,043.’²

A National Service Department statement indicates the relationship between the Department and the **Maori War Effort Organisation**:¹

‘The valour of members of the **Maori Battalion** and Maori members of the Air Force and Navy is widely known. On the industrial front, also, they have contributed much to the achievements of New Zealand's war effort. Maori workers have assisted materially in the manning of seasonal and heavy industries throughout the war period, particularly in the high-priority industries of shearing and meat-freezing. They have been conspicuous also in sawmilling, constructional activities, and defence works. Maori men and women have also played their part in urban industries. When the **National Service Department** commenced its wartime redistribution of the industrial manpower of the Dominion it sought and readily obtained the cooperation of the **Maori War Effort Organisation**. Special Maori Sections of the National Service offices were established in the main centres of

Maori population, and these sections (working in close contact with the tribal committees and with Maori Utilization Committees) were able to secure the willing services of Maori workers in many critically short-staffed industries throughout New Zealand. Maori workers were made subject to manpower direction and control to the same extent as others, and it is worthy of note that virtually all directions issued by District Manpower Officers (who acted in close consultation with the tribal committees and Maori Utilization Committees) were accepted without appeal. The total number of Maoris employed in essential undertakings at 1st April, 1945, is estimated to have been 15,000. Some 10,000 direction orders had then been issued to Maoris.'

There are very few separate references to the Maori people in this volume. Similarly, there are very few separate references to people of European stock. The reason for this is that nearly all

² Sic. The correct total is 29,045.

¹ H-11 A, Report of the [National Service Department](#), 1946, pp. 62-3.

of the statements made refer to New Zealanders, without distinction as to race. The people, irrespective of race, contributed to the war effort, and only where some special arrangement was made for a particular section of the population has it been necessary to make a separate reference.

WAR ECONOMY

ACCOMMODATION FOR DIRECTED WORKERS

Accommodation for Directed Workers

When direction of a worker involved a change in location, there was often difficulty in finding suitable living accommodation, and in some areas the Government had to meet the situation by providing hostels. Towards the middle of 1942 a number of the women workers directed to essential industry in the **Wellington** area were unable to find lodgings. The **National Service Department** wrote: ¹

‘Particular difficulty was encountered during 1942 and 1943 in directing female workers to employment in munitions and other essential industries, particularly in the Hutt Valley. Shortage of accommodation in this area was acute, and the Department found it necessary to establish several hostels for workers in essential industries. The first of these was constructed at Woburn, **Lower Hutt**, by arrangement with the Housing Department in 1943, and was designed to accommodate some 360 girls who, for the most part, comprised girls directed to munitions employment in **Petone**.’

Camps, which came to be known as Defence Workers' Camps, were provided for men in the **Wellington** district. The first was constructed to meet accommodation problems when men were brought into **Wellington** for the urgent repair of damage caused by earthquake in June 1942. Camps to accommodate 120 men were erected at **Rongotai**, Wakefield Park, and on the Basin Reserve, and were quite well run, except that there was some laxity in collecting the value of board from the men or their employers. ²

The earthquake damage work was mainly chimney repairs. As this work eased off, men were drafted to defence construction in and around **Wellington**. Several additional workers' camps were erected in **Wellington** and in the Hutt Valley, and there were soon nearly a dozen

camps in the **Wellington** area, providing accommodation in all for about 800 men. These camps remained in operation to meet the peak of defence construction work, but went out of use as this work tapered off. By the middle of 1944 only three camps remained, catering for some 460 men. In the later war years, other war workers were admitted to the camps, as well as technical

¹ Parliamentary Paper H-11 A, Report of the **National Service Department**, 1945, p. 42.

² Official War History of the Public Works Department, Vol. IV, p. 797.

trainees with the **Rehabilitation Department**. Camps were also set up in **Auckland**, chiefly to accommodate men directed to employment in freezing works.

There was some criticism of the management of hostels and camps. In particular, there were complaints about delays in providing equipment and essential facilities in some of the women's hostels. But the hostels and camps provided a reasonable standard of accommodation, and played a most important part in facilitating the direction of labour to localities where it was most urgently needed.

After the war, the **National Service Department** became the **National Employment Service**, and retained a number of camps for its more general peacetime work of assisting towards full employment. In its 1946 annual report, ¹ it listed the following camps as in operation at 31 March:

	<i>Capacity</i>
Auckland district –	
Waikaraka Park Camps	220
Avondale Camp	220
Wellington district –	

Naenae Camp, Lower Hutt	300
Hataitai Camp, Wellington	220
Woburn Hostel, Lower Hutt	264
Orient Hostel, Wellington	80
Public Service Hostel, Wellington	98

¹ **Parliamentary Paper H-11 A, p. 66.**

WAR ECONOMY

HOURS OF WORK

Hours of Work

Well before the war, efforts had been made to reduce hours of work in industry and, in 1936, the newly elected Labour Government had reduced hours generally from about 48 to 40 hours a week. These were the hours for which ordinary rates were payable. There were also restrictions, in the interests of the health of the workers, on the number of overtime hours in various industries, particularly for women and boys.

²

As the strain on manpower built up, there was naturally a good deal of pressure for the extension of working hours to meet war conditions. The **Labour Department** was authorised to extend overtime permissible in factories handling war orders, provided the usual safeguards were exercised.

For more sweeping revisions of hours, the Labour Legislation Emergency Regulations 1940 ³ made the Minister of Labour the sole judge of what modifications to working hours were necessary to ensure optimum production and to maintain the services. In

² For example, in factories the limit was 120 hours of overtime a year for women and boys.

³ See p. 447.

practice, the Minister had the advice of an **Industrial Emergency Council** composed of equal numbers of members representing employers and workers. The Council set up an **Hours Committee** which considered applications by industries for longer working hours. The committee would conduct a formal hearing and make a recommendation either to

the Minister direct or to him through the full Council. This recommendation usually became the basis of a Labour Legislation Suspension or Modification Order.

With the increasing scarcity of labour, considerable overtime was worked. In factories overtime increased from under 4 million hours in 1938–39 to over 17 million hours at the most difficult time in 1943–44.

From time to time further attempts were made to increase the regular hours of work in industry in order to make better use of scarce labour. Quite drastic steps were actually taken in some key industries. For example, we have noted an increase in each worker's hours to 54 per week, for a short time, on defence construction work ¹ and an increase in the weekly hours for working ships from 68 to 140. ²

These extensions of hours, however, in general involved payment of overtime to workers at rates which were 1½ times, double, or treble the ordinary rates.

At the time of **Japan's** entry into the war, two orders of general application were issued, as a result of recommendations from the **Industrial Emergency Council**. ³ These provisions eliminated the treble-time rates which had been a common cause of complaint and had hindered the working of extended hours. Time worked on holidays was now to be paid for at double time, and the employer was given the option of substituting some other day for the holiday. ⁴

Payment of overtime at penal rates still added to the cost of production and hindered the Government's stabilisation policy. The extra costs tended to make employers reluctant to extend hours. During the most critical stages of the war in the **Pacific**, there was quite a widespread demand for the extension of hours at ordinary rates of pay. The Director of National Service, in April 1942, advocated a small increase in standard hours at normal rates, but this was part of a sweeping plan for full mobilisation when the Japanese threat looked blackest. ⁵ The Government was reluctant to take a backward step in its

¹ p. 229.

² With shift work. See also p. 399.

³ The Holidays Labour Legislation Modification Order 1941 and the Overtime and Holidays Labour Legislation Suspension Order 1941, gazetted 18 December 1941.

⁴ The substitution to occur within six months.

⁵ Memorandum of 30 April 1942, from Director of National Service to Chairman, **Industrial Emergency Council**. Copy in War History narrative No. 46. See also p. 482.

hours of industries which were not definitely associated with the war effort. Later in the year the danger of invasion lessened. The idea of full mobilisation was forgotten and no general increase in hours was made.

Up to May 1942, extensions of hours in essential industries had been permissive only, but a major change was made in this month when power was granted, initially under the Industrial Absenteeism Emergency Regulations, to actually enforce extended hours of work in industries which produced essential commodities or were directly engaged in war production. These regulations did not modify the 40-hour week so far as the basis of payment was concerned, but gave the Minister of Labour power to require longer hours of work in essential industries or in other industries specifically designated, and to delegate such power to his Controllers. ¹

¹ Even the District Manpower Officers were given power, by the Industrial Manpower Emergency Regulations, to extend working hours for a period not exceeding four days.

WAR ECONOMY

PAID ANNUAL HOLIDAYS

Paid Annual Holidays

The stresses of war did not prevent the Government from going ahead with one or two pieces of advanced labour legislation. For example, in April 1944, provision was made for a paid annual holiday of two weeks for all workers.² Paid annual holidays, as of right, had been a live issue for over a decade before the war, and a number of private bills had been introduced, unsuccessfully, into the House of Representatives. The principle was included in the programme of the **Labour Party**, when it became the Government in 1935. Holiday provisions already existing for some industries were liberalised before labour became really scarce,³ but the 1944 extension, guaranteeing annual holidays for numerous new groups of workers, was carried out in spite of labour shortages created by wartime conditions. However, by April 1944, initiative was passing from the Japanese to the Allies; and armed forces strengths were being reduced. The Government no doubt thought this was a good time to continue its labour legislation. Measures to give workers more leisure would make it easier to employ returning servicemen. It must be remembered that few people at this stage expected the full employment conditions of war to carry through for very long into the post-war period.

A considerable number of workers had previously had paid annual holidays of varying duration. The Act assured at least two weeks for all. The rights of workers to the statutory holidays were not affected.

² The Annual Holidays Act 1944, which came into force in August 1944.

³ For example, by the 1936 amendment to the Factories Act and by Section 17 of the Statutes Amendment Act 1938, as amended by Section 25 of the Statutes Amendment Act 1941.

WAR ECONOMY

MINIMUM WAGES

Minimum Wages

Out of the special wartime measures to protect directed workers against loss of earnings came another piece of more permanent labour legislation.

In October 1942 minimum weekly wage rates had been fixed for workers in essential industries. ¹ These rates were raised in May 1945 by ten shillings for men, and by five shillings for women and juniors. The new order continued in force until June 1946 when it was revoked. In the meantime, an Act ² had been passed in December 1945, to secure minimum wages for all workers. This Act is still in force, and the minimum rates are from time to time altered by Order in Council.

The Act provides 'an enforceable minimum wage for workers not subject to awards, industrial agreements, or other wage fixing machinery'. ³ It also incorporates the same protection against reduction in the working week as was given to workers in essential industries. ⁴ It provides that no deduction for time lost by any worker is to be made except for time lost 'by reason of the default of the worker, or by reason of his illness or of any accident suffered by him.'

¹ See p. 451.

² The Minimum Wages Act 1945.

³ **N. S. Woods**, *Industrial Conciliation and Arbitration in New Zealand*, p. 165. This book also refers briefly to the Act at pp. 142 and 173.

⁴ See p. 451.

WAR ECONOMY

WORKER EFFORT

Worker Effort

In the press, during the war, considerable attention was focussed on sections of workers who were slow in returning to work after holidays, who engaged in strikes or other militant action, or who worked with less effort than was expected of them. In particular cases much of this criticism was fully justified.

However, the much more significant general impression was of a drastically depleted force of civilian workers who managed to keep production increasing at a pace which, while not as high as the country's long-term rate of economic growth, ⁵ was surprisingly good under the handicap of supply uncertainties and other wartime difficulties.

The war effort was hindered by the loss of an average of 40,000 working days a year through industrial disturbances. This average was quite high compared with experience before the war, though there had been a worse period in the 1920s. However, the great majority of the workers did not take part in these disturbances. Two industries, waterfront work and coal mining, employing one-fortieth of the labour force, accounted for over three-quarters of all working time lost through disputes during the war period. ¹

One must not overlook the fact that a very considerable part of the pressure for a civilian war effort fell on the workers. The loss of personal freedom involved in direction of labour into industry was greater than for other sections of the community, apart from those who served in the armed forces. There was, moreover, some foundation for the contention that stabilisation, in spite of the Government's precautions to make it equitable, bore more rigidly on wages than on most other incomes. On the other side of the picture, the spectre of unemployment had gone,

prices of essential commodities were held stable, and there were ample opportunities for overtime and secondary employment to supplement incomes.

⁵ See also p. 441.

¹ Though some groups of workers were much more militant than others, the initial cause of a dispute was not always the fault of the employees. Some of the difficulties in water-front work were outlined in

Chapter 15. Industrial disturbances are discussed quite fully by Wood in *Political and External Affairs*.

WAR ECONOMY

THE CONSUMER

The Consumer

Though wage rates remained remarkably stable for most of the war years, the increased availability of overtime raised workers incomes, and the influx of women into the labour force meant an extra income earner in many homes. Manufacturers' and contractors' incomes were increased, also, by the pressure of demand for war production and essential civilian supplies, and by the good prices offering for war contracts generally. Moreover, New Zealand had entered the war with consumer spending at a high level. The inter-war period had seen a tendency towards equalisation of incomes, and the Labour Government's Social Security scheme accelerated the trend by transferring income into the hands of those with special needs, where the proportion of income spent was likely to be high.

High consumer spending, with its resultant pressure for imports, had been a contributing factor to balance of payments difficulties in 1938. Increased imports of capital equipment added to the external strain, and controls were placed on exchange and imports. Import restrictions, while they eased balance of payments difficulties, did nothing to remove the cause. The excessive demand inside New Zealand for goods and services remained, and was accentuated by war conditions.

In the early years of the war, the tendency towards high consumer spending hindered the Government's efforts to divert a maximum of resources to war purposes. Some of the monetary and fiscal measures used to cut back consumer spending are discussed in

12. Orderly marketing, rationing and other measures, which distributed scarce goods more fairly, reduced the fierceness of competition and eased the strain on the less favourably placed consumers.

The war did not halt the Social Security programme, though it may have slowed up its full implementation. The first Social Security benefits became effective from 1 April 1939 and, between 1938–39 and 1939–40, the cost of benefits and pensions rose from £7·7 million to £11·5 million. The annual commitment increased steadily to reach £17·6 million in 1944–45 and £20·9 million in 1945–46, after which the introduction of the universal family benefit and other extensions was to increase annual commitments by over 70 per cent. Thus, by 1945–46, the cost of benefits and pensions was almost three times what it had been in 1938–39, while the annual payments per £1 of private income were more than 50 per cent higher. This tended to add to potential spending by consumers at a time when there was inevitably a reduction in the availability of goods and services.

As indicated in

Chapter 12, an excess of spending power still remained in the hands of consumers, after extra taxation had had its effect. Despite Government restraints and organisation of distribution, a disorderly scramble would have ensued had not most consumers resigned themselves to the scarcity of goods, particularly consumer durables, and saved their money, to be used when goods became more plentiful. Special arrangements whereby workers could authorise employers to transfer regular amounts from their wages into National Savings Accounts played quite an important part in increasing savings by the general public. Intensive publicity campaigns for war loans also assisted, though much of this saving came from larger investors.

WAR ECONOMY

MARKETING OF FOOD

Marketing of Food

Wartime scarcities of some essential commodities required careful attention to marketing arrangements. Price stabilisation policies which, over a wide range of commodities, prevented prices from carrying out their usual function of equating demand to supply accentuated the shortages. With many commodities in short supply, it would have saved some administrative difficulties to have allowed prices to run free so as to cut back demand. However, the effect on individual consumers would have been inequitable, and, with the possibility of prices, wages, and incomes generally getting completely out of hand, there would have been no assurance that demand would have fallen sufficiently. The alternative was very careful co-ordination of marketing, rationing, and price control.

The administrative nucleus for wartime marketing already existed when war broke out. In 1937 the Government had acquired a private enterprise concern distributing dairy produce, and had formed from it the **Internal Marketing Division** of the Primary Products Marketing Department. Initially, the new Division acted as distributor of butter, cheese, honey, eggs, pork and bacon, but it was made responsible for other products as the need arose.

Inevitably, the entry of a Government organisation into marketing gave rise to considerable public criticism, which flared up whenever a commodity was in short supply or was not of high quality. That there would be many shortages was never in doubt. The quantity of goods available per head of population declined in each war year until, by 1944–45, it had fallen by well over a quarter.

At the outbreak of war, the immediate problem of the **Internal Marketing Division** was to plan a system of food control suitable for

wartime. The Division's activities were not entirely confined to dealing with shortages. One of the most difficult wartime assignments was to find a market in New Zealand for fruit which became surplus when **Britain** declined to arrange shipping for this cargo, which it regarded as of low priority compared with other food New Zealand could supply. The Division took control of all sales of graded apples and pears through wholesale channels, equivalent to nine-tenths of the crop. Growers were assured of a return of approximately five shillings a case, and sales were arranged through auctioneers and wholesale merchants. Local consumption had to be more than doubled, if fruit was not to be wasted. Some of the expedients used to boost consumption are discussed in

WAR ECONOMY

EGG MARKETING

Egg Marketing

The **Internal Marketing Division** had been marketing eggs for two years before the war, its purpose being to give growers a better price during the flush of egg production and to improve the winter supply of eggs to consumers. At this stage full control was not taken, but eggs were exported in the flush of the season, or were pulped for sale to bakers and manufacturers in the winter.

From 1940, an attempt was made to rationalise the market, so as to prevent some dealers from taking excessive price margins and to raise the standard of premises and facilities. Under the Egg Marketing Regulations 1940, the four main centres, and later **Napier** and Hastings, were declared to be 'Egg Marketing Areas' within which all eggs from outside must be sold through licensed distributors only, according to grade. Weekly price 'pools' were arranged to ensure fair prices to suppliers.

By 1941, with labour difficulties reducing the number of mixed farm and backyard flocks, and producing districts tending to use more eggs as some other foods became scarce, there was a tendency towards a permanent shortage of eggs in the main centres. Ultimately, to improve supplies to the centres, 'Emergency Marketing Areas' were established in producing districts. ¹ In these areas, poultrymen were to sell only to a central egg floor, from which supplies would be allocated among local retailers, cities, ships, camps, etc., according to the directions of the **Internal Marketing Division**. By 1945, twelve such floors were operating.

Eggs were not formally rationed to consumers, as were butter and a number of other commodities, but special priority arrangements were made to secure a minimum of three eggs a week for young children, invalids, and expectant and nursing mothers. ² In 1943–44 the Division

arranged for a weekly ration of eggs per person based on butter rationing registrations.

To cope with the overall scarcity of eggs, the **Internal Marketing Division** imported pulp and egg powder, and encouraged production of grains for poultry feed. From June 1944, a subsidy of 3d. a dozen eggs delivered to the floors increased the flow of eggs into Emergency Marketing Areas, but the special priority arrangements had to be continued until June 1950.

¹ By the Egg Marketing Emergency Regulations 1942. Gazetted 18 June 1942.

² Later in the war, expectant and nursing mothers received a minimum of six.

WAR ECONOMY

SHORTAGES OF VEGETABLES

Shortages of Vegetables

Prior to the war, the **Internal Marketing Division** had been concerned with alleviating shortages of potatoes and onions, or disposing of surpluses. This continued to be an important function in wartime. Whether in peace or in war, potatoes and onions have always been difficult crops for New Zealand, with variable seasonal conditions producing surpluses or shortages which are largely unpredictable. To a limited extent shortages can be filled from **Australia**, or surpluses exported there.

In 1942, because of an increasing demand for food for the armed forces, including American forces stationed in New Zealand, there was a period of short supply of most household vegetables. It was possibly aggravated by the fact that a large proportion of home gardeners were occupied with **Home Guard** duties at the weekends. ³ To meet these shortages, the **Department of Agriculture** started a Services Vegetable Production Scheme in July 1942 and entered the vegetable growing business on a large scale. ¹ The **Internal Marketing Division** was called upon to dispose of surpluses left over from the scheme after the armed forces' requirements had been met. On occasions, when civilian supplies were short, surpluses were placed on the market in New Zealand.

In August 1942, following a potato shortage, and with the Services Vegetable Production Scheme not yet effective, ceiling prices were put on kumeras, pumpkins, parsnips, swedes and white turnips, which were regarded as possible potato substitutes. These ceiling prices, while helping the consumer to cope with the potato shortage, created marketing difficulties in the commodities concerned.

Early in 1943 still greater increases in vegetable production became necessary. The demands from allied troops in New Zealand and in the

Pacific could not be met fully from the **Department of Agriculture's Services Vegetable Production Scheme**, even though the acreage used had been increased nearly threefold. To meet the position the **Internal Marketing Division** arranged for vegetables to be grown on contract, and then packed them for distribution. After using temporary premises for a while, the trimming and packing of vegetables was concentrated at **Pukekohe** and **Hastings**.

From late 1943, plants were set up at **Riccarton**, **Pukekohe**, and **Hastings**, to provide dehydrated vegetables for the **United States** forces in the **Pacific** and, in November 1944, a plant was opened at **Pukekohe** to supply canned vegetables. In the same month, units to provide quick-frozen vegetables were installed at **Pukekohe**. Many of these wartime developments were to lead to commercial undertakings which, after the war, would provide food for the domestic market or in some cases for export.

³ 103,000 were in the **Home Guard** by July 1942.

¹ See also p. 218.

WAR ECONOMY

CRITICISM OF THE INTERNAL MARKETING DIVISION

Criticism of the Internal Marketing Division

The **Internal Marketing Division** had as its main wartime function the more equitable distribution of scarce wartime supplies. Because of the Government's stabilisation policy, it was denied the effective use of price adjustments to help to equate supply to demand. It had in many cases an unenviable task. Instead of being credited with improving the distribution of scarce goods, it tended to be blamed for the scarcities. Scarcities of goods such as eggs and vegetables affected all consumers. Complaints tended to be very vocal indeed. Traders saw in the extension of Government marketing activities a threat to their own livelihood and freedom, and in most cases lost no opportunity to criticise the actions of the **Internal Marketing Division**. The Opposition in Parliament, which saw the Division as an attack on private enterprise, criticised it at every turn and advocated its abolition.

Actually the policy of the Division was to disturb normal channels of distribution as little as possible. In most cases it operated through existing merchants, but, where improved standards were needed in handling and storage facilities or in accounting for profit margins, distributors were licensed. ¹ By the end of the war, the Division was supervising the distribution of butter and eggs by licensed distributors; it was sole importer of most tropical fruits and kumeras, which it distributed through merchants on a commission basis, and it performed the same function where needed to make good local shortages of lemons, maize, potatoes, onions, egg pulp, honey, barley and barley meal. For locally grown apples, pears and most lemons, it guaranteed to purchase the crop and acted as sole distributor through merchants. Small quantities of these fruits were sold direct by growers to consumers. ² The Division guaranteed a full market at reasonable prices for local production of eggs, maize, potatoes, onions and kauri gum. It also

purchased and distributed molasses, some manures and agar seaweed, and was marketing adviser for a number of other commodities.

The Division could not hope to satisfy everyone. Nevertheless it did distribute scarce commodities as fairly as possible, and it reduced distributive costs at a time when the stabilisation policy required the paring down of all unnecessary components of cost. The magnitude of the task of distributing scarce supplies should not be underestimated. A more comprehensive view of the extent of overall shortages of goods is given in

Chapter 12. The tools at the disposal of the Internal Marketing Division were in any case inadequate. Control of prices, for example, was in other hands. A comment by the wartime Director of the Division is revealing.³ He wrote:

‘Perhaps the main conclusion arrived at after ten years’ experience is this, that it is impossible to interfere in one field or small area of marketing without affecting every aspect of production, distribution and price. The whole of the marketing and production system is wrapped up altogether.’

After the war most of the functions of the Internal Marketing Division were progressively transferred to producer boards. In 1948 there ceased to be a separate division for internal marketing, and in 1953 the Marketing Department was abolished.

¹ During World War I, when the Government thought meat prices were too high, it opened state shops in Auckland in 1917, which sold meat cheaply and forced the butchers to reduce their prices.

² Even under strict marketing arrangements, small sales direct to consumers for their own use were legal.

³ P. R. Fraser in a personal footnote to War History narrative No. 60.

WAR ECONOMY

RATIONING

Rationing

Only for a limited range of goods was it necessary to supplement the distribution efforts of the **Internal Marketing Division** by resort to formal rationing of consumers.

The first consumer item to be rationed was motor spirits. Restrictions were imposed from the outbreak of war and, except for a brief period at the end of 1939 and the beginning of 1940, continued throughout the war, not being finally abolished until May 1950. The arrangements made and the varying supplies available to motorists are discussed on p. 472.

Apart from a certain amount of panic buying in anticipation of rationing, ¹ the actual rationing of a particular consumer good often caused interesting reactions on the sales of other goods, as is illustrated by a newspaper report on the public reaction when petrol rationing was intensified, following **Japan's** entry into the war, in December 1941: ²

‘Yesterday morning will long be remembered by bicycle dealers in **Wellington** and the Hutt Valley. Before the shops had opened for business, groups of anxious-looking people assembled in the hope of acquiring a useful means of transport, even if it was less comfortable than a car. The dealers did brisk business, and by midday it was a matter of extreme difficulty to purchase either a man's or woman's bicycle. One determined suburbanite visited five shops in **Lower Hutt** and **Petone** before he succeeded in making a purchase, and was told it was the last machine in that shop. Another dealer stated that his house phone rang incessantly after the petrol announcement on Saturday night, and when he opened his shop yesterday morning his first task was to label every bicycle with the name of the man who had arranged its purchase. He had

a shop full of machines, all were sold, much to the chagrin of the steady stream of would-be purchasers who continued to call. Some dealers have telegraphed all parts of New Zealand in the hope of securing stocks.'

The result of this was a government attempt to husband stocks of men's bicycles for possible army use. ³

¹ See, for example, pp. 64 and 418.

² *Dominion*, 16 December 1941.

³ According to a report on 15 December from **Christchurch**, published in the *Dominion*.

Motor tyres, as we have seen, ¹ were reserved for priority users and for a while became unobtainable for private motorists, but at no stage was there the orderly allocation to motorists which was adopted for petrol with the coupon system.

¹ p. 139.

WAR ECONOMY

TEA AND SUGAR

Tea and Sugar

There was no further use of systematic rationing until the war in the Pacific had reached its most desperate stage. Sugar was rationed from 27 April 1942. An indication of some of the administrative problems involved in rationing is given in a statement by the Rationing Controller, Mr J. E. Thomas: ²

‘As from today sugar may be purchased only from licensed retailers by registered consumers on the surrender of the appropriate ration coupons....

‘... All retailers of sugar, whether licensed or not, are required to make a declaration to the Rationing Officer at their local post office as to the stocks of the various types of sugar held by them on the opening of their business today. Till this declaration is made retailers will not be able to obtain further supplies of sugar.

‘All wholesalers of sugar must make a telegraphed declaration to the Ration Controller as to the stocks held by them on the opening of business today. A special declaration under the Regulation in support of the telegraphed return must also be completed and forwarded by post to the Rationing Controller.

‘Commercial users requiring supplies of sugar should apply to the Rationing Controller at the post office in the district in which the business is operated. This applies to bakers, pastry cooks, dispensing chemists, bee keepers, bacon curers and manufacturers whose consumption of sugar is less than half a ton a month.’

The ration, after some changes, settled down at 12 ounces a week for each person for most of the remaining war years. ³ The effect of sugar rationing was to reduce consumption by roughly 10,000 tons a

year.

From the beginning of June 1942, tea was rationed, the allowance settling down at two ounces a week for all persons over nine years old.¹ Rationing is estimated to have reduced the consumption of tea per head by about 7½ per cent. There may be some doubt whether the administrative cost of rationing was warranted for this small saving. The difficulty was that some shortage could not be avoided. This and the psychological effect of rationing of other commodities could have caused panic buying, resulting in further shortages and a most unfair distribution, had rationing not been introduced.

² *Dominion*, 27 April 1942.

³ Initially the sugar ration was 12 oz. per person per week. The basic rate was adjusted to 3 lb per person per calendar month as from 1 August 1942; 2½ lb per person per calendar month as from 1 October 1942; and back to 3 lb per person per calendar month as from 1 December 1942. From 1 November 1943 to 18 March 1945, the ration allowance was 3 lb every four weeks (12 oz. per week), but from 19 March to 30 September 1945, it was reduced to 10 oz. per week, after which the allowance of 12 oz. was reverted to. There were additional allowances per person for jam-making as follows: 1942, 6 lb; 1943, 12 lb; 1944, 12 lb; 1945, 9 lb; 1946, 9 lb; 1947, 9 lb. Provision was made for the supply of sugar to collective consumers according to the number and class of meals served. Sugar rationing ceased on 27 August 1948. Information from *New Zealand Official Yearbooks*.

¹ Initially tea was rationed over the whole population (except infants under six months) at 8 oz. per calendar month, but children under ten years of age were eliminated from the scheme on 1 November of the same year. The ration was changed to 2 oz. per week on 1 November 1943. Additional allowances of 4 oz. were granted for each of the following months: December, 1942, and March, April, and December 1943. Permits were granted for the requirements of collective consumers. On 1 August 1946 persons 70 years of age and over were granted an additional

allowance equivalent to 4 lb per annum. Tea rationing ceased on 31 May 1948. Information from *New Zealand Official Yearbooks*.

WAR ECONOMY

DIFFICULTIES WITH CLOTHING

Difficulties with Clothing

Much more difficult to administer was the rationing of clothing, footwear and household linen, introduced in May 1942. A coupon system was used, each person being allowed a specified number of coupons for each rationing period. Varying coupon values were assigned to different articles.

Rationing, however carefully administered, could not always avoid exhaustion of stocks. Fluctuations in clothing stocks were particularly difficult to foresee. Replying to a question in the House of Representatives in August 1943, the Minister of Supply and Munitions, the [Hon. D. G. Sullivan](#), said: ²

‘All possible steps have been taken to maintain supplies of children's footwear generally. The shortages, which have not been confined to country districts, have been due principally to the decreased supplies available from the [United Kingdom](#) during 1941 and 1942 but also to the huge production of military footwear in our local factories. Advice was received, recently, however, that New Zealand's quota of infants' footwear from the [United Kingdom](#) for the current year would total 450,000 pairs (which is a very satisfactory figure) and together with increased local production of children's footwear, which has become possible because of diminished military requirements, it is anticipated that the shortage of children's footwear will be overtaken. I have given special instructions that the production of children's footwear should be regarded as of the highest priority.’

Shortages were a frequent subject for questions in Parliament. In April 1944 the same Minister said: ¹

‘At the present time I am not able to indicate with certainty when pyjamas will become available in substantial quantities for general sale to the public. At the moment every endeavour is being made by the Government, working through the New Zealand Garment Control Council and district control committees, for the allocation of work within the clothing industry in a way that will secure the production of most essential garments as quickly as possible. Pyjamas are in the highest priority-group, and reasonable material supplies are available for pyjama manufacture. However, the shirt and pyjama manufacturing group is at present engaged almost entirely in meeting orders from the Armed Services. It is expected that arrears of orders for the Armed Services will be overtaken shortly and that quantity production of pyjamas for the civilian market will commence in the near future.’

There were also revealing references in a statement by the [National Garment Control Council](#) in May 1945. ² For example:

‘Faced with a serious shortage of women's underwear at the beginning of last year, the industry has taken effective steps to overtake the position.... The Council makes no attempt to minimize the fact that in certain categories of clothing, shortages continue to exist. There are, for example, big shortages of men's three piece suits, shirts, and some items of children's clothing. To rectify these shortages before they reach the acute or critical stage, the garment manufacturing industry, with the backing of the Factory and Manpower Controllers, is continuing to afford first priority production to these items. The benefit of this arrangement is already apparent, as witnessed in the manufacture of 27,350 suits during the first quarter of this year. Strenuous efforts are being made to increase materially the supply of men's and children's clothing even to the extent of diverting manpower where practicable. Inspections are being carried out by representatives of the Factory Controller to make certain that the manpower within the industry is being used to the best advantage.’

Clothing rationing ceased in 1947.

² *NZPD*, Vol. 263, p. 560, 5 August 1943.

¹ *NZPD*, Vol. 264, p. 968, 4 April 1944.

² *Dominion*, 31 May 1945. The function of the Council is explained in the following statement by the **National Service Department** (Parliamentary Paper H-11 A, 1946, p. 46):

‘In November, 1943, a **National Garment Control Council and **District Garment Control Committees** were set up to maintain a close watch on production and to set production targets for critical lines. With such targets established it became possible for District Manpower Officers, assisted by Utilisation Committees, to take much more drastic steps to transfer labour into factories prepared to concentrate on these critical lines.’**

WAR ECONOMY

RATIONING OF NEW ZEALAND-GROWN FOODS

Rationing of New Zealand-Grown Foods

Ultimately even New Zealand-grown foods were rationed. Increasing pressure to supply maximum quantities of bacon and ham to **United States** forces in the **Pacific** led to the first restrictions on purchases of meat by New Zealanders. From May 1943 consumption of fresh pork was prohibited. ¹ Rationing of dairy products and of other types of meat followed, after repeated representations from the **United Kingdom** for extra food supplies from New Zealand.

Butter rationing commenced in October 1943 with an allowance of 8 oz per person per week. ² By way of comparison, the ration for consumers in **Britain** was 8 oz per week of all fats, including butter, margarine, lard and vegetable oils.

Rationing of butter gave rise to requests for special consideration for workers in heavy industries; in fact, in some cases, the requests became vigorous protests, and the Minister of Supply was moved to reply publicly. The *Dominion* reported: ³

‘The threat by the **West Coast** timber workers to strike unless the butter ration was increased to 1 lb a week for all workers engaged in the timber industry was the subject of a statement last night by the Minister of Supply, Mr Sullivan.

‘Actually, prior to the annual meeting of the Union at Grey-mouth representations in the normal way had been received on behalf of the timber workers from Mr F. Craig, National Secretary of the Timber Workers Union, and along with representations from the **Federation of Labour** on behalf of other groups of workers in heavy industries, the timber workers' case was being considered by the Government. These investigations are not yet complete, but

when they are the Government will make its decision in respect of all representations received, solely on the merit of the respective cases and on no other basis.

“I desire to make it perfectly clear that the Government has no intention of allowing its consideration of the matter or its judgment to be diverted in any way by threats or inflammatory language....”

¹ Some minor exceptions were made. In the following month bacon and ham curers were placed on a quota of a certain number of pigs per month. The restrictions on pork were lifted on 17 December 1945, although this class of meat remained subject to general meat-rationing.

² The ration was reduced for most consumers to 6 oz. a week in June 1945 and raised again to 8 oz. in October 1949. Rationing ended in June 1950.

³ 13 November 1943.

‘The Minister paid a tribute to the splendid war effort of the timber workers in both Islands throughout the war, specially the forest companies who went to **Britain**, where the services they rendered earned the highest praise from the British authorities.’

Discussions then became much less public, but a fortnight later the same paper reported: ¹

‘It has been decided to grant coal miners an extra ration of four ounces of butter a head a week, according to information received in **Christchurch** today. Sawmillers and bush workers living in isolated districts will also qualify for this additional ration, especially those in localities where their diet is restricted because of lack of normal shopping and other facilities.’

Thereafter criticism of the Government waxed eloquent.

This extra ration was continued for the duration of butter rationing. Some other groups, such as freezing chamber hands, were also given the extra ration.

It was estimated that restrictions on the use of butter by consumers and by manufacturers reduced per head consumption in New Zealand by a quarter, and made available an extra 8000 tons a year for export or supply to the **United States Forces.**

Cheese was not officially rationed to consumers, but available supplies were shared out by individual grocers. The amount of cheese released by factories for local consumption was subject to regulation by the Food and Rationing Controller. Cream could not be sold to consumers except to persons suffering from certain ailments.

Meat was rationed from March 1944 on a value basis. The original adult ration was estimated to purchase 2½ pounds of meat a week. ² There was an estimated reduction of roughly 10,000 tons

¹ **Christchurch** message dated 26 November.

² Rationing applied to practically all fresh carcass meat, an exception being mutton skirts. The value of the original adult weekly ration, estimated to purchase on the average 2½ lb of meat, was fixed at 1s. 9d., increasing to a maximum of 2s. according to seasonal price changes. Children under five years (excluding infants under six months) were allowed half-rations. On 11 June 1945, the ration was reduced to 1s. 6d. – 1s. 9d. (2 1/7; lb) per week. With the removal of the meat subsidy on 29 September 1947, a corresponding increase was made in the value of the ration to bring it up to 1s. 11d. – 2s. 2d. so that it would still yield 2 1/7; lb of meat.

Additional allowances were granted to certain classes of workers because of special working conditions, and to persons suffering from certain ailments. Manufacturers (of pies, etc.)

were allowed two-thirds of their pre-rationing usages. Canned corned beef and corned mutton were not available for local consumption except by workers in isolated districts where there was difficulty in obtaining fresh meat. Although there was no restriction on the local sale of canned tongues they were practically unobtainable. There was no restriction on wet packs, that is, mixtures of meat and vegetables. Freezing companies were instructed to limit their deliveries of edible offal to the local market to the pre-rationing level. Poultry and fish were not rationed. Information from *New Zealand Official Yearbooks*.

a year in local consumption through rationing. Meat rationing ceased in September 1948.

Arrangements for the less formal sharing of supplies of eggs and other essential food items have been discussed earlier in this chapter. For most of the widely used essential items, the Government introduced some method of equitable distribution, unless, as in the case for example of flour and bread, ¹ supplies remained adequate for all users.

¹ See also p. 143.

WAR ECONOMY

RATIONING IN THE UNITED KINGDOM

Rationing in the United Kingdom

A comparison of weekly food rations in New Zealand and the **United Kingdom** in 1944 is useful but does not give the full picture. Rations varied in some years, and, for most of the commodities, the **United Kingdom** commenced rationing several years before New Zealand.

<i>Commodity</i>	<i>Weekly Ration per Person in 1944</i>	
	<i>New Zealand</i>	<i>United Kingdom</i>
	<i>oz.</i>	<i>oz.</i>
Sugar	12	8
Jam	N.R. ²	4
Fats –		
Butter	8	8
Other	N.R.	
Liquid milk	N.R.	40 ³
Cheese	2 ⁴	3
Tea	2	2
Bacon and ham	3 ⁴	4
Other meats ⁵	40	20

² N.R. means not rationed.

³ Rising to 80 oz. seasonally according to supply. Larger amounts for children.

⁴ Not rationed, but supply controlled at approximately this quantity per head of population.

⁴ Not rationed, but supply controlled at approximately this quantity per head of population.

⁵ **Approximately. Actually expenditure was rationed at 1s. 9d. to 2s. a head in New Zealand and 1s. 2d. a head in the United Kingdom. Children received less in both countries.**

WAR ECONOMY

CONSUMER SUBSIDIES AND PRICE CONTROL

Consumer Subsidies and Price Control

Most of the rationed items were price-controlled and many were subsidised. Subsidies and price control were discussed in

Chapter 12. Apart from their use in curbing some of the effects of inflation and removing some of the influences tending to further inflation, consumer subsidies made possible a fairer distribution of scarce goods. Without subsidies and price control the better-off sections of the community would have received an increased share, simply because they were able to pay higher prices than some people could afford. However, the artificially lowered prices, by keeping up demand when goods were scarce, increased the need for rationing and other special distribution arrangements and encouraged black marketing.

WAR ECONOMY

THE MOTORIST

The Motorist

Supply problems for the private motorist were discussed in

15. ¹ Compared with these problems, the extra 4d. a gallon petrol tax imposed from the outbreak of war was but a trivial annoyance. Except for the small proportion who had producer gas plants fitted to their cars, ² the running which motorists could do was limited by the fluctuating petrol ration.

Initially, sheets of consecutively numbered coupons, each for two gallons, were issued to motorists through the Post Offices; and the Oil Fuel Controller had power to fix the date after which any particular coupon could be redeemed. In September 1939 ten gallons per car was made available, and in October 12 gallons. However, the Minister of Supply on 6 October announced that cars over 14 horsepower would be allowed 50 per cent more than smaller cars, to give them about the same amount of running. Consecutively numbered 3-gallon coupons were now issued for the larger cars.

After the suspension of rationing in December and January, four 2-gallon coupons were made redeemable in February 1940 for light cars, and four 3-gallon coupons for heavy cars, to provide from 180 to 280 miles of running. Similar arrangements applied for the rest of the licensing year.

With the relicensing of motor vehicles at the end of May, cars were divided into three groups: under 9·5 horsepower, from 9·5 to 14·5 horsepower, and over 14·5 horsepower. Basic rations starting in June were to be 6, 9 and 12 gallons a month respectively, to give between 216 and 225 miles of running. However, with the fluctuating supply position, these allocations were varied from time to time. In August 1941, for example, with tankers not arriving regularly and stocks down to less than 20 million gallons, ³ rations were only half those set for June 1940.

Usually, rather more than the normal allocation was made available for the Christmas holiday period.

Petrol rationing continued until 1 June 1950. ⁴

¹ pp. 117–18 and 416–19 respectively.

² The Transport Department reported in Parliamentary Paper H-40 for 1943 at p. 4:

‘Gas-producers. These plants are manufactured under licence from the Factory Controller. The issue of permits to fit them was transferred from the Factory Controller to the Oil Fuel Controller last June, and since that date permits have been issued for 196 cars, 96 trucks in the **North Island, and 35 cars and 8 trucks in the **South Island**. Declarations at the time of registration of motor-vehicles indicate that there are 1339 cars and 361 trucks fitted with gas-producers in the **North Island**, and 434 cars and 146 trucks in the **South Island**.’**

³ About two-thirds of normal.

⁴ See also p. 421.

WAR ECONOMY

THE BLACK MARKET

The Black Market

With shortages, rationing and price control, a certain amount of black-market selling of goods was to be expected. From time to time cases came to light. It is probable, however, that most consumers abided by the spirit of the rationing arrangements and that, where black marketing tended to develop, it was nipped in the bud. The Courts generally took a firm stand. In dealing with cases of black marketing of motor spirits in May 1942, as a result of which three men were sent to jail, and many others fined, the Magistrate, Mr **J. L. Stout**, said: ¹

‘I think it is appropriate, before inflicting penalties in these cases, that I should state, now it is evident that rationing is likely to be increasingly extended to other goods and commodities, that I consider it is essential that any attempt to foster black markets in New Zealand should be promptly crushed. The only way, in my opinion, to do this, is to inflict such penalties as will not only punish the present offenders but will be of sufficient severity to deter others from following their examples.’

Marketing of scarce farm products was much more difficult to control because of the wider variety of possible selling points. Farm-gate purchasing of eggs by consumers, for example, has normally been a method of disposal of part of production. With supplies short, and the Government endeavouring to provide priorities for pregnant mothers and others with special needs, practices such as this had to be curtailed in the interests of a fair distribution to all consumers. There were other problems with regard to eggs. For example, the *Dominion* reported in June 1942: ²

“A big black market in eggs is developing in **Auckland** and **Wellington**, and it is draining eggs away from the distributive

channels,” said the Minister of Marketing (Mr Barclay) to a deputation of **Christchurch** commercial egg producers, who complained yesterday they had been penalised by their loyalty to organised marketing in having to send eggs to **Wellington**. Their complaint was that they were charged double commission and grading fees, and their receipts were below those obtained by producers who marketed eggs in **Christchurch**.

“... The opinion of the **War Cabinet** is that the Regulations will have to be more drastic to force all eggs through the

¹ *Dominion*, 14 May 1942.

² *Ibid.*, 10 June 1942.

distributive channels,” said Mr Barclay. “There will be a shortage of eggs for pulp and everything this year.”¹

Eight days later, on 18 June, the Egg Marketing Emergency Regulations tightened up marketing arrangements.²

Prescribed marketing channels for fruit and vegetables were also evaded at times. On 22 May 1943 the *Evening Post* reported:

‘Prosecutions were pending in a number of districts for alleged cases of black marketing, said the Minister of Marketing (Mr Barclay) today.

‘The **Internal Marketing Division** was endeavouring to put a stop to black marketing and was investigating any cases brought to its notice, added the Minister.

‘He was commenting on a report from **Christchurch** that increased black market trading in fruit and vegetables was alleged by retailers, brokers, and growers. One allegation was that more pears were being sold on the black market than through regulation

channels.'

These are some of the bad examples and should not be allowed to give the impression that such practices were widespread. No full survey is possible, but for most commodities black marketing seems to have been kept to narrow limits.

¹ Egg marketing arrangements were discussed earlier in this Chapter (p. 461). Eggs were price-stabilised from 1 September 1941. See p. 283.

² See also p. 462.

WAR ECONOMY

RACING

Racing

In all the war years, including periods of greatest stress, when industries were being rigorously examined to see whether they were essential to the war effort or not, New Zealanders had to have their cigarettes, their beer, and their horse racing. Soon after the outbreak of war, the question of the unrestricted continuance of race meetings was raised by various people, but a number of arguments, many of them quite ingenious, were put forward against curtailment. In 1940 there was only one less racing day than there had been in 1939.

There was, however, growing pressure against the full-scale continuance of racing when a maximum war effort was being sought. In January 1941, the first rather timid Government action was taken, when it was decided that permits not used by a club could not be transferred to another club. In June 1941, public opinion was crystallised by the action of a section of the freezing workers at Westfield who decided to take the afternoon off work to go to the races; but it was not until after **Japan's entry into the war in December 1941 that the Government took any firm action. Cuts in the number of racing days were made in two steps, reducing them, by March 1942, to just over half of what they had been in 1939.**

In spite of protests against this curtailment, it continued until October 1944. Then, when the war situation looked more hopeful, a further twenty days of racing were allowed. This did not satisfy racing interests, but, because of fuel shortages and other transport difficulties, the Government stood firm.

In 1945 there were 182 racing days compared with 320 in 1939. However, in these 182 days, £12 million was invested on the totalisator as against less than £8 million in 1939. In 1946 the wartime restrictions

were removed. Totalisator investments reached almost £20 million in this year, two and a half times their value before the war.

WAR ECONOMY

THE IMPACT OF AMERICAN FORCES IN NEW ZEALAND

The Impact of American Forces in New Zealand

The war gave New Zealand its first experience as host to foreign armed forces. The arrival of American forces in June 1942 brought a feeling of relief to many New Zealanders. Menaced by the southward sweep of Japanese forces in the **Pacific**, they had spent their most anxious time in the first half of 1942. Much of New Zealand's fit manpower was engaged overseas; what remained could not be adequately armed. The measures taken to defend the very long shore line of this sparsely populated country were desperate and determined, but completely inadequate. The only strong opposition to **Japan** in the **Pacific** was from **United States** forces, which might be occupied elsewhere should New Zealand be attacked. Churchill had given assurances of British aid should New Zealand be invaded,¹ but it was feared that help would arrive too late.²

The position seemed to change completely when the USS *Wakefield* entered Wellington Harbour on 14 June 1942. She carried 5000 **United States** servicemen. By the end of the year over 15,000 Americans were in New Zealand. For 1943 and the first half of 1944 there were usually about 30,000,³ though the numbers

¹ For example, Churchill wrote, on 17 March 1942, in a cabled message to the Prime Minister of New Zealand:

‘The fact that an American Commander will be in charge of all the operations in the **Pacific** area will not be regarded by His Majesty's Government as in any way absolving them from their determination and duty to come to your aid to the best of their ability, and if you are actually invaded in force, which has by no means come to pass and may never come to pass, we shall do our utmost to divert British troops and British ships rounding the Cape

or already in the **Indian Ocean** to your succour'—
Documents, Vol. III, No. 160 (**New Zealand War History
Branch**).

² **Wood in his**

Chapter 16 deals with New Zealand's defencelessness at this stage.

³ See also **Table 15**.

varied considerably as contingents were moved into the **Pacific** and others replaced them. All were stationed in the **North Island**, mostly around **Auckland** and **Wellington**.

The first American arrivals found camps ready for them. Many more camps were to be prepared by New Zealanders for American servicemen and much of their food was to be supplied from local production. Besides the camps, hospitals to accommodate 9400 patients, stores and many other buildings were constructed and handed over for American use. ¹

Relationships between New Zealanders and the visiting servicemen were most friendly. An American writer sums up for one Marine division: ²

‘It is doubtful if any alien troops ever received a warmer and more sincerely friendly welcome than the Second Marine Division got in New Zealand. Nearly every home was open to them, and thousands of Marines learned the niceties of 11 a.m. “morning tea” and 4 p.m. “afternoon tea”. As often as they could the Marines donned their green winter service uniforms and responded to dinner or week-end invitations in **Wellington**, **Paekakariki**, **Otaki**, **Palmerston North**, and **Foxton**. The friendship was not one-sided—the Marines immediately and immensely liked the New Zealanders, and they charmed their hosts and hostesses by quickly adapting themselves to local ways.’

American servicemen spent freely in New Zealand. They were paid at higher rates than most servicemen of other allied countries. Those who had been in action had substantial amounts of back-pay to draw. Their dollars, exchanged into pounds at the current rate, would buy much more than in the **United States**.

Florists, milkbars, hotels, night clubs and restaurants did a roaring trade with the Americans. Taxis could not cope with all the business offering; dry cleaning and pressing shops were overworked.

To the New Zealand consumer this extra demand was not an unmixed blessing. Many traders saw such good profits to be made from the Americans, with their high pay and free spending, that they annoyed New Zealanders by neglecting them. Commodities already in short supply became even scarcer under pressure of the American demand.

Equally significant was the effect on the labour market. The American authorities, in **Auckland and **Wellington** particularly, hired civilian personnel and made inroads on the labour force which was already in short supply. By paying higher rates of wages**

¹ See also

² Richard W. Johnston, *Follow Me*, p. 83.

than were customarily paid by local employers, they secured first call on labour which was not held under direction in essential industries.

At current rates of exchange these wage rates may not have seemed high to the Americans, but their purchasing power in New Zealand was greater than similar workers could have had in **America**. New Zealanders rushed for opportunities to work under such favourable conditions. Those who missed out became dissatisfied, especially those who were prevented from joining in the scramble by being held under direction in essential industries. New Zealand employers unable to meet the higher wage costs were also aggrieved.

In November 1942, when it became apparent that more New Zealand civilian labour would be needed, because **United States** troops were no longer available to handle supplies to and from the wharves, ¹ a conference was held in **Auckland** with the **United States** authorities. A member of the **War Cabinet**, Mr J. G. Coates, was present, with the Secretary of Labour. In the course of discussion the Americans were requested to pay award wages; but agreement could not be reached on this point.

In 1943 and the first half of 1944, various **United States** authorities in New Zealand usually employed between 1500 and 2000 civilians as regular workers, as well as casual labour which might vary between 500 and 2500 according to circumstances.

Not only were high rates paid for most of this civilian labour, but the supervision seems often to have been inadequate. Large sums were paid out in overtime, but there was often no effective check on hours worked. Some employees claimed and were paid wages for hours of work which they could not possibly have worked. One, for example, was paid for

hours which implied that he had averaged three hours sleep each 24 hours for a fortnight. While this was an extreme case, plenty of other improbable cases came to light.

Meantime, after December 1942, the wage rates New Zealand employers could pay were restricted by the Stabilisation Regulations. Not surprisingly, many became disgruntled.

A fundamental difficulty was that there was no central **United States** employing agency in New Zealand. By the time a determined attempt was made to bring about an improvement, the position had been aggravated by the considerable numbers already employed at high rates of pay by a variety of **United States** agencies.

¹ Waterside workers handled American supplies from ships' holds to the wharf sheds.

The New Zealand Government was embarrassed by the higher wage rates being paid by the **United States** authorities, because of its effect on the stabilisation scheme, and because scarce labour in New Zealand was being depleted. Then, in the course of investigations into liability for the insurance of workers, in June 1943, ten months after the signing of the Lend-Lease agreement, a somewhat startling new piece of information came to light. Under the agreement New Zealand was responsible for payment of most of this labour under Reverse Lend-Lease. ¹

Had this important fact been made known earlier it might well have changed the course of events. The Secretary of Labour wrote in July: ²

‘... had it been made known to the late Mr Coates and myself when we visited **Auckland** last November that wage costs were a charge against lease-lend, we would, I think, have been in a different position and could have requested closer control over the wages paid.’

Further representations were made to the **United States** authorities

and some improvement followed, but the position was never completely satisfactory. The damage had been done—existing employees were receiving the higher rates of pay. Dissatisfaction somewhere was inevitable.

There is no real excuse for the New Zealand failure to realise the implications of the Lend-Lease Agreement. But perhaps the rather loose arrangements for employment of civilian labour by some American authorities highlights a more important point. There is a need to guard against a possible weakness in inter-Government reciprocal arrangements, such as the Lend-Lease Agreement. One government, not having to bear the cost, may have an inadequate incentive to provide effective supervision of the people it employs; the other, not being directly concerned in particular contracts, is unable to do so.

These economic influences of stationing American servicemen in New Zealand, while they had an important effect on life in New Zealand at the time, were trivial compared with the economic advantages of the movement of supplies under the Lend-Lease Agreement. Moreover, the most significant aspect of their presence here was the measure of security it brought against Japanese invasion.

Most United States personnel had left New Zealand by the middle of 1944. Many New Zealanders were sorry to see them go.

¹ All labour except administrative personnel was to be paid under Reverse Lend-Lease.

² Secretary of Labour to Officer in Charge of Labour Department, Auckland, 20 July 1943. Copy on Labour Department file 3/3/1684.

Lasting friendships had been made, and about 1400 New Zealand women married American servicemen.

In October 1944 a [Wellington](#) newspaper reported: ¹

‘The United States Naval Operating Base in Auckland will be closed on Sunday morning and its officers and enlisted men will leave New Zealand shortly. The American flag, which flies over the Base headquarters, will be lowered at 9 a.m. and this small ceremony will virtually close a period in New Zealand history which has been of great significance to this and neighbouring countries, and of intense interest to all New Zealanders.’

¹ *Evening Post*, 21 October 1944.

WAR ECONOMY

THE PEOPLE AT WAR

The People at War

It was inevitable in time of war that freedoms would be lost and people would have to suffer a reduction in living standards. The much reduced supply of goods would be distributed equitably only if very great care was taken.

The surprising thing was the smoothness with which sweeping economic adjustments were made, and the readiness with which they were usually accepted. A number of exceptions have been noted, for example the scrambles, on occasions, to get possession of scarce supplies of a particular commodity. These were usually of short duration, and the practice of queueing for supplies did not reach unreasonable proportions in New Zealand. These facts, put against the background of increased incomes, a large reduction in the per head availability of goods, and comparatively stable prices, must stand as a tribute to those who were responsible for the organisation of rationing and marketing in New Zealand. They are a tribute, also, to the tolerance of the New Zealand consumer.

Services as well as goods tended to be in short supply. Electricity and gas shortages were discussed in

Chapter 16. Delivery services of bread and other commodities were eliminated. ² Most other civilian services were hampered by shortage of labour.

Apart from the effect of petrol rationing on private motoring, travel became more difficult. Train services were restricted from May 1940 and, when the coal shortage worsened, permits were required for a time to travel more than a certain distance. ³ The problems created for the railways by uncertain coal supplies, and the extra military load they carried were discussed in

Chapter 15.

Most health services had been newly taken under the social security scheme, and were used more intensively than before the war. Hospital and maternity benefits had been introduced in 1939. Some medical benefits followed in March 1941, pharmaceutical benefits in May 1941 and a general scheme of medical benefits in November 1941. At this stage, most people received free medical attention, hospitalisation and prescriptions. Some hospitals and doctors might charge the patient more than the fee allowed under the social security scheme, but, in the early years, few people were asked for these extra charges. With the resulting increase in use of hospitals, coupled with the increasing shortage of labour of all kinds, hospital staffing became one of the most difficult manpower problems.

Many people who, because of wartime shortages, were unable to buy the things they wanted, set aside their money for use when goods and services became available. Savings bank deposits had changed surprisingly little in the twenty years 1921 to 1941. In the former year there was £43 million to the credit of depositors and in March 1941 £63 million. Then savings began to increase rapidly, and the amount to the credit of depositors had doubled by 1945–46. During the war years some £65 million of funds was transferred from private to government use through Post Office Savings Bank accounts. In addition, the people had, by March 1946, contributed as savings nearly £27 million through National Savings accounts which first became available in 1940, together with £11 million invested in National Savings Bonds, quite apart from contributions to War Loans. ¹

Thus did the people accept reduced living standards. Many other wartime sacrifices were required of them. Even conscription and direction into industry were widely accepted, when the time showed them to be necessary. Reasonable equality of sacrifice was all that was asked by most people, and, apart from one or two groups which seemed to be naturally militant, it was only when major inequities seemed to be

emerging that any large body of people showed reluctance to meet the demands of a war economy.

² Milk deliveries continued but were zoned.

³ Over 100 miles in the [North Island](#) from July 1942 to January 1943 and over 50 miles in either island from January 1944 to September 1944.

¹ See also

Chapter 10.

WAR ECONOMY

CHAPTER 18 – EASING THE STRAIN

CHAPTER 18

Easing the Strain

Peak Mobilisation

WHEN the armed forces reached their peak strength, in September 1942, the civilian labour force had been depleted by well over a fifth. The services had taken mostly younger, fitter men; for part of 1942, over half of all males aged between 18 and 45 were serving.

The threat of Japanese invasion had seemed most ominous in the first nine months of 1942. Between November 1941 and September 1942, the numbers serving in New Zealand increased from 36,000 to 107,000. With some 50,000 men then serving overseas, there were at the peak mobilisation point 157,000 persons in the forces, out of a labour force estimated at the outbreak of war at 700,000 men and women.

But the limit had been reached. It was difficult enough to transfer so many people out of industry; quite impossible to keep the economy working efficiently without them. What had been achieved under stress of the threat of Japanese invasion could not be sustained for more than a few months.

From the middle of 1942 the increasing flow of American forces into the **Pacific** had stepped up the demands on New Zealand for food and services; but the depleted civilian work force was hard pressed even to maintain existing supplies.

In July 1942 the Director of National Service, writing to his Minister, had suggested that New Zealand was rapidly approaching the limit of its resources. His Department estimated that, by then, armed service recruitments had taken 14 per cent of all the male workers in primary industries, 25 per cent of those in secondary industries, and 37 per cent of those in other industries. He recommended that no further men be balloted for the armed services.

The Government, however, faced with commitments to maintain overseas forces on two fronts and still seized of the need to strengthen the home army, decided to continue with the ballots.

It was already apparent that the demands of the armed services for more men could no longer be met without curtailing food production and essential services.

There was some pressure at this stage for a ‘total war effort’,¹ with drastic reorganisation of industry to provide for the maximum use of every available man and woman in the interests of the war effort. Suggestions included a minimum working week of 48 hours for manual work, and 44 hours for shops and clerical work, the elimination of non-essential services and commodities, and the substitution of womanpower for manpower to the furthest possible extent. There would be rationalisation of industry based on the standardisation and simplification of products, pooling of plant and transport, and zoning of distribution. Of the proposal, the Director of National Service wrote, ‘... the Forces may be able to be supplied with the manpower they require, if the economy of the country as a whole is placed on a total war basis’.

In August 1942 an inter-departmental committee, the [War Planning and Manpower Committee](#), started detailed work to this end. It is by no means certain that the proposal would have been adopted had a detailed scheme emerged. The Government had, so far, avoided major reversals of its labour legislation, except as required in essential industries. Wood writes:²

‘Administrative difficulties would have been immense, and unless the community had been confronted with an immediate threat of invasion or defeat, discontent at such drastic measures might well have been keen enough to cause that economic dislocation which they had been designed to avoid.’

In the event, the [Pacific](#) war situation improved later in the year. The Committee ceased to function and, though the demand for scarce

manpower was still increasing, no more was heard of the 'total war effort'.

We have seen, in

Chapter 5, how men had been drawn out of the unemployment pool and from subsidised work, as wartime pressures for extra manpower increased. Of 19,000 men on unemployment benefit or in subsidised employment in September 1939, 13,000 remained in December 1940, and 6000 in December 1941. The year of peak mobilisation reduced this figure, by December 1942, to the then unbelievably low figure of 2000.

Even with the absorption of this reserve pool of labour, together with the wartime entry of some 36,000 extra women and the return of many older people into the labour force, the supply of labour to meet the needs of wartime production remained pitifully

¹ See also [p. 456](#).

² Wood, p. 248.

inadequate. ¹ The mounting pressure on labour in industry is reflected in the records of overtime worked in factories. From a then high figure of 3.6 million hours in 1938–39, overtime increased steadily to over 6 million hours in 1940–41, then to nearly 9 million hours in 1941–42. In the next year it soared to over 14 million hours, and, in spite of reductions in armed forces strengths after September 1942, it was to be even higher for the rest of the war.

As late as mid-October 1942, the army was still calling for more men to serve in New Zealand. A summary presented to a secret session of Parliament estimated overall needs for the services at this time at 30,000 more people than at the peak mobilisation point.

Without further mobilisation of manpower and much more intensive use of the remaining industrial labour force, it was impossible to meet all demands.

¹ See also [Table 19](#).

Tension Reduces in the Pacific

The Battle of Midway on 4 June 1942, though this may not have been realised at the time, had been a turning point of the war in the **Pacific**. In early August 1942, **United States** forces had landed at **Guadalcanal** and **Tulagi**. Later in the same month the Japanese attack had been turned back in a large-scale sea battle off the East Solomons. On 30 November 1942 the naval battle off **Guadalcanal** stopped the southward drive of the Japanese. Of **Guadalcanal**, Admiral Halsey said: ²

‘... This battle was a decisive American victory by any standard. It was also the third great turning point in the war in the **Pacific**. Midway stopped the Japanese advance in the Central Pacific; Coral Sea stopped it in the South West Pacific; **Guadalcanal** stopped it in the South Pacific.... If our ships and planes had been routed in this battle, if we had lost it, our troops on **Guadalcanal** would have been trapped as were our troops on Bataan. We could not have reinforced them or relieved them.... Unobstructed, the enemy would have driven south, cut our supply line to New Zealand and **Australia** and enveloped them.’

Much bitter fighting still remained, but **War Cabinet**'s assessment of priorities changed and the home army was allowed to decline.

In November 1942 there were 104,000 persons serving in New Zealand, 3000 fewer than at peak mobilisation. Between November 1942 and August 1943 their numbers decreased by 31,000. However, while the home forces were decreasing, there was an increasing outflow of men for overseas service. The 3rd Division moved into the **Pacific** in the last months of 1942, and reached a strength of 12,600 in January 1943, which was raised to 17,700 by September and kept at about this level for the following six months. The number serving in all areas did not fall below 140,000 until after August 1943.

² As quoted in *The War, 1939–1945*, p. 715; edited by D. Flower

The Strain on Civilian Manpower Worsens

Towards the end of 1942 the full effect of depletion of civilian manpower was being felt. This had been by far the most difficult year for many industries. Some had borne the strain well for a time, but were now beginning to reach the limit of their ability to produce with their reduced staffs. Meantime, demands for goods and services were still increasing.

Writing to Mr Churchill in November 1942, ¹ Mr Fraser stressed that the limit of New Zealand's manpower resources had been reached, and that it was not possible to build up the establishments which the Chiefs of Staff regarded as a minimum for the defence of the Dominion. Mr Fraser went on: 'The question of production of food and other supplies, both for the **United Kingdom and the **South Pacific Area**, also arises. The United States Forces are becoming increasingly dependent on New Zealand's resources for those essential supplies and services which we must endeavour to provide under the Mutual Aid Agreement.'**

From 72,000, in August 1943, the strength of the home forces fell to 66,000 in November, but by this time overseas forces had reached their peak figure of over 70,000. The total serving in New Zealand and overseas had now fallen from the September 1942 level of 157,000 to a little over 136,000.

The reduction in armed forces strengths and the return of men to civilian work was not nearly fast enough for industry; and the continual combing out of industry during 1943, to find fit men to reinforce the overseas divisions, was becoming a source of acute annoyance. The presence of a still large home army, while industry badly needed labour, also gave rise to criticism. In January 1943 one daily ² wrote: 'It is doubtful if it is wise to call up men who are filling important, and essential, civilian jobs that they may be sent into camp and undertake a

routine of eating and marching day in and day out....' In March Mr Holland said in Parliament, ³

¹ Cable No. 176, Prime Minister of New Zealand to Prime Minister of **United Kingdom**, 19 November 1942. *Documents*, Vol. II.

² *Southland Daily News*, 26 January 1943.

³ *NZPD*, Vol. 262, p. 66, 3 March 1943

'I have said before, and I repeat, that there is no justification for the number of men who are under arms in this country....' He went on to quote the President of the New Zealand Manufacturers' Federation as saying: 'The manpower problem is becoming increasingly difficult as more and more demands are being made for production. These difficulties would be more easily borne by manufacturers and farmers if it were not for the knowledge that there were literally thousands of men in the Army in New Zealand who were simply wasting their time.'

The following month Mr Fraser warned Mr Churchill, ¹ '... it will not be possible for New Zealand to maintain divisions both in the **Mediterranean** and in the **Pacific** beyond the end of the present year.... Despite every effort to comb out industry, sufficient key men must be retained to maintain essential production, and especially primary production, at a time when the target programme is being set at increasingly higher levels and when there is, moreover, every prospect that we will be supplying our own men actively engaged in the **Pacific** area, while demands for foodstuffs and services of all kinds under reciprocal aid are continually increasing.'

In an endeavour to plug gaps in essential industries, direction of civilian labour was intensified in 1943; but labour shortages continued to slow up production in many industries. With the faster tempo of allied military action, the need for further increases in production, especially

food production, was becoming more pressing.

The strength of the army in the **Pacific** reached its peak in September 1943.² By this time the home forces were down to 72,000, but in the opinion of many they were unnecessarily large, so long after the real threat of invasion had passed.

In November 1943, when the home forces numbered 66,000, the Council of the Manufacturers' Federation decided to take up the question of manpower 'strongly' with the Government. It said:³ 'In the meantime, certain detailed information regarding losses in production in factories through shortage of manpower, and information which is becoming increasingly available regarding the wastage of manpower and womanpower in the armed services, is being collected from the district associations and other affiliated organisations.'

¹ Cable No. 222, Prime Minister of New Zealand to Prime Minister of **United Kingdom**, 29 April 1943. *Documents*, Vol. II.

² At this stage 3 Division was embarking on the first of its three Island actions, on **Vella Lavella**. See **Oliver A. Gillespie**, *The Pacific*,

The Manpower Dilemma

The urgency of the need to reduce the strain on civilian manpower was matched only by the Government's reluctance to withdraw from either of the overseas theatres in which New Zealand forces were engaged. To maintain a division on both fronts, and to keep up food production, was obviously impossible, but, while the production of food was coming to be seen as New Zealand's main war contribution, neither Churchill nor Roosevelt could be induced to condone the withdrawal of New Zealand forces. Churchill wanted 2 Division to take its place at the fall of Rome ¹ and, with him, many in New Zealand looked forward to this fitting climax to the achievements of the Division. Roosevelt wanted 3 Division to remain active in the Pacific until the fall of Tokyo, ² and here again there was a strong body of New Zealand opinion to advocate that New Zealand should take its proper place in Pacific affairs.

To place the flow of food in jeopardy was out of the question. The decision had to be made between the withdrawal of 2 Division or 3 Division. New Zealand had to make the decision; her allies would not make it for her. As with all difficult decisions, it tended to be deferred.

By the end of 1943 the problem of staffing for the peak of the 1943–44 food production season had become critical. On 4 December the Deputy Prime Minister wrote to Admiral Halsey: ³

‘From a survey of the manpower situation undertaken by War Cabinet it is apparent that New Zealand is faced with a most serious crisis, particularly in regard to the production of foodstuffs. Accordingly every effort is being made to effect the temporary release of any further men from the Armed Services, and it is most earnestly desired that men who are to be relieved of garrison duties

in the **Pacific** should be brought back to New Zealand, if possible before the end of the year. Indeed, unless these men in the **Pacific** can be made available for employment in the freezing works before the peak of the season in January, it will not be possible to fulfil the commitments in respect of meat, either for the **United States Forces in the Pacific** or for the urgent needs of the **United Kingdom.**'

¹ The Hon. W. Nash (**London**) to Prime Minister of New Zealand, 9 February 1944. *Documents*, Vol. II, p. 337.

² New Zealand Minister (**Washington**) to Prime Minister of New Zealand, 14 January 1944. *Documents*, Vol. II, p. 329.

³ *Documents*, Vol. III, p. 430.

The number of men serving with the Army in the **Pacific** was reduced from 20,900 in December 1943 to 18,600 in March 1944, mostly by withdrawals from **Fiji, Tonga** and Norfolk Islands. However, Government efforts to tide over the 1943–44 season were concentrated on reductions in the numbers in the armed services in New Zealand, use of services personnel under the Army and Air Force harvesting scheme, and recruitment of holiday workers.

Between November 1943 and February 1944, the strength of the home forces was reduced by 9000 men. The Army and Air Force under the harvesting scheme supplied 6900 men on a temporary basis.

A statement by the Minister of Industrial Manpower on the 1943–44 season gives some indication of the expedients to which the Government was driven to tide over the seasonal peak: ¹

'The services of almost ten thousand teachers, students, and schoolchildren had been used by the **National Service Department** during the recent summer vacation period to assist in various

forms of nationally urgent work, stated the Minister of Industrial Manpower, Mr McLagan, yesterday. In paying a tribute to these people, and to the University authorities and educational bodies for their assistance, the Minister said it looked as though New Zealand would have obligations just as great, if not greater, in respect of seasonal industries this coming season, and it might be necessary to seek similar assistance again.

“The response from all concerned last season was most willing,” the Minister said. “From the University and Training Colleges we brought under direction 2099 men students and 1720 women. In addition, 212 men teachers and 558 women teachers were called up to help. These 4589 persons represented a large and willing labour force whose availability proved to be of the greatest moment in meeting our seasonal requirements. These people worked under the direction of the Manpower Officers, and as a whole they appear to have been reasonably satisfied with their conditions. There have, I am aware, been a few cases where persons were less fortunately placed and I am having any such cases fully investigated, so that their occurrence can be minimised should a similar necessity arise at the end of this year”.

¹ *Dominion*, 4 May 1944. Important seasonal peaks in New Zealand are from January to March for harvesting and fruit picking, from December to May for livestock slaughtering, and from August to May for dairy factories. Usual vacations are from November to February inclusive for universities and from mid-December to the beginning of February in schools.

‘The Minister said the main classes of industry to which the holiday workers went were as follows:

	<i>Males</i>	<i>Females</i>	<i>Total</i>
Farming	437	456	893
Vegetable growing	129	513	642
Other primary industry	92	171	263

Freezing works	388	1	389
Wool stores	335	1	336
Hospitals (apart from Medical Students)	—	146	146
Medical work (Medical Students)	241	38	279
Domestic work (on farms, etc.)	—	270	270
Dairy factories	97	—	97
Government clerical	13	20	33
Engineering	109	42	151
Manufacturing industries	120	129	249
Commerce	38	42	80

“We had also,” said Mr McLagan, “a very large army of most willing younger workers, who volunteered from the post-primary schools. Altogether we had the voluntary assistance of 3271 schoolboys and 1958 schoolgirls. This is apart from many who assisted in various ways without coming under the notice of the Department. The cumulative total of the work of these young people in the fields and vegetable gardens, if it could be measured into thousands of tons of foodstuff which they handled, would be amazingly great. I wish to express my thanks to all these for the fine way in which they helped us in a national service of the utmost urgency.”

A summary of the manpower problem of the time was available to Cabinet in a survey which was later conveyed to Mr Roosevelt by Mr Nash. His letter read, in part: ¹

‘The position in New Zealand requires some clarification in order to determine the most effective method by which we can use our manpower to help the war effort.

‘Our position at the time of the most recent full analysis was as follows:

Total number of males between the ages of 14–64	600,000
Of this total those engaged either full time with war and defence forces—in munition and war equipment	560,000

manufacture—essential work, or minor, less essential work numbered

Total number of males between Service ages (18–40)	330,000
Of this total, at middle of last year those serving full time in Army, Navy or Air Services (exclusive of casualties) numbered	149,000
Of this 149,000, the forces overseas totalled	70,000

¹ *Documents*, Vol. II, No. 362, 24 January 1944.

‘The large proportion engaged in full-time war services is causing a reduction in our production of primary products. When I left New Zealand, for instance, in December last it was not possible to obtain full production in our meat freezing works (corresponding to your meat packing-houses) owing to shortage of manpower. Our butter, cheese and meat production from the farms is also declining owing to shortage of manpower (and of fertiliser, which is in very short supply).

‘We are anxious to use our full resources to finish the war at the earliest possible date, and also to meet all our commitments overseas, but we have to determine now where our manpower can best be used.’

A Change in Manpower Priorities

Since September 1942, the home forces had been required to give up manpower for return to the civilian labour force or to replenish the overseas divisions. By January 1944 they had released 50,000 men. It was not enough. This month brought the warning of another priority change. Manpower needs for production were now to be ranked higher than those of 3 Division in the **Pacific. Reluctantly the decision was made to replace a portion of the manpower lost to food production and other essential industries, by bringing back from the **Pacific** men who volunteered for some of the most essential civilian work.**

Mr Fraser wrote to Mr Churchill:

‘The whole question of our overseas commitments has now to be reviewed, in view of the fact that New Zealand has reached the end of its resources of manpower not engaged in essential industry and fit and available for service in the armed forces.’¹

Under extreme difficulty the Government had succeeded in maintaining two divisions overseas until early in 1944. Even now, when forced to acknowledge the impracticability of keeping both at full strength, it would not take the decision to withdraw either. The force in **Italy was to be kept up to strength and higher priority was to be given to essential production. The Pacific force would have to be reduced in numbers. If possible, it would be kept strong enough to be an effective fighting formation.**

The main **Pacific force, 3 Division, in **New Caledonia** and the **Solomons**, which had its highest strength of nearly 18,000 in December 1943, was in fact kept above 17,000 until March 1944, but then a more momentous decision had to be made.**

¹ *Documents*, Vol. II, No. 360, 19 January 1944.

Food Crisis in Britain

British food supplies were getting critically low. New Zealand dairy production in the 1943–44 season was at its lowest for over a decade, and meat production while higher than before the war was well below the preceding four wartime seasons.

United States forces in the **Pacific were taking an increasing proportion of exportable surpluses, and exports of meat to the **United Kingdom** fell lower than for any year since 1931.**

Britain had repeatedly stressed the need for extra food from New Zealand, and the British Ministry of Food viewpoint, that New Zealand

should concentrate on food production as her war effort rather than on providing armed forces, was gaining ground. Butter had been rationed in New Zealand from October 1943, in order to make more available for export, but greater attention to production was also imperative, as the New Zealand Cabinet had realised when it made its decision, in January 1944, to bring back selected workers from the [Pacific](#).

In the early part of 1944, the British food problem worsened. The weekly cheese ration had been successively reduced from 8 oz a head to 6 oz to 4 oz to 3 oz, and was finally in danger of being reduced to 2 oz. There was, for a time, a plan to suspend temporarily the butter ration of 2 oz, failing the arrival of further supplies.

Confirming a February 1944 discussion with Mr Nash, the British Minister of Food, Mr Llewelin, wrote: ¹

‘... I would like to give you a few figures illustrating the vital importance of New Zealand's production of meat and dairy produce to the people of this country and to our Armed Forces. If New Zealand's production declines below the present level I do not see how we can possibly maintain our present standards of feeding in this country. Indeed I cannot be certain that we shall achieve this even if there is no further decline in the supplies you can send us and I can see no hope of making good our prospective deficiencies from any other source. It is the considered view of Cabinet here that the general standard of our civilian rations is not capable of any reduction if we are to keep the nation fighting and production fit. Therefore if some substantial reduction of the essential supplies which we get from your country has to take place our Service rations will almost certainly have to take a share in any cuts that have to be made. The following figures show the extent to which we depend on New Zealand for meat, butter, cheese.

‘ *Butter* To maintain our present ration of two ounces per week we need to import in 1944 160,000 tons of butter. Of this quantity we are looking to New Zealand to provide 96,000 tons. For practically

all the remainder we look to **Australia**.

‘ Cheese To maintain our three ounce ration we need 224,000 tons of imports and we are looking to New Zealand to provide 85,000 tons for this country and for our Armed Forces overseas. As we shall not get more than 80,000 tons of cheese from the U.S.A. in 1944, we shall probably have to reduce cheese ration for a number of weeks and replace this with canned meats from our protein reserves.

‘ Meat Although we are not so dependent on New Zealand to the same overwhelming extent for the maintenance of the 1s. 2d. meat ration, we are looking to New Zealand for 210,000 tons of frozen meat in 1944.

‘We must either get this quantity from New Zealand or we must look to the U.S.A. to supply us with whatever deficiencies in our liftings from New Zealand is caused by the supply of New Zealand meat to the U.S.A. forces in the South Pacific.

‘New Zealand has been able to send us substantially greater quantities of these foods in the past. For example, in the four years 1934–38 our average imports of butter from New Zealand were 136,000 tons and of cheese 89,000 tons. In the year 1940–41 you actually supplied us with 107,000 tons of cheese. In the case of meat our average imports from 1934–38 were 260,000 tons, and in the first year of the war 285,000 tons.

‘The particular foods which New Zealand sends us are those of which we are now in most need. It is in livestock products that we suffered our most serious reductions over pre-war consumption levels, and my scientific advisers tell me that our consumption of animal protein foods is now as low as it can safely be.’

¹ Letter copied in cable Nash to Fraser, 23 February 1944. Copy of cable in War History narrative No. 50, p. 12.

Pacific Division Becomes a Token Force

Faced with these urgent British needs and with increasing American requisitions for food and services for her forces in the **Pacific**; finding, moreover, increasing difficulty in providing a minimum flow of manufactured goods to fill her own most pressing civilian requirements, New Zealand finally, in March 1944, decided to divert 11,000 men from the **Pacific** division, reducing it to a token force. The division in **Europe** was to be kept up to strength, and it was hoped, later, to have an effective force in the **Pacific**.

As an additional measure, to step up food for **Britain**, meat rationing was introduced in the same month.

It fell to the lot of General Barrowclough, commanding 3 Division in the **Pacific**, to pass on **War Cabinet**'s decision. In a special message to his division on 7 April, he said: ¹

‘No modern war can be won by the fighting services alone. The production of warlike equipment and stores and primary products (including food) is as essential to the war effort as is the work of the soldier in the front line. By virtue of her geographical position on Allied lines of communication and because of her natural resources, New Zealand has been requested by the highest Allied authorities and as part of the general war strategy, to undertake a greatly increased programme for the supply of food and other primary products. This she cannot do without some reduction in the numbers of her armed forces. It has been agreed that she ought to recall from active service certain categories of men whose work in primary and essential industries at home is likely to be of greater assistance to the war effort than is their continued service with the colours.’

¹ Quoted by **Gillespie** in *The Pacific* at p. 198.

Manpower Needs for Industry

The scheme for diversion of men from the **Pacific** provided for the return to New Zealand by October 1944 of 11,000 men. Seven thousand were to be in the country by 1 July, the remainder to return at the rate of 2000 a month. The men were to be those who volunteered to work in specified essential industries. The **National Service Department** estimated the minimum needs of industry at 17,500 men, to be placed before the end of 1944, 12,600 for farming and related industries, 4900 for other essential industries.

Estimates for farming and related industries comprised:

Dairying and pig production	7,000
Meat and wool	1,000
Mixed cropping and stock	500
Vegetables and fruit	300
Butter and cheese factories	250
Freezing works	1,500
Food processing plants	100
Rural housing and ancillary occupations	1,950
	—
Total	12,600

For other essential industries the estimated needs were:

Sawmilling	800
Coal mines	300
Hydro-electric works	800
Railways	1,000
Housing	2,000
	—
Total	4,900

First priority was the return of 7000 men for dairying. They would be needed by July to start the 1944–45 season.

Farm Manpower Needs Overestimated

The estimate of minimum labour requirements for farming turned out to be far too high. Farmers and Primary Production Councils had overstated shortages, and there was no proper picture of labour trends on farms against which their estimates could be checked. Mechanisation and new methods on farms had reduced labour needs far more than was realised. Instead of 7000 men, expected to be needed by July for dairying alone, only 4286 men could be placed on all farms by November. The experiences of the [National Employment Service](#) in trying to place men released from 3 Division are outlined in

This unfortunate experience highlights the need for good background statistics in making the type of judgment which was required of the **National Employment Service. For reasons which no doubt seemed adequate at the time, the 1931 and the 1941 population censuses had been abandoned. The result, however, was that the only comprehensive picture of labour force distribution after 1926 available to the **National Employment Service** was that given by the 1936 census. There was therefore no up-to-date picture of recent trends and, as a result, a good deal of wartime manpower policy lacked a firm factual background. There can be no substitute for a background of information of this sort, when important decisions have to be made. The extent of public clamour at the time does not provide any reliable estimate of the size of a problem, as the **National Employment Service** found.**

In Chart 77, successive census results are compared, the use of male labour in each major industry group being equated to 1000 in 1936. The chart shows clearly the difference in growth of labour requirements in farming as compared with other industry groups. Between 1936 and 1951, the use of male labour on farms declined 21 per cent, whereas the use of male labour in all industries increased 13 per cent. It is easy to see that inadequate warning of this strikingly different trend in farming employment was likely to lead to wrong wartime judgments.

Labour force changes up to 1945 are confused by the fact that 45,400 persons were still serving overseas at the time of the 1945 population census. ² However, the wartime boost to the growth of manufacturing industries shows up clearly in the chart. Between 1936 and 1945 the numbers engaged in manufacturing increased 15 per cent; those in farming decreased 22 per cent. The building and construction industry, in spite of the impetus of defence construction in 1942–43 and 1943–44, had 8 per cent fewer workers in 1945 than in 1936, but was to make a spectacular spurt after the war. Of the industry groups with a long-term upward trend, distribution and finance was most seriously

affected by the war. It had 20 per cent less labour in 1945 than in 1936.

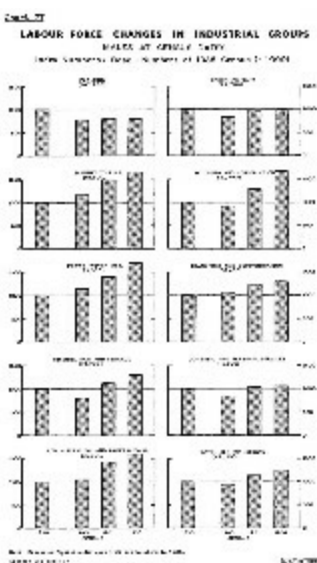


Chart 77

**LABOUR FORCE CHANGES IN INDUSTRIAL GROUPS
MALES AT CENSUS DATES**

Index Numbers: Base - Numbers at 1936 Census (= 1000)

¹ pp. 193–4.

² Including about 700 women.

Public Criticism of the Size of the Home Forces

While 3 Division was being reduced, there had been growing agitation in New Zealand about the strength of the armed forces held in New Zealand when the Japanese were on the defensive. A committee of civilians, the **Defence Forces Personnel Committee**, was set up in May 1944 to investigate the manpower situation in the armed forces. Over the next year the committee visited and reported on military establishments in New Zealand and the **Pacific**.

Action was too slow for some critics, and, on 15 July 1944, the *New Zealand Herald* launched a full-scale attack on the **RNZAF**. The first of thirty paragraphs read: ¹

‘The time has come for New Zealand to be satisfied whether its present Air Force establishment is necessary. It should be told why the colossus which was justified in 1942–43 should retain its stature in 1944 when so much of the excuse for its size has apparently disappeared as rapidly as the war in the South Pacific has receded from this area.’

It has to be remembered that, as 3 Division was reduced, the Air Force and the Navy became New Zealand's only sizable representation in the Pacific theatre, and that a considerable organisation was necessary in New Zealand to keep the RNZAF in the Pacific. Moreover, the RNZAF reached its peak wartime strength over a year later than did the Army. However, there seems justification for the contention that some New Zealand stations kept too many men for too long.

The strengths of the forces in New Zealand were, compared with a peak strength of 107,000 in September 1942, 72,500 in August 1943, 56,900 in February 1944, 54,900 in August 1944 and 41,500 in February 1945. The RNZAF had, in New Zealand, 29,700 in August 1943, 28,500 in February 1944, 27,000 in August 1944 and 21,500 in February 1945. Its peak strength in New Zealand had been 30,600 in September 1943, but it did not reach its peak strength in the Pacific theatre until March 1945, when just under 8000 were there.

¹ The full article and a discussion of it is in War History narrative, ‘The Manpower Situation in the RNZAF, 1944–45’.

Squadron Leader Ross writes: ¹

‘On some stations and in some trades, manpower was not used to the best advantage and there was room for improvement; but in general the position was not nearly as bad as the public was led to believe.

‘A certain discrepancy between available manpower and

immediate needs at the time was inevitable. The RNZAF had been expanding its **Pacific** strength as rapidly as possible to meet its commitments, and was in the process of levelling off. There was necessarily a slight time-lag between the achievement of full strength and a review of that strength to see if it was too great or too small for the job in hand.'

¹ Squadron Leader J. M. S. Ross, *Royal New Zealand Air Force*, p. 290.

The End of the Pacific Division

In September 1944 the Government bowed to the impossibility of maintaining all its manpower commitments. It decided to leave 2 Division in **Europe** and to use the balance of 3 Division to reinforce it. ² This was a disappointing ending for the **Pacific** division; the only consolation was that New Zealand would continue to be represented in the **Pacific** by her Navy and Air Force.

Actually, by the end of August, the Army had only 3400 men left in the **Pacific** theatre, 2600 of them in **New Caledonia** and the **Solomons**. ³

Gillespie says, ⁴ 'A total of 17,134 all ranks returned from the **Pacific**, and by the beginning of September were scattered far and wide. Of these, industry absorbed 12,069; another 3229 had embarked to join 2 Division; 38 were on their way to the **United Kingdom**; 830 were in camp with 16th Reinforcements, and 968 were held on home service.'

At the end of November 1944, 9100 men from 3 Division were held under direction in the following industries: ⁵

Farming	4,286
Building and construction	1,386
Meat freezing works	478
Logging and sawmilling	474
Railways	811

Coal mining	143
Butter and cheese factories	473
Other approved industries	601
Other industries	448
	—
Total	9,100

Meantime industry was repeatedly being combed through to find fit men suitable for armed service who could be taken into the forces without hampering essential production.

² This was eight months after the decision had been made to reduce the strength of 3 Division. See also p. 489.

³ Parliamentary Paper H-19 B, 1948, p. 10.

⁴ *The Pacific*, p. 202.

⁵ H-11 A, Report of the National Service Department, 1946.

Labour Shortages in the Last Year of War

Between peak mobilisation in about September 1942 and the end of 1944, armed forces strengths were reduced by 59,000. The numbers serving in New Zealand had been reduced by 62,000, but 3000 more were serving overseas. In Europe, 2 Division was in need of reinforcements and replacements for long-service men, whom the Government had undertaken to release.

In late 1944 and early 1945, the Government was hard put to find sufficient men for the Division in Europe, without impairing food and other essential production. Promised reinforcements were delayed. The Prime Minister wrote in explanation to General Freyberg, ¹ ‘... owing to their employment in the production of essential foodstuffs, which is now at the height of the season, 3rd Division personnel temporarily released

to industry have not been returned to the Army on the dates expected. Difficulty is also being experienced in obtaining the release of men held on appeal, the majority of whom are also employed in primary industries.'

In January 1945, the Director of National Service said,² 'The general manpower situation as 1945 commences is more difficult than it has been at any stage of the war.' However, his recommendation that New Zealand should still further reduce her overseas commitments was not accepted. At this stage, apart from those serving in New Zealand, the main armed forces strengths were 36,000 in the Army in the European theatre, where replacements and reinforcements were urgently needed, 8000 with the **RNZAF** in the **Pacific** and 10,000 in the Navy.

The only remaining reserves from which new military recruits could be obtained were men held in essential industry. Cabinet decided, in February, that a further comb out of industry was to be made and, except in sawmilling and coal mining, 20 per cent of the appeals reviewed were to be dismissed without reservation. The effect of this drastic instruction was to bring about an increase of 3000 men by May 1945, of whom most went overseas.

There was, however, increasing restiveness in industry about manpower policy, especially in view of the need for extra food production and the banking up of long-deferred civilian demands for many commodities.

¹ *Documents*, Vol. II, No. 412.

² Writing to Minister of National Service, 25 January 1945.

By the end of March 1945, a peak of 255,000 persons was employed in undertakings covered by declarations of essentiality. Industry was still seriously short of labour. Unemployment was down to some scant 200 marginal or semi-employable workers, and the **National Employment**

Service had records of 6600 vacancies for males and 4800 for females.

Between peak mobilisation in September 1942 and VE Day, on 8 May 1945, armed forces strengths were reduced from 157,000 to just below 100,000 men and women. Of these latter 58,000 were serving overseas and 42,000 in New Zealand. ¹ By VJ Day, on 15 August 1945, a further 10,000 men and women had been released from the forces, lowering the total strength to around 89,000.

The end of the war in **Europe** brought increasing pressure for relaxation of manpower controls on the one hand and, on the other, demands for more men for industry. All declarations of essentiality were reviewed, and at the end of June the first revocations freed some industries. At the same time limited classes of people were exempted from manpower controls. The end of the war in the **Pacific** was followed quickly by further releases of workers and industries from control. The Minister of Labour, Mr McLagan, announced on 18 August that most declarations of essentiality would be removed by the end of the year. In the meantime direction of labour would be restricted to the highest priority industries, and the only classes of workers subject to direction would be men aged 18 and under 45 who had not had overseas service, and unmarried women aged 18 and under 30. The last remaining group of declarations of essentiality was revoked in June 1946, and the last group of workers was freed from liability to direction in the same month.

There were still 56,000 men and women serving in the forces in November 1945, but demobilisation at this stage was proceeding rapidly and, by February 1946, total strengths had fallen to 26,500. However, had all these people been released too, it would not have seen the end of the civilian labour shortage. The employment situation had been much more lastingly changed than most people realised at the time. ²

¹ 2 Division, in **Europe**, was kept at close to full strength until June 1945.

2 See also

NOTEWORTHY EVENTS IN THE LAST THREE YEARS OF WAR

<i>Year</i>	<i>Overseas</i>	<i>Military and Political Events in New Zealand</i>	<i>Economic Events in New Zealand</i>
1942 (December)			<p>Comprehensive economic stabilisation scheme started in December.</p> <p>1942–43 is peak year for defence construction.</p> <p>Railway travel restrictions in North Island—July 1942 to January 1943.</p> <p>Full effect of depletion of civilian labour force about end of year.</p>
1943	<p>8th Army enters Tripoli in January.</p> <p>German forces surrender at Stalingrad in February—turning point of war in Russia.</p> <p>Battle of Bismarck Sea in March.</p> <p>U-boat losses averaging one a day by May.</p> <p>Resistance in Tunisia ends in May.</p> <p>Allied shipping position starts to improve in</p>	<p>Growing criticism of the size of the home army.</p> <p>High imports of defence materials.</p> <p>First satisfactory</p>	<p>Direction of civilian labour intensified.</p> <p>Lowest war year for marriage and birth-rates.</p> <p>Record imports from United States in 1943 (mostly Lend-Lease).</p> <p>Electric power shortages.</p> <p>Farm stabilisation accounts established in June.</p>

second half of year in this respect.
year.

New Zealand
Army in the
Pacific at peak
strength in
September.

Allied invasion
of **Italy** in
September—
Italy
surrenders.

UNRRA
established in
November.

Butter rationing starts
in October.

Harvesting for 1943–
44 requires
exceptional measures
to find sufficient
workers.

Acceleration in open-
cast coal mining.

Tribunal set up in
February to
investigate wages and
conditions for
railwaymen.

British food
position
worsens.

Request in
February for
urgent increase
in New Zealand
food
production.

Decision in March to
divert 11,000 men
from **Pacific** division,
mostly to the labour
force in New
Zealand.

Meat rationing starts
in March.

Railway coal stocks
low. Travel
restrictions applied,
January to September.
Annual Holidays Act
passed in April.

**Defence Forces
Personnel Committee**
set up in May,
following further
criticism of the size
of the home forces.

**Organisation for
National Development**
set up in May.

1944

D Day. Landing in France, 6 June.

First Super-Fortress raid on Japan in June.

Most United States forces had left by the middle of the year.

Decision in September to disband Pacific division.

Proposals for establishment of the United Nations in October.

Americans invade Philippines in October.

Super-Fortress raid on Tokyo in November.

Protest at Parliamentary salary increase—strikes in January.

Slightly less rigid rules for Court of Arbitration in June.

Dairy production in 1943–44 season lowest for over a decade.

Long-term contracts for meat and dairy produce signed with the United Kingdom in July. Lump-sum payments start.

Closing of United States base at Auckland in October.

Maximum New Zealand food supplied to United States forces in 1944.

Increase in Parliamentary salaries in December.

Manpower position, as 1945 commenced, most difficult in the war.

Electric power shortages tending to restrict industrial expansion.

Railways Tribunal grants back-dated wage increase in February. Public Service wages follow.

New regulations for

1945

Arbitration Court in February bring to an end period of rigid stabilisation.

Drastic comb-out of industry for further men for armed forces.

Standard wage pronouncement in March increases wages by 3 ½d. an hour.

United States forces invade Okinawa in April.

VE Day. 8 May.

United Nations Charter signed in June.

VJ Day. 15 August.

First revocations of declarations of essentiality in June.

WAR ECONOMY

PEAK MOBILISATION

Peak Mobilisation

WHEN the armed forces reached their peak strength, in September 1942, the civilian labour force had been depleted by well over a fifth. The services had taken mostly younger, fitter men; for part of 1942, over half of all males aged between 18 and 45 were serving.

The threat of Japanese invasion had seemed most ominous in the first nine months of 1942. Between November 1941 and September 1942, the numbers serving in New Zealand increased from 36,000 to 107,000. With some 50,000 men then serving overseas, there were at the peak mobilisation point 157,000 persons in the forces, out of a labour force estimated at the outbreak of war at 700,000 men and women.

But the limit had been reached. It was difficult enough to transfer so many people out of industry; quite impossible to keep the economy working efficiently without them. What had been achieved under stress of the threat of Japanese invasion could not be sustained for more than a few months.

From the middle of 1942 the increasing flow of American forces into the **Pacific** had stepped up the demands on New Zealand for food and services; but the depleted civilian work force was hard pressed even to maintain existing supplies.

In July 1942 the Director of National Service, writing to his Minister, had suggested that New Zealand was rapidly approaching the limit of its resources. His Department estimated that, by then, armed service recruitments had taken 14 per cent of all the male workers in primary industries, 25 per cent of those in secondary industries, and 37 per cent of those in other industries. He recommended that no further

men be balloted for the armed services.

The Government, however, faced with commitments to maintain overseas forces on two fronts and still seized of the need to strengthen the home army, decided to continue with the ballots.

It was already apparent that the demands of the armed services for more men could no longer be met without curtailing food production and essential services.

There was some pressure at this stage for a 'total war effort',¹ with drastic reorganisation of industry to provide for the maximum use of every available man and woman in the interests of the war effort. Suggestions included a minimum working week of 48 hours for manual work, and 44 hours for shops and clerical work, the elimination of non-essential services and commodities, and the substitution of womanpower for manpower to the furthest possible extent. There would be rationalisation of industry based on the standardisation and simplification of products, pooling of plant and transport, and zoning of distribution. Of the proposal, the Director of National Service wrote, '... the Forces may be able to be supplied with the manpower they require, if the economy of the country as a whole is placed on a total war basis'.

In August 1942 an inter-departmental committee, the **War Planning and Manpower Committee**, started detailed work to this end. It is by no means certain that the proposal would have been adopted had a detailed scheme emerged. The Government had, so far, avoided major reversals of its labour legislation, except as required in essential industries. Wood writes:²

'Administrative difficulties would have been immense, and unless the community had been confronted with an immediate threat of invasion or defeat, discontent at such drastic measures might well have been keen enough to cause that economic dislocation which they had been designed to avoid.'

In the event, the **Pacific** war situation improved later in the year.

The Committee ceased to function and, though the demand for scarce manpower was still increasing, no more was heard of the 'total war effort'.

We have seen, in

Chapter 5, how men had been drawn out of the unemployment pool and from subsidised work, as wartime pressures for extra manpower increased. Of 19,000 men on unemployment benefit or in subsidised employment in September 1939, 13,000 remained in December 1940, and 6000 in December 1941. The year of peak mobilisation reduced this figure, by December 1942, to the then unbelievably low figure of 2000.

Even with the absorption of this reserve pool of labour, together with the wartime entry of some 36,000 extra women and the return of many older people into the labour force, the supply of labour to meet the needs of wartime production remained pitifully

¹ See also p. 456.

² Wood, p. 248.

inadequate. ¹ The mounting pressure on labour in industry is reflected in the records of overtime worked in factories. From a then high figure of 3.6 million hours in 1938–39, overtime increased steadily to over 6 million hours in 1940–41, then to nearly 9 million hours in 1941–42. In the next year it soared to over 14 million hours, and, in spite of reductions in armed forces strengths after September 1942, it was to be even higher for the rest of the war.

As late as mid-October 1942, the army was still calling for more men to serve in New Zealand. A summary presented to a secret session of Parliament estimated overall needs for the services at this time at 30,000 more people than at the peak mobilisation point.

Without further mobilisation of manpower and much more intensive use of the remaining industrial labour force, it was impossible to meet all demands.

¹ See also Table 19.

WAR ECONOMY

TENSION REDUCES IN THE PACIFIC

Tension Reduces in the Pacific

The Battle of Midway on 4 June 1942, though this may not have been realised at the time, had been a turning point of the war in the **Pacific**. In early August 1942, **United States** forces had landed at **Guadalcanal** and **Tulagi**. Later in the same month the Japanese attack had been turned back in a large-scale sea battle off the East Solomons. On 30 November 1942 the naval battle off **Guadalcanal** stopped the southward drive of the Japanese. Of **Guadalcanal**, Admiral Halsey said: ²

‘... This battle was a decisive American victory by any standard. It was also the third great turning point in the war in the **Pacific**. Midway stopped the Japanese advance in the Central Pacific; Coral Sea stopped it in the South West Pacific; **Guadalcanal** stopped it in the South Pacific.... If our ships and planes had been routed in this battle, if we had lost it, our troops on **Guadalcanal** would have been trapped as were our troops on Bataan. We could not have reinforced them or relieved them.... Unobstructed, the enemy would have driven south, cut our supply line to New Zealand and **Australia** and enveloped them.’

Much bitter fighting still remained, but **War Cabinet**'s assessment of priorities changed and the home army was allowed to decline.

In November 1942 there were 104,000 persons serving in New Zealand, 3000 fewer than at peak mobilisation. Between November 1942 and August 1943 their numbers decreased by 31,000. However, while the home forces were decreasing, there was an increasing outflow of men for overseas service. The 3rd Division moved into the **Pacific** in the last months of 1942, and reached a strength of 12,600 in January 1943, which was raised to 17,700 by September and kept at about this level for the following six months. The number serving in all areas did not fall

below 140,000 until after August 1943.

² **As quoted in *The War, 1939–1945*, p. 715; edited by D. Flower and J. Reeves.**

WAR ECONOMY

THE STRAIN ON CIVILIAN MANPOWER WORSENS

The Strain on Civilian Manpower Worsens

Towards the end of 1942 the full effect of depletion of civilian manpower was being felt. This had been by far the most difficult year for many industries. Some had borne the strain well for a time, but were now beginning to reach the limit of their ability to produce with their reduced staffs. Meantime, demands for goods and services were still increasing.

Writing to Mr Churchill in November 1942, ¹ Mr Fraser stressed that the limit of New Zealand's manpower resources had been reached, and that it was not possible to build up the establishments which the Chiefs of Staff regarded as a minimum for the defence of the Dominion. Mr Fraser went on: 'The question of production of food and other supplies, both for the **United Kingdom and the **South Pacific Area**, also arises. The United States Forces are becoming increasingly dependent on New Zealand's resources for those essential supplies and services which we must endeavour to provide under the Mutual Aid Agreement.'**

From 72,000, in August 1943, the strength of the home forces fell to 66,000 in November, but by this time overseas forces had reached their peak figure of over 70,000. The total serving in New Zealand and overseas had now fallen from the September 1942 level of 157,000 to a little over 136,000.

The reduction in armed forces strengths and the return of men to civilian work was not nearly fast enough for industry; and the continual coming out of industry during 1943, to find fit men to reinforce the overseas divisions, was becoming a source of acute annoyance. The presence of a still large home army, while industry badly needed labour, also gave rise to criticism. In January 1943 one daily ² wrote: 'It is doubtful if it is wise to call up men who are filling important, and

essential, civilian jobs that they may be sent into camp and undertake a routine of eating and marching day in and day out....' In March Mr Holland said in Parliament, ³

¹ Cable No. 176, Prime Minister of New Zealand to Prime Minister of **United Kingdom**, 19 November 1942. *Documents*, Vol. II.

² *Southland Daily News*, 26 January 1943.

³ *NZPD*, Vol. 262, p. 66, 3 March 1943

'I have said before, and I repeat, that there is no justification for the number of men who are under arms in this country....' He went on to quote the President of the New Zealand Manufacturers' Federation as saying: 'The manpower problem is becoming increasingly difficult as more and more demands are being made for production. These difficulties would be more easily borne by manufacturers and farmers if it were not for the knowledge that there were literally thousands of men in the Army in New Zealand who were simply wasting their time.'

The following month Mr Fraser warned Mr Churchill, ¹ '... it will not be possible for New Zealand to maintain divisions both in the **Mediterranean** and in the **Pacific** beyond the end of the present year.... Despite every effort to comb out industry, sufficient key men must be retained to maintain essential production, and especially primary production, at a time when the target programme is being set at increasingly higher levels and when there is, moreover, every prospect that we will be supplying our own men actively engaged in the **Pacific** area, while demands for foodstuffs and services of all kinds under reciprocal aid are continually increasing.'

In an endeavour to plug gaps in essential industries, direction of civilian labour was intensified in 1943; but labour shortages continued to slow up production in many industries. With the faster tempo of allied

military action, the need for further increases in production, especially food production, was becoming more pressing.

The strength of the army in the **Pacific** reached its peak in September 1943.² By this time the home forces were down to 72,000, but in the opinion of many they were unnecessarily large, so long after the real threat of invasion had passed.

In November 1943, when the home forces numbered 66,000, the Council of the Manufacturers' Federation decided to take up the question of manpower 'strongly' with the Government. It said:³ 'In the meantime, certain detailed information regarding losses in production in factories through shortage of manpower, and information which is becoming increasingly available regarding the wastage of manpower and womanpower in the armed services, is being collected from the district associations and other affiliated organisations.'

¹ Cable No. 222, Prime Minister of New Zealand to Prime Minister of **United Kingdom**, 29 April 1943. *Documents*, Vol. II.

² At this stage 3 Division was embarking on the first of its three Island actions, on **Vella Lavella**. See **Oliver A. Gillespie**, *The Pacific*,

Chapter 5.

³ *Dominion*, 30 November 1943.

WAR ECONOMY

THE MANPOWER DILEMMA

The Manpower Dilemma

The urgency of the need to reduce the strain on civilian manpower was matched only by the Government's reluctance to withdraw from either of the overseas theatres in which New Zealand forces were engaged. To maintain a division on both fronts, and to keep up food production, was obviously impossible, but, while the production of food was coming to be seen as New Zealand's main war contribution, neither Churchill nor Roosevelt could be induced to condone the withdrawal of New Zealand forces. Churchill wanted 2 Division to take its place at the fall of Rome ¹ and, with him, many in New Zealand looked forward to this fitting climax to the achievements of the Division. Roosevelt wanted 3 Division to remain active in the Pacific until the fall of Tokyo, ² and here again there was a strong body of New Zealand opinion to advocate that New Zealand should take its proper place in Pacific affairs.

To place the flow of food in jeopardy was out of the question. The decision had to be made between the withdrawal of 2 Division or 3 Division. New Zealand had to make the decision; her allies would not make it for her. As with all difficult decisions, it tended to be deferred.

By the end of 1943 the problem of staffing for the peak of the 1943–44 food production season had become critical. On 4 December the Deputy Prime Minister wrote to Admiral Halsey: ³

‘From a survey of the manpower situation undertaken by War Cabinet it is apparent that New Zealand is faced with a most serious crisis, particularly in regard to the production of foodstuffs. Accordingly every effort is being made to effect the temporary release of any further men from the Armed Services, and it is most earnestly desired that men who are to be relieved of garrison duties in the Pacific should be brought back to New Zealand, if possible

before the end of the year. Indeed, unless these men in the **Pacific** can be made available for employment in the freezing works before the peak of the season in January, it will not be possible to fulfil the commitments in respect of meat, either for the **United States Forces in the Pacific** or for the urgent needs of the **United Kingdom.**'

¹ The Hon. W. Nash (**London**) to Prime Minister of New Zealand, 9 February 1944. *Documents*, Vol. II, p. 337.

² New Zealand Minister (**Washington**) to Prime Minister of New Zealand, 14 January 1944. *Documents*, Vol. II, p. 329.

³ *Documents*, Vol. III, p. 430.

The number of men serving with the Army in the **Pacific** was reduced from 20,900 in December 1943 to 18,600 in March 1944, mostly by withdrawals from **Fiji, Tonga** and Norfolk Islands. However, Government efforts to tide over the 1943–44 season were concentrated on reductions in the numbers in the armed services in New Zealand, use of services personnel under the Army and Air Force harvesting scheme, and recruitment of holiday workers.

Between November 1943 and February 1944, the strength of the home forces was reduced by 9000 men. The Army and Air Force under the harvesting scheme supplied 6900 men on a temporary basis.

A statement by the Minister of Industrial Manpower on the 1943–44 season gives some indication of the expedients to which the Government was driven to tide over the seasonal peak: ¹

'The services of almost ten thousand teachers, students, and schoolchildren had been used by the **National Service Department** during the recent summer vacation period to assist in various forms of nationally urgent work, stated the Minister of Industrial

Manpower, Mr McLagan, yesterday. In paying a tribute to these people, and to the University authorities and educational bodies for their assistance, the Minister said it looked as though New Zealand would have obligations just as great, if not greater, in respect of seasonal industries this coming season, and it might be necessary to seek similar assistance again.

“The response from all concerned last season was most willing,” the Minister said. “From the University and Training Colleges we brought under direction 2099 men students and 1720 women. In addition, 212 men teachers and 558 women teachers were called up to help. These 4589 persons represented a large and willing labour force whose availability proved to be of the greatest moment in meeting our seasonal requirements. These people worked under the direction of the Manpower Officers, and as a whole they appear to have been reasonably satisfied with their conditions. There have, I am aware, been a few cases where persons were less fortunately placed and I am having any such cases fully investigated, so that their occurrence can be minimised should a similar necessity arise at the end of this year”.

¹ *Dominion*, 4 May 1944. Important seasonal peaks in New Zealand are from January to March for harvesting and fruit picking, from December to May for livestock slaughtering, and from August to May for dairy factories. Usual vacations are from November to February inclusive for universities and from mid-December to the beginning of February in schools.

‘The Minister said the main classes of industry to which the holiday workers went were as follows:

	<i>Males</i>	<i>Females</i>	<i>Total</i>
Farming	437	456	893
Vegetable growing	129	513	642
Other primary industry	92	171	263
Freezing works	388	1	389

Wool stores	335	1	336
Hospitals (apart from Medical Students)	—	146	146
Medical work (Medical Students)	241	38	279
Domestic work (on farms, etc.)	—	270	270
Dairy factories	97	—	97
Government clerical	13	20	33
Engineering	109	42	151
Manufacturing industries	120	129	249
Commerce	38	42	80

“We had also,” said Mr McLagan, “a very large army of most willing younger workers, who volunteered from the post-primary schools. Altogether we had the voluntary assistance of 3271 schoolboys and 1958 schoolgirls. This is apart from many who assisted in various ways without coming under the notice of the Department. The cumulative total of the work of these young people in the fields and vegetable gardens, if it could be measured into thousands of tons of foodstuff which they handled, would be amazingly great. I wish to express my thanks to all these for the fine way in which they helped us in a national service of the utmost urgency.”

A summary of the manpower problem of the time was available to Cabinet in a survey which was later conveyed to Mr Roosevelt by Mr Nash. His letter read, in part: ¹

‘The position in New Zealand requires some clarification in order to determine the most effective method by which we can use our manpower to help the war effort.

‘Our position at the time of the most recent full analysis was as follows:

Total number of males between the ages of 14–64	600,000
Of this total those engaged either full time with war and defence forces—in munition and war equipment manufacture—essential work, or minor, less essential	560,000

work numbered	
Total number of males between Service ages (18–40)	330,000
Of this total, at middle of last year those serving full time in Army, Navy or Air Services (exclusive of casualties) numbered	149,000
Of this 149,000, the forces overseas totalled	70,000

¹ *Documents*, Vol. II, No. 362, 24 January 1944.

‘The large proportion engaged in full-time war services is causing a reduction in our production of primary products. When I left New Zealand, for instance, in December last it was not possible to obtain full production in our meat freezing works (corresponding to your meat packing-houses) owing to shortage of manpower. Our butter, cheese and meat production from the farms is also declining owing to shortage of manpower (and of fertiliser, which is in very short supply).

‘We are anxious to use our full resources to finish the war at the earliest possible date, and also to meet all our commitments overseas, but we have to determine now where our manpower can best be used.’

WAR ECONOMY

A CHANGE IN MANPOWER PRIORITIES

A Change in Manpower Priorities

Since September 1942, the home forces had been required to give up manpower for return to the civilian labour force or to replenish the overseas divisions. By January 1944 they had released 50,000 men. It was not enough. This month brought the warning of another priority change. Manpower needs for production were now to be ranked higher than those of 3 Division in the **Pacific**. Reluctantly the decision was made to replace a portion of the manpower lost to food production and other essential industries, by bringing back from the **Pacific** men who volunteered for some of the most essential civilian work.

Mr Fraser wrote to Mr Churchill:

‘The whole question of our overseas commitments has now to be reviewed, in view of the fact that New Zealand has reached the end of its resources of manpower not engaged in essential industry and fit and available for service in the armed forces.’ ¹

Under extreme difficulty the Government had succeeded in maintaining two divisions overseas until early in 1944. Even now, when forced to acknowledge the impracticability of keeping both at full strength, it would not take the decision to withdraw either. The force in **Italy** was to be kept up to strength and higher priority was to be given to essential production. The **Pacific** force would have to be reduced in numbers. If possible, it would be kept strong enough to be an effective fighting formation.

The main **Pacific** force, 3 Division, in **New Caledonia** and the **Solomons**, which had its highest strength of nearly 18,000 in December 1943, was in fact kept above 17,000 until March 1944, but then a more momentous decision had to be made.

WAR ECONOMY

FOOD CRISIS IN BRITAIN

Food Crisis in Britain

British food supplies were getting critically low. New Zealand dairy production in the 1943–44 season was at its lowest for over a decade, and meat production while higher than before the war was well below the preceding four wartime seasons.

United States forces in the Pacific were taking an increasing proportion of exportable surpluses, and exports of meat to the United Kingdom fell lower than for any year since 1931.

Britain had repeatedly stressed the need for extra food from New Zealand, and the British Ministry of Food viewpoint, that New Zealand should concentrate on food production as her war effort rather than on providing armed forces, was gaining ground. Butter had been rationed in New Zealand from October 1943, in order to make more available for export, but greater attention to production was also imperative, as the New Zealand Cabinet had realised when it made its decision, in January 1944, to bring back selected workers from the Pacific.

In the early part of 1944, the British food problem worsened. The weekly cheese ration had been successively reduced from 8 oz a head to 6 oz to 4 oz to 3 oz, and was finally in danger of being reduced to 2 oz. There was, for a time, a plan to suspend temporarily the butter ration of 2 oz, failing the arrival of further supplies.

Confirming a February 1944 discussion with Mr Nash, the British Minister of Food, Mr Llewelin, wrote: ¹

‘... I would like to give you a few figures illustrating the vital importance of New Zealand's production of meat and dairy produce to the people of this country and to our Armed Forces. If New Zealand's production declines below the present level I do not see

how we can possibly maintain our present standards of feeding in this country. Indeed I cannot be certain that we shall achieve this even if there is no further decline in the supplies you can send us and I can see no hope of making good our prospective deficiencies from any other source. It is the considered view of Cabinet here that the general standard of our civilian rations is not capable of any reduction if we are to keep the nation fighting and production fit. Therefore if some substantial reduction of the essential supplies which we get from your country has to take place our Service rations will almost certainly have to take a share in any cuts that have to be made. The following figures show the extent to which we depend on New Zealand for meat, butter, cheese.

‘ *Butter* To maintain our present ration of two ounces per week we need to import in 1944 160,000 tons of butter. Of this quantity we are looking to New Zealand to provide 96,000 tons. For practically all the remainder we look to [Australia](#).

‘ *Cheese* To maintain our three ounce ration we need 224,000 tons of imports and we are looking to New Zealand to provide 85,000 tons for this country and for our Armed Forces overseas. As we shall not get more than 80,000 tons of cheese from the U.S.A. in 1944, we shall probably have to reduce cheese ration for a number of weeks and replace this with canned meats from our protein reserves.

‘ *Meat* Although we are not so dependent on New Zealand to the same overwhelming extent for the maintenance of the 1s. 2d. meat ration, we are looking to New Zealand for 210,000 tons of frozen meat in 1944.

‘We must either get this quantity from New Zealand or we must look to the U.S.A. to supply us with whatever deficiencies in our liftings from New Zealand is caused by the supply of New Zealand meat to the U.S.A. forces in the South Pacific.

‘New Zealand has been able to send us substantially greater quantities of these foods in the past. For example, in the four years 1934–38 our average imports of butter from New Zealand were 136,000 tons and of cheese 89,000 tons. In the year 1940–41 you actually supplied us with 107,000 tons of cheese. In the case of meat our average imports from 1934–38 were 260,000 tons, and in the first year of the war 285,000 tons.

‘The particular foods which New Zealand sends us are those of which we are now in most need. It is in livestock products that we suffered our most serious reductions over pre-war consumption levels, and my scientific advisers tell me that our consumption of animal protein foods is now as low as it can safely be.’

¹ Letter copied in cable Nash to Fraser, 23 February 1944. Copy of cable in War History narrative No. 50, p. 12.

WAR ECONOMY

PACIFIC DIVISION BECOMES A TOKEN FORCE

Pacific Division Becomes a Token Force

Faced with these urgent British needs and with increasing American requisitions for food and services for her forces in the **Pacific**; finding, moreover, increasing difficulty in providing a minimum flow of manufactured goods to fill her own most pressing civilian requirements, New Zealand finally, in March 1944, decided to divert 11,000 men from the **Pacific** division, reducing it to a token force. The division in **Europe** was to be kept up to strength, and it was hoped, later, to have an effective force in the **Pacific**.

As an additional measure, to step up food for **Britain**, meat rationing was introduced in the same month.

It fell to the lot of General Barrowclough, commanding 3 Division in the **Pacific**, to pass on **War Cabinet's** decision. In a special message to his division on 7 April, he said: ¹

‘No modern war can be won by the fighting services alone. The production of warlike equipment and stores and primary products (including food) is as essential to the war effort as is the work of the soldier in the front line. By virtue of her geographical position on Allied lines of communication and because of her natural resources, New Zealand has been requested by the highest Allied authorities and as part of the general war strategy, to undertake a greatly increased programme for the supply of food and other primary products. This she cannot do without some reduction in the numbers of her armed forces. It has been agreed that she ought to recall from active service certain categories of men whose work in primary and essential industries at home is likely to be of greater assistance to the war effort than is their continued service with the colours.’

¹ Quoted by Gillespie in *The Pacific* at p. 198.

WAR ECONOMY

MANPOWER NEEDS FOR INDUSTRY

Manpower Needs for Industry

The scheme for diversion of men from the Pacific provided for the return to New Zealand by October 1944 of 11,000 men. Seven thousand were to be in the country by 1 July, the remainder to return at the rate of 2000 a month. The men were to be those who volunteered to work in specified essential industries. The National Service Department estimated the minimum needs of industry at 17,500 men, to be placed before the end of 1944, 12,600 for farming and related industries, 4900 for other essential industries.

Estimates for farming and related industries comprised:

Dairying and pig production	7,000
Meat and wool	1,000
Mixed cropping and stock	500
Vegetables and fruit	300
Butter and cheese factories	250
Freezing works	1,500
Food processing plants	100
Rural housing and ancillary occupations	1,950
	—
Total	12,600

For other essential industries the estimated needs were:

Sawmilling	800
Coal mines	300
Hydro-electric works	800
Railways	1,000
Housing	2,000
	—
Total	4,900

First priority was the return of 7000 men for dairying. They would be needed by July to start the 1944–45 season.

WAR ECONOMY

FARM MANPOWER NEEDS OVERESTIMATED

Farm Manpower Needs Overestimated

The estimate of minimum labour requirements for farming turned out to be far too high. Farmers and Primary Production Councils had overstated shortages, and there was no proper picture of labour trends on farms against which their estimates could be checked. Mechanisation and new methods on farms had reduced labour needs far more than was realised. Instead of 7000 men, expected to be needed by July for dairying alone, only 4286 men could be placed on all farms by November. The experiences of the **National Employment Service in trying to place men released from 3 Division are outlined in**

This unfortunate experience highlights the need for good background statistics in making the type of judgment which was required of the [National Employment Service](#). For reasons which no doubt seemed adequate at the time, the 1931 and the 1941 population censuses had been abandoned. The result, however, was that the only comprehensive picture of labour force distribution after 1926 available to the [National Employment Service](#) was that given by the 1936 census. There was therefore no up-to-date picture of recent trends and, as a result, a good deal of wartime manpower policy lacked a firm factual background. There can be no substitute for a background of information of this sort, when important decisions have to be made. The extent of public clamour at the time does not provide any reliable estimate of the size of a problem, as the [National Employment Service](#) found.

In Chart 77, successive census results are compared, the use of male labour in each major industry group being equated to 1000 in 1936. The chart shows clearly the difference in growth of labour requirements in farming as compared with other industry groups. Between 1936 and 1951, the use of male labour on farms declined 21 per cent, whereas the use of male labour in all industries increased 13 per cent. It is easy to see that inadequate warning of this strikingly different trend in farming employment was likely to lead to wrong wartime judgments.

Labour force changes up to 1945 are confused by the fact that 45,400 persons were still serving overseas at the time of the 1945 population census. ² However, the wartime boost to the growth of manufacturing industries shows up clearly in the chart. Between 1936 and 1945 the numbers engaged in manufacturing increased 15 per cent; those in farming decreased 22 per cent. The building and construction industry, in spite of the impetus of defence construction in 1942–43 and 1943–44, had 8 per cent fewer workers in 1945 than in 1936, but was to make a spectacular spurt after the war. Of the industry groups with a long-term upward trend, distribution and finance was most seriously

affected by the war. It had 20 per cent less labour in 1945 than in 1936.

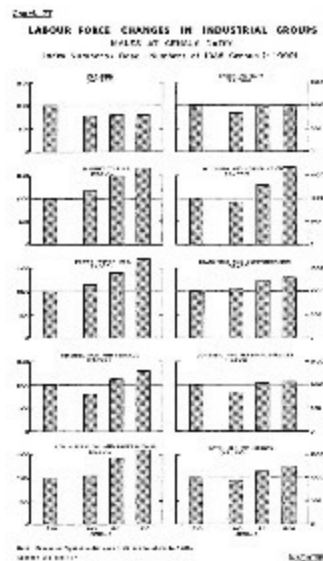


Chart 77

**LABOUR FORCE CHANGES IN INDUSTRIAL GROUPS
MALES AT CENSUS DATES**

Index Numbers: Base - Numbers at 1936 Census (= 1000)

¹ pp. 193-4.

² Including about 700 women.

WAR ECONOMY

PUBLIC CRITICISM OF THE SIZE OF THE HOME FORCES

Public Criticism of the Size of the Home Forces

While 3 Division was being reduced, there had been growing agitation in New Zealand about the strength of the armed forces held in New Zealand when the Japanese were on the defensive. A committee of civilians, the **Defence Forces Personnel Committee**, was set up in May 1944 to investigate the manpower situation in the armed forces. Over the next year the committee visited and reported on military establishments in New Zealand and the **Pacific**.

Action was too slow for some critics, and, on 15 July 1944, the *New Zealand Herald* launched a full-scale attack on the **RNZAF**. The first of thirty paragraphs read: ¹

‘The time has come for New Zealand to be satisfied whether its present Air Force establishment is necessary. It should be told why the colossus which was justified in 1942–43 should retain its stature in 1944 when so much of the excuse for its size has apparently disappeared as rapidly as the war in the South Pacific has receded from this area.’

It has to be remembered that, as 3 Division was reduced, the Air Force and the Navy became New Zealand's only sizable representation in the **Pacific** theatre, and that a considerable organisation was necessary in New Zealand to keep the **RNZAF** in the **Pacific**. Moreover, the **RNZAF** reached its peak wartime strength over a year later than did the Army. However, there seems justification for the contention that some New Zealand stations kept too many men for too long.

The strengths of the forces in New Zealand were, compared with a peak strength of 107,000 in September 1942, 72,500 in August 1943, 56,900 in February 1944, 54,900 in August 1944 and 41,500 in February

1945. The RNZAF had, in New Zealand, 29,700 in August 1943, 28,500 in February 1944, 27,000 in August 1944 and 21,500 in February 1945. Its peak strength in New Zealand had been 30,600 in September 1943, but it did not reach its peak strength in the **Pacific** theatre until March 1945, when just under 8000 were there.

¹ The full article and a discussion of it is in War History narrative, 'The Manpower Situation in the **RNZAF**, 1944–45'.

Squadron Leader Ross writes: ¹

'On some stations and in some trades, manpower was not used to the best advantage and there was room for improvement; but in general the position was not nearly as bad as the public was led to believe.

'A certain discrepancy between available manpower and immediate needs at the time was inevitable. The RNZAF had been expanding its **Pacific** strength as rapidly as possible to meet its commitments, and was in the process of levelling off. There was necessarily a slight time-lag between the achievement of full strength and a review of that strength to see if it was too great or too small for the job in hand.'

¹ Squadron Leader J. M. S. Ross, *Royal New Zealand Air Force*, p. 290.

WAR ECONOMY

THE END OF THE PACIFIC DIVISION

The End of the Pacific Division

In September 1944 the Government bowed to the impossibility of maintaining all its manpower commitments. It decided to leave 2 Division in **Europe** and to use the balance of 3 Division to reinforce it. ² This was a disappointing ending for the **Pacific** division; the only consolation was that New Zealand would continue to be represented in the **Pacific** by her Navy and Air Force.

Actually, by the end of August, the Army had only 3400 men left in the **Pacific** theatre, 2600 of them in **New Caledonia** and the **Solomons**. ³

Gillespie says, ⁴ 'A total of 17,134 all ranks returned from the **Pacific**, and by the beginning of September were scattered far and wide. Of these, industry absorbed 12,069; another 3229 had embarked to join 2 Division; 38 were on their way to the **United Kingdom**; 830 were in camp with 16th Reinforcements, and 968 were held on home service.'

At the end of November 1944, 9100 men from 3 Division were held under direction in the following industries: ⁵

Farming	4,286
Building and construction	1,386
Meat freezing works	478
Logging and sawmilling	474
Railways	811
Coal mining	143
Butter and cheese factories	473
Other approved industries	601
Other industries	448
	—
Total	9,100

Meantime industry was repeatedly being combed through to find fit men suitable for armed service who could be taken into the forces without hampering essential production.

² **This was eight months after the decision had been made to reduce the strength of 3 Division. See also p. 489.**

³ **Parliamentary Paper H-19 B, 1948, p. 10.**

⁴ *The Pacific*, p. 202.

⁵ **H-11 A, Report of the National Service Department, 1946.**

WAR ECONOMY

LABOUR SHORTAGES IN THE LAST YEAR OF WAR

Labour Shortages in the Last Year of War

Between peak mobilisation in about September 1942 and the end of 1944, armed forces strengths were reduced by 59,000. The numbers serving in New Zealand had been reduced by 62,000, but 3000 more were serving overseas. In Europe, 2 Division was in need of reinforcements and replacements for long-service men, whom the Government had undertaken to release.

In late 1944 and early 1945, the Government was hard put to find sufficient men for the Division in **Europe**, without impairing food and other essential production. Promised reinforcements were delayed. The Prime Minister wrote in explanation to **General Freyberg**,¹ ‘... owing to their employment in the production of essential foodstuffs, which is now at the height of the season, 3rd Division personnel temporarily released to industry have not been returned to the Army on the dates expected. Difficulty is also being experienced in obtaining the release of men held on appeal, the majority of whom are also employed in primary industries.’

In January 1945, the Director of National Service said,² ‘The general manpower situation as 1945 commences is more difficult than it has been at any stage of the war.’ However, his recommendation that New Zealand should still further reduce her overseas commitments was not accepted. At this stage, apart from those serving in New Zealand, the main armed forces strengths were 36,000 in the Army in the European theatre, where replacements and reinforcements were urgently needed, 8000 with the **RNZAF** in the **Pacific** and 10,000 in the Navy.

The only remaining reserves from which new military recruits could be obtained were men held in essential industry. Cabinet decided, in February, that a further comb out of industry was to be made and,

except in sawmilling and coal mining, 20 per cent of the appeals reviewed were to be dismissed without reservation. The effect of this drastic instruction was to bring about an increase of 3000 men by May 1945, of whom most went overseas.

There was, however, increasing restiveness in industry about manpower policy, especially in view of the need for extra food production and the banking up of long-deferred civilian demands for many commodities.

¹ *Documents*, Vol. II, No. 412.

² Writing to Minister of National Service, 25 January 1945.

By the end of March 1945, a peak of 255,000 persons was employed in undertakings covered by declarations of essentiality. Industry was still seriously short of labour. Unemployment was down to some scant 200 marginal or semi-employable workers, and the **National Employment Service** had records of 6600 vacancies for males and 4800 for females.

Between peak mobilisation in September 1942 and VE Day, on 8 May 1945, armed forces strengths were reduced from 157,000 to just below 100,000 men and women. Of these latter 58,000 were serving overseas and 42,000 in New Zealand. ¹ By VJ Day, on 15 August 1945, a further 10,000 men and women had been released from the forces, lowering the total strength to around 89,000.

The end of the war in **Europe** brought increasing pressure for relaxation of manpower controls on the one hand and, on the other, demands for more men for industry. All declarations of essentiality were reviewed, and at the end of June the first revocations freed some industries. At the same time limited classes of people were exempted from manpower controls. The end of the war in the **Pacific** was followed quickly by further releases of workers and industries from control. The Minister of Labour, Mr McLagan, announced on 18 August that most

declarations of essentiality would be removed by the end of the year. In the meantime direction of labour would be restricted to the highest priority industries, and the only classes of workers subject to direction would be men aged 18 and under 45 who had not had overseas service, and unmarried women aged 18 and under 30. The last remaining group of declarations of essentiality was revoked in June 1946, and the last group of workers was freed from liability to direction in the same month.

There were still 56,000 men and women serving in the forces in November 1945, but demobilisation at this stage was proceeding rapidly and, by February 1946, total strengths had fallen to 26,500. However, had all these people been released too, it would not have seen the end of the civilian labour shortage. The employment situation had been much more lastingly changed than most people realised at the time. ²

¹ 2 Division, in [Europe](#), was kept at close to full strength until June 1945.

² See also

NOTEWORTHY EVENTS IN THE LAST THREE YEARS OF WAR

<i>Year</i>	<i>Overseas</i>	<i>Military and Political Events in New Zealand</i>	<i>Economic Events in New Zealand</i>
1942 (December)			<p>Comprehensive economic stabilisation scheme started in December.</p> <p>1942–43 is peak year for defence construction.</p> <p>Railway travel restrictions in North Island—July 1942 to January 1943.</p> <p>Full effect of depletion of civilian labour force about end of year.</p>
1943	<p>8th Army enters Tripoli in January.</p> <p>German forces surrender at Stalingrad in February—turning point of war in Russia.</p> <p>Battle of Bismarck Sea in March.</p> <p>U-boat losses averaging one a day by May.</p> <p>Resistance in Tunisia ends in May.</p> <p>Allied shipping position starts to improve in</p>	<p>Growing criticism of the size of the home army.</p> <p>High imports of defence materials.</p> <p>First satisfactory</p>	<p>Direction of civilian labour intensified.</p> <p>Lowest war year for marriage and birth-rates.</p> <p>Record imports from United States in 1943 (mostly Lend-Lease).</p> <p>Electric power shortages.</p> <p>Farm stabilisation accounts established in June.</p>

second half of year in this respect.
year.

New Zealand
Army in the
Pacific at peak
strength in
September.

Allied invasion
of **Italy** in
September—
Italy
surrenders.

UNRRA
established in
November.

Butter rationing starts
in October.

Harvesting for 1943–
44 requires
exceptional measures
to find sufficient
workers.

Acceleration in open-
cast coal mining.

Tribunal set up in
February to
investigate wages and
conditions for
railwaymen.

British food
position
worsens.

Request in
February for
urgent increase
in New Zealand
food
production.

Decision in March to
divert 11,000 men
from **Pacific** division,
mostly to the labour
force in New
Zealand.

Meat rationing starts
in March.

Railway coal stocks
low. Travel
restrictions applied,
January to September.
Annual Holidays Act
passed in April.

**Defence Forces
Personnel Committee**
set up in May,
following further
criticism of the size
of the home forces.

**Organisation for
National Development**
set up in May.

1944

D Day. Landing in France, 6 June.

First Super-Fortress raid on Japan in June.

Most United States forces had left by the middle of the year.

Decision in September to disband Pacific division.

Proposals for establishment of the United Nations in October.

Americans invade Philippines in October.

Super-Fortress raid on Tokyo in November.

Protest at Parliamentary salary increase—strikes in January.

Slightly less rigid rules for Court of Arbitration in June.

Dairy production in 1943–44 season lowest for over a decade.

Long-term contracts for meat and dairy produce signed with the United Kingdom in July. Lump-sum payments start.

Closing of United States base at Auckland in October.

Maximum New Zealand food supplied to United States forces in 1944.

Increase in Parliamentary salaries in December.

Manpower position, as 1945 commenced, most difficult in the war.

Electric power shortages tending to restrict industrial expansion.

Railways Tribunal grants back-dated wage increase in February. Public Service wages follow.

New regulations for

1945

Arbitration Court in February bring to an end period of rigid stabilisation.

Drastic comb-out of industry for further men for armed forces.

Standard wage pronouncement in March increases wages by 3 ½d. an hour.

United States forces invade Okinawa in April.

VE Day. 8 May.

United Nations Charter signed in June.

VJ Day. 15 August.

First revocations of declarations of essentiality in June.

WAR ECONOMY

CHAPTER 19 – FROM WAR TO PEACE

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WAR ECONOMY

GENERAL DEMOBILISATION

General Demobilisation

VE Day, 8 May 1945

VJ Day, 15 August 1945

IN the first half of 1945 men were being released from the armed forces at the rate of about 3000 a month. The rate of demobilisation was stepped up after VE Day, and from VJ Day general demobilisation started. The rate of discharge was then about 8000 a month, and, between 1 July 1945 and 31 March 1946, 73,000 men and women were demobilised. ¹

Where strengths of establishments were to be reduced gradually, priority was given to men whose release was applied for on industrial or compassionate grounds. Farming, dairy factories, sawmills, coal mines, and the building trade were given preference for release on industrial grounds. Apart from these special releases, the aim was to release first, if possible, those who had completed four years' service, and married men with children.

At 31 March 1946 there were still some 26,000 in the armed forces, 19,000 in New Zealand, 4000 in **Japan and 3000 in other areas. These strengths included 1900 women, mostly serving in New Zealand. Before the war total armed forces strengths, excluding Territorials, had been 2600.**

Early in 1946 a special force ² had been sent to join other Commonwealth forces garrisoning **Japan. Initially raised from late reinforcements in the 2 NZEF, it was later recruited on a voluntary basis and kept at a strength of nearly 4000 until withdrawn in 1948.**

Chart 78 shows the progress of demobilisation.



Chart 78
PROGRESS OF DEMOBILISATION
NUMBERS DEMOBILISED IN EACH QUARTER

The rate of discharge was about 4000 a month from April 1946, and general demobilisation was virtually completed by July 1946. Armed forces strengths were then down to under 16,000, of whom 10,000 were in New Zealand and nearly 4000 in **Japan**.

¹ Demobilisation figures are taken from reports of the **Rehabilitation Board (H-18)**. They differ from those given in the 1946 report of the **National Service Department (H-11 A)**.

² J Force.

WAR ECONOMY

GRATUITIES

Gratuities

When discharged, servicemen were given 28 days' leave on pay, a free railway pass for a month, and an allowance of £25 for civilian clothes.

In November 1945 the Government announced its gratuity scheme. Mr Nash said: ¹

'Let me summarise: (1) The gratuity is 2/6d a day for service overseas, and 8d a day for service in New Zealand. (2) The serviceman will require to make application for it; application forms will be made available at an early date at post-offices, Army offices, and other places throughout the Dominion. (3) After an application has been checked ..., the serviceman will own money in a post-office savings-bank account.

¹ NZPD, Vol. 271, p. 622.

(4) The minimum payment on behalf of a deceased serviceman will be £200. (5) The minimum for a permanently totally disabled serviceman, £200. (6) For each of three years a 5 per cent bonus will be paid on the 31st March on the sum remaining in the War Gratuity Post-Office Savings-bank Account. (7) A five per cent discount will be given to a serviceman for all money used to pay off capital sums approved by the Minister of Defence. ¹ (8) All gratuities are free of taxation—social security charge, national-security tax, and income tax. May I, in conclusion, urge again the imperative necessity, in the interests of the serviceman and the interests of the economy of the country, that the minimum should be withdrawn and spent, and that the maximum sum be left until

the end of the period? It will pay the serviceman, and it will pay the country.'

Nearly £23 million was paid out in gratuities. The injunction and encouragement to defer spending them had some effect. In March 1949 over £11 million remained in the special savings bank accounts. At this stage they were closed down, all but £2 million of the balances being transferred to ordinary Post Office Savings Bank accounts or to national savings investment accounts.

¹ The purposes were specified thus: (a) For the purpose of purchasing a home, or furniture, or any other real or personal property for the investor: (b) For the purpose of establishing the investor in any business, profession, trade, or occupation: (c) For any other purpose approved by the Minister. (Section 10, War Service Gratuities Emergency Regulations 1945. Gazetted 23 November 1945.)

WAR ECONOMY

EMPLOYMENT OPPORTUNITIES

Employment Opportunities

The general economic situation had an important influence on the progress of re-establishment of men in industry. It was quite apparent from the reduction in numbers of unemployed, the increase in vacancies in industry, and the clamour by employers for a more speedy reduction in the numbers of men serving in New Zealand, that, initially at least, there would be less difficulty in finding suitable employment for men who were demobilised than there had been after World War I.

As it turned out, the shortage of labour generally was to continue, and to make the problem of rehabilitation comparatively simple. The **Rehabilitation Board, in its 1947 report, said: ²**

‘The continued buoyancy of demand for labour in industry, together with a marked and commendable inclination of exservicemen to “settle down” in employment within a reasonable time after discharge from the Forces, has rendered the problem of placement of ex-servicemen a comparatively light one.’

At this time 95,000 out of 167,000 demobilised ex-servicemen had been self-placed. ¹

Where servicemen had to be found employment, the newly-emerged **National Employment Service ² acted as agent of the **Rehabilitation Board**. Of more direct concern to the Board was the employment of disabled ex-servicemen, who were placed through the agency of the **Disabled Servicemen's Re-Establishment League**.**

Where necessary, certain expenses incurred in finding employment might be met by the Board, including fares, travelling allowances, costs of removal of furniture and effects up to £25, and a separation allowance if a man was obliged to maintain two homes.

Substantial numbers of women and older people, who had joined the labour force during the war, resigned as servicemen returned to work. However, there remained plenty of jobs for all who wanted to work. Even when general demobilisation was complete, factories, unable to get enough workers, were still paying in overtime £10 million a year more than before the war.

² **Parliamentary Paper H-18, p. 14.**

¹ **J. W. Williams, *The New Zealand Economy in War and Reconstruction*, p. 59.**

² **Previously the [National Service Department](#). It amalgamated with the [Labour Department](#) to form the Department of Labour and Employment in April 1947. The name was changed to [Labour Department](#) in 1954.**

WAR ECONOMY

REINSTATEMENT OF EMPLOYEES

Reinstatement of Employees

Those servicemen who wished to return to their former employment were protected by the Occupational Re-Establishment Emergency Regulations 1940, which required a serviceman's former employer to reinstate him with wages and other conditions not less favourable than he would have enjoyed had he remained at his job.

The Government's policy was that nobody should lose civilian status because of his service with the forces and, where necessary, the regulations were interpreted accordingly. ³

Actually, very little use had to be made of these regulations, and there were fewer than 200 cases of alleged breaches between the years 1940 and 1948. In nearly every one of these cases, discussion or a warning was sufficient to induce the employer to comply. The acute shortage of labour, which built up during the war years and continued into the post-war period, no doubt accounted for the exceptionally small number of cases in which the regulations had to be enforced.

Special problems arose with regard to apprenticeship, and separate legislation provided for the suspension of contracts and for their revival when military service was completed. ¹ Provision was also made for credit to be allowed in apprenticeship time for work of a like nature performed in the services. An apprentice, on reviving his contract, was to receive at least the apprenticeship rate of wages he would then have been receiving had his employment been continuous.

In spite of this protection, many apprentices, when they returned to work after military service, found that their wages under the existing contracts were too low. They were now older than an apprentice would normally be, and military pay and privileges had altered their standard

of living. General dissatisfaction with apprenticeship wages encouraged those who returned to take up unskilled work, which was readily available and returned higher rewards. The only solution was to pay journeymen's rates, in order to avoid the loss of potentially skilled men and wastage of earlier apprenticeship training.

All parties were agreed that apprentices should not suffer financially as a result of war service, but employers considered that, as the apprentice would be receiving a higher wage than his economic worth, a proportion, if not all of the loading, should be a charge on the community. Eventually an arrangement was reached whereby in most cases the employer undertook to pay one-third of the difference between the maximum apprenticeship rate and the journeyman's rate, while the **Rehabilitation Board** undertook to pay the remaining two-thirds.

While employers had extra responsibilities at the end of the war, with regard to the reinstatement of men who had joined the forces, they were rapidly being freed from other restrictions.

³ In giving a ruling on a particular case, in 1942, the Secretary of Labour said: 'It is not a question of reinstatement in the identical position held at the time of mobilization, but of reinstatement in an occupation and under conditions not less favourable to the worker than those which would have been applicable to him had his employment been continuous.'

¹ Suspension of Apprenticeship Emergency Regulations 1939 provided that if apprentices were away on military service and returned within a period of six months, the period of absence should be regarded as time served under the apprenticeship contract. The Suspension of Apprenticeship Emergency Regulations 1944 revoked the previous suspension orders, and made provision for apprenticeships which were deemed to be suspended as a result of military service to be revived within a period of six months of the termination of such service. Where a contract of apprenticeship was revived in accordance with these regulations, the term of the contract was to continue for the unexpired period as at the date of suspension, or for three years,

whichever was the lesser period. The apprentice could, however, be credited with any period of his military service during which he performed trade work of the same class, or of a class related to that to which he was apprenticed.

WAR ECONOMY

MANPOWER CONTROLS REVOKED 2

Manpower Controls Revoked ²

On the surrender of **Germany**, in May 1945, the Government had announced its intention of abolishing manpower controls as soon as possible. At this time there were over 250,000 workers in

² Further information is given in Parliamentary Paper H-11 A, Report of the **National Service Department**, 1946, pp. 57-62.

industries which had been declared essential. Well over half of these workers had been directed there, and many others would become subject to direction if they sought new employment.

Complete abolition of manpower controls would mean that over a quarter of the labour force would be able to move freely for the first time for several years. Though it was obvious that the conclusion of the war must soon bring to an end most manpower controls, this important change in the relationships between employer and employee needed to be made with a certain amount of caution.

The **National Employment Service** wrote: ¹

‘In regard to the removal of controls generally it was necessary to bear in mind the need for continuing to meet the requirements of men overseas—particularly for food—the necessity to push ahead with housing, and other work necessary for rehabilitation and the transition from war to peace; and the need to maintain an operative minimum of labour in key industries and services through the transition period. It was apparent that no wholesale removal of controls could take place immediately, but that relaxation must be a gradual process to smooth over the change

from wartime to peacetime activities as much as possible.’

On 30 June 1945 the first list of revocations of declarations of essentiality was gazetted; 184 undertakings were named. By VJ Day, undertakings employing 10,000 workers had been freed. The process was then accelerated. Meantime, the pool of labour subject to direction had been reduced until, at the end of August, it included only single women aged 18 to 29 years inclusive, and men other than returned servicemen aged 18 to 44 years inclusive.

A few days after the end of the war a public statement summarised the Government's intentions: ²

‘Further relaxations of manpower controls announced last night by the Minister of Industrial Manpower (Mr McLagan) provide for exemption from liability for future direction of all married women, irrespective of age, of all other women 30 years of age and over, and of all men of 45 years of age and over. Employers will not need to obtain consent for the engagement of labour within exempted classes, provided they notify all such engagements to the Manpower Officer within seven days. Most declarations of essentiality are to be removed by the end of the year, and some large groups by the end of September. All married women will, on application, receive automatic consent to leave essential industries if they desire to take up home duties....

¹ H-11 A, Report of the [National Service Department](#), 1946, p. 57.

² [Evening Post](#), 18 August 1945.

“With the end of the war against [Japan](#),” said the Minister, “the Government has given immediate consideration to the maximum extent to which manpower controls can at once be further relaxed. There are, of course, some industries and services

which have a particularly vital part to play in giving effect to the rehabilitation programme and the production of food for export and which will have to rely (though to a steadily decreasing extent) upon assistance from manpower control and direction measures. These will include such industries as hydro-electric development, freezing works and dairy factories, sawmilling and housing, coal mining, hospitals and mental hospitals, certain public utility services, woollen mills, and possibly a few others. It is unlikely that we can remove control from these industries this year. Removal even in these cases will, however, be made as early as possible, and the position will be kept under constant review, and further relaxations will be effected as demobilization proceeds.

“With the exception of the industries which I have already indicated, it is the Government's intention to have all other declarations of essentiality revoked by the end of the current year. In a number of cases the revocation cannot be effected immediately, but over the next few months very large numbers of men and women will be returning to industry from service in the Armed Forces, and their return will sufficiently ease the manpower position to enable these revocations to be effected. There are, however, a number of industries in which consideration of a number of matters (such as the ending of war contracts, the current manpower position in the industry, and the numbers of men and women likely to be returned from the Armed Forces) has convinced the government that declarations can be revoked by the end of September, if not sooner.”

‘... It will not be possible to avoid directions for some time yet, but in future directions will not be given to persons in the classes now exempted from the Employment Restriction Order. Directions will be restricted to only the highest priority industries, and other industries will be expected to rely upon voluntary sources of obtaining staff.’

From the end of November 1945 it was no longer necessary for

essential undertakings to obtain the prior consent of the District Manpower Officer for the engagement of new labour; provided the engagement was notified within forty-eight hours. The requirement to notify engagements was revoked from the end of January 1946, and, with similar relaxations for non-essential undertakings, no employer was now required to have consent to engage labour nor to notify terminations.

Meantime, further declarations of essentiality were being revoked. A [Wellington](#) daily reported at the end of January: ¹

‘It is estimated that 8,085 undertakings and 96,500 workers will be affected by the revocation, as from today, of all declarations of essentiality, with the exception of those relating to the industries of coal mining, dairy factories, freezing works, hospitals, prisons, sawmilling and tramways, and some small industries subsidiary to them. The declaration covering hospitals and prisons will be lifted from February 28th, tramways on March the 9th, and the others probably on March 31st.

‘Announcing these revocations the Minister of Industrial Manpower, Mr McLagan, said the most important of the declarations now being revoked were in respect of the following industries:

Brick and tile works, building, canvas, cement, clothing, concrete products, engineering, fertilizers, fire boards, flour milling, footwear, furniture, Government services, including Public Works Department, [Rehabilitation Department](#), [Price Tribunal](#) and second division Railway Department, laundries, main highways, rubber, sack manufacture, tanneries, timber merchants, woollen mills, hosiery, and knitting factories.

“Since the cessation of hostilities it has been the policy of the Government to relax manpower controls as soon as practicable, having regard to the necessity to maintain important production

and services till the benefit of demobilization from the armed forces can be felt,” said Mr McLagan. “Declarations of essentiality have been subject to constant review and considerable numbers have been revoked in progressive stages.””

After January 1946 very few direction orders were issued.² By the end of March, only three industries were still subject to declarations of essentiality. They were meat freezing, sawmilling and forestry, and coal mining.

From 29 June 1946 all remaining wartime manpower controls were abolished.

¹ *Evening Post*, 31 January 1946.

² There were 95 in February and March.

WAR ECONOMY

THE REHABILITATION BOARD

The Rehabilitation Board

Safeguarding the interests of servicemen returning to civilian life was a National Rehabilitation Council and a Rehabilitation Board responsibility.

The Rehabilitation Act had been passed in October 1941 to provide for the re-establishment in civil life of men and women who served in the forces during World War II. For this purpose, quite wide powers were given, including even power to provide finance for the reconstruction of wartime industries on a peacetime basis or to assist in the establishment of new industries. Under this Act, the Council and the Board were set up early in 1942.

The principal function of the Council was to make recommendations to the Minister in Charge of Rehabilitation in relation to the re-establishment of discharged servicemen in civil life. In the main it was an advisory body.

The Board, under the authority of the Minister, was charged with making all necessary provisions for re-establishment. To this end the Board was empowered to use and co-ordinate the services of various Government departments and other organisations. Specifically, the Board had power to acquire property for disposal to discharged servicemen, to give them financial aid, to provide vocational training, to arrange employment for them and to recommend to the Government any modifications necessary to ensure their entry into any employment or occupation.

Initially, instead of setting up a special department, the Board appointed various departments and organisations as its agents in particular defined fields, but with a Rehabilitation Division of the

National Employment Service playing a co-ordinating role.

In November 1943 the **Rehabilitation Department** was established with Mr **F. Baker**¹ as its Permanent Head. In many cases this special department gave the Board a more direct interest in the re-establishment of individual ex-servicemen; but much of the work still required close co-operation with other departments.

The aims of the **Rehabilitation Board** were: 'To see the ex-serviceman suitably placed in employment or provided with the means of earning a livelihood and to see him suitably housed.'²

In fact, in the immediate post-war years, the **Rehabilitation Board** and the Department were concerned with all aspects of the re-establishment of discharged ex-servicemen into civilian life, sometimes acting directly and sometimes co-ordinating the services available from Government departments and other organisations, where they could be used to assist ex-servicemen. The Board also determined the nature and extent of the assistance which might be granted to any class of serviceman and approved the granting of such assistance. It was assisted by **District Rehabilitation Committees**, which could keep in touch with discharged servicemen.

¹ Previously Lieutenant-Colonel **F. Baker**, DSO, a former Commanding Officer of 28 (Maori) Battalion.

² Parliamentary Paper H-18, Report of the **Rehabilitation Board**, 1646, p. 3.

The Committees' functions included limited powers to make grants of small sums for immediate assistance. They also allocated a quota of state rental houses to discharged servicemen, 50 per cent of all houses becoming available under the Government's housing scheme being set aside for this purpose. There were 112 committees operating in March 1948.

From £6 million in 1944–45, rehabilitation expenditure, including loans, leapt up to nearly £16 million in 1945–46 and then, for the years 1946–47 to 1952–53, averaged over £19 million a year. Thereafter it decreased fairly steadily, to be under £7 million in 1962–63.¹

Chart 79 shows annual expenditure on rehabilitation.

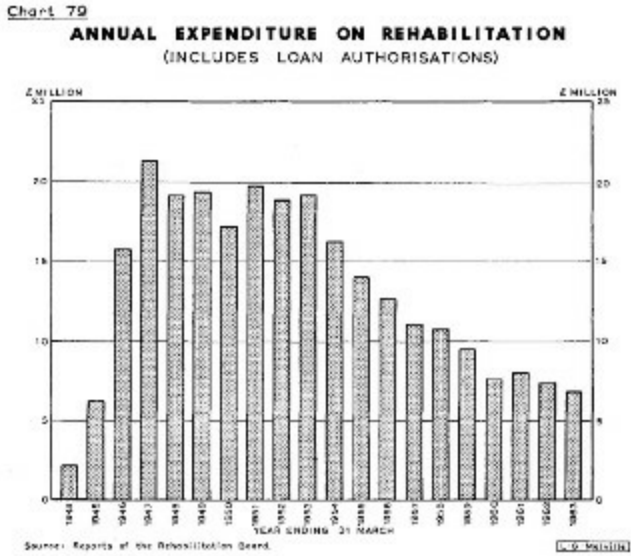


Chart 79
ANNUAL EXPENDITURE ON REHABILITATION
 (INCLUDES LOAN AUTHORISATIONS)

From April 1954 the **Rehabilitation Department** ceased to function as a separate Department, and became a division of the Department of Internal Affairs. Thereafter, it took the form of a board secretariat, with regional representation at **Auckland, Wellington, and Christchurch.**

¹ See also pp. 518– 19.

WAR ECONOMY

TRADE TRAINING

Trade Training

The **Rehabilitation Board's** main trade training activities developed out of the scheme for trade training centres, which had been started in 1940 to train workers to replace men entering the armed forces. The Board took over the centres in February 1944, and the scheme was then restricted to ex-servicemen. ¹

Under this scheme, the **Rehabilitation Board** concerned itself mainly with training for the building trades. At the peak of training activity there were carpentry training centres in twenty-one towns, painting centres in ten, bricklaying and plastering in four, and joinery in one. A roof-tiling course was conducted at **Wellington** from February to November 1945. In most cases the training period ranged from eighteen months to two years.

During their period of advanced practical training, building trade trainees were engaged on the construction of houses under the Government's housing scheme. In 1946 the **Rehabilitation Board** reported: ²

‘Since the modest beginning in 1942, the output of State houses built by trainees (during the course of their training) has steadily increased to the extent that the Department is now one of the biggest contractors for State housing in the Dominion. The number of completed units has increased from 19 in 1942 to 285 in 1945 and it is estimated that by 1947 some 1,400 houses will be built by trainees during that year.’

Provision was also made for the training of ex-servicemen in general engineering, welding, and the footwear manufacturing industry.

The last of the full-time Trade Training Centres closed in 1953, and

at that stage 7300 men had received full-time training.

A supplementary scheme ³ provided for contracts between employers, trainees, and the Board for engagement and training over suitable periods. Wages were subsidised by the Board at a gradually decreasing amount as the training progressed and the trainee's skill and production value increased. By 1953, 4200 men had been trained under this scheme.

The Board also assisted with the training of disabled ex-servicemen, the Disabled Servicemen's Re-Establishment League and the Blind Servicemen's Trust Board acting as its agents in appropriate cases.

¹ The Class A Scheme.

² Parliamentary Paper H-18, p. 10.

³ B Class training.

WAR ECONOMY

UNIVERSITY EDUCATION FOR EX-SERVICEMEN

University Education for Ex-servicemen

For those who wanted to take up or renew university courses, bursaries were provided. By 1946 over twice as many male students were attending university lectures as in 1939. A substantial proportion of the extra students was assisted by the **Rehabilitation Board**. Rehabilitation bursars, including those attending part-time, numbered 3400 in 1946 and 1947.

There was a peak university attendance in 1947, when 9200 male students were attending lectures, compared with 4100 in 1939. From 3400 rehabilitation bursars in 1947, the number fell gradually to 900 by 1950. University attendances fell, but not by so much. There were some 8300 males attending lectures in 1950. Buoyant economic conditions and other influences had raised the proportion of young people who sought university education.

Of ex-servicemen, Condliffe wrote: 'By the end of the financial year, 1953, about 27,000 had received generous educational bursaries and the number of renewals exceeded this total. The majority of these grants were for part-time study in the university colleges, but 4,212 were studying full-time (732 of them overseas) with all fees and academic expenses paid as well as subsistence at a rate of £6. 5. Od. per week for married men and £3. 13. Od. for single men.'¹

¹ **J. B. Condliffe**, *The Welfare State in New Zealand*, p. 96. The 4212 studying full-time refers to the number of students who were assisted in this way up to 1953, not to the number at any one time. Similarly with the 732. Initially the subsistence rates were below those stated. Later they were to be raised higher.

WAR ECONOMY

SETTLEMENT ON THE LAND

Settlement on the Land

Profiting by experience after World War I, when many untrained men who had been placed on farms were forced to abandon them, the Government classified applicants according to experience and ability. Inexperienced applicants who were otherwise suitable were given training before being placed on the land. Training farms were established, short academic courses were given for some of the more experienced men, and selected farmers provided training, while paying a wage which was subsidised by the **Rehabilitation Board. Where necessary, land was developed before placing ex-servicemen on it.**

To facilitate the purchase of land on which to settle ex-servicemen, and also to prevent land speculation and undue increases in land prices, the Servicemen's Settlement and Land Sales Act had been passed in 1943. Besides providing for the compulsory acquisition of land for ex-servicemen, ² the Act regulated the prices

² Subject to the right of the owner, if farming the land himself, to retain an economic unit.

of all land sales, fixing the basic value of farm land at its productive value, ¹ and the basic value of other land at its value on 15 December 1942. These basic values might be increased or diminished to arrive at a fair value.

****Land Sales Committees** were set up to determine fair values; and land was not to be sold for a higher price. The consent of a committee was required for each transaction.**

There was some tendency for sales to be made at figures higher than

those fixed by the Land Sales Committee, in cases where the prospective vendor was not willing to sell at that price. The fixed price would be recorded, and the balance paid secretly. A number of cases of extra payments being made came to light and others were suspected.² However, the Servicemen's Settlement and Land Sales Act did have a restraining effect on prices generally.

In addition, the Small Farms Amendment Act 1940 provided that applications of discharged servicemen were to have preference over other applications for any land made available for selection under the Small Farms Act 1932–33. Similar priority was given in ballots for land under the Land Act 1924.

The Government's policy of developing farm land before handing it over to ex-servicemen slowed up settlement, and gave rise to some impatience. In July 1947 the Minister of Rehabilitation, Mr Skinner, discussed progress. He stated³ that

‘two outstanding problems in connection with rehabilitation which still remained were land settlement and housing. The latest figures had not been released but he indicated that 4,000 ex-Service personnel had been settled on farms “and we still believe, despite criticism from some quarters, that our method of carrying out developmental work on blocks before handing them over to the men is the correct policy.”

‘There was no difficulty in acquiring land for the purposes required, but some years must necessarily elapse before hundreds of thousands of acres of undeveloped land were ready for ex-servicemen. However, the difficulty was to procure sub-divisional materials. The Minister said that the situation in regard to fencing wire, for example, was worse at the moment than at any time during the war. The Government was scouring the world for wire and had been able to obtain only small parcels.

¹ Section 53 (3) of the Servicemen's Settlement and Land

Sales Act 1943, read: ‘For the purposes of this Act the productive value of any farm land shall be deemed to be an amount equal to the net annual income (as ascertained in the manner provided by this section) that can be derived from the land by the average efficient farmer, capitalised at the rate of four and one-half per centum.’

² See, for example, *NZPD*, Vol. 274, p. 821.

³ As reported in *Evening Post*, 29 July 1947.

“We are not getting one hundred per cent of New Zealand's requirements,” said Mr Skinner, “and there is no prospect of the situation becoming easier.”

‘However, the fertilizer situation had shown a definite improvement. The end of the shortage of phosphate rock was in sight. The supply of the latter would soon exceed pre-war requirements....’

By March 1948, 641,000 acres of land had been purchased specifically for ex-servicemen, and in addition 75,000 acres of Crown land had been set aside. At this stage, 5100 men had been settled on the land with rehabilitation assistance, while a further 5600 men who had been declared eligible for assistance were awaiting settlement. Ultimately 12,500 were settled with rehabilitation assistance.

The following table summarises the method of settlement of men on the land:

EX-SERVICEMEN GRADED ‘A’ FOR FARMING ¹

<i>Position in March 1963</i>	<i>Number</i>
Settled on single units by Rehabilitation Loans Committee	8,799
Settled on land-settlement blocks by Land Settlement Board	3,502
Settled on single units and blocks through Maori Rehabilitation Finance Committee	179

Total settled with rehabilitation assistance	12,480
Settled without rehabilitation assistance	1,067
Assisted by Department of Maori Affairs	89
	—
	13,636
Awaiting settlement	166
	—
Total graded 'A'	13,802

Settlement of ex-servicemen on the land was usually successful. The care taken in selecting and, if necessary, training applicants, and the policy of developing land before handing it over, reduced the possibility of failure. There were a few cases where farms proved to be uneconomic, or where for other reasons the Board had to give further assistance, but, generally speaking, 'post-settlement problems have been very few in comparison with the assistance granted'.²

¹ Adapted from a table on p. 13 of Parliamentary Paper H-18, Report of the [Rehabilitation Board](#), 1963. Men graded 'A' were 'fully experienced and qualified for immediate settlement'.

² Parliamentary Paper H-18, Report of the [Rehabilitation Board](#), 1963, p. 8.

WAR ECONOMY

SETTING UP IN BUSINESS

Setting up in Business

Considerable assistance was given to ex-servicemen who wished to establish themselves in businesses. In the early years of demobilisation, transport undertakings proved particularly popular as own-account businesses for ex-servicemen, and in 1945 the **Rehabilitation Board** wrote: ¹

‘For ex-servicemen wishing to re-establish themselves in civil life by the acquisition of their own businesses the field of transport is proving most popular. In point of fact, more ex-servicemen have been assisted into this field than in any other except farming....

‘Because of the supply position, the difficulty of obtaining suitable transport vehicles has been a serious obstacle to ex-servicemen. Arrangements have been made amongst the **Rehabilitation Department**, the **War Assets Realisation Board**, and the **Transport Licensing Authorities** whereby the **Transport Licensing Authorities** allocate all new and ex-service trucks and vans in accordance with certain priorities necessary to keep essential transport moving, and with due and full regard to the claims of ex-servicemen properly approved and recommended by the **Rehabilitation Department**.

‘The allocation of second-hand cars, ex- **War Assets Realisation Board**, available for ex-servicemen is made by the **Rehabilitation Department**, and those suitable for taxi or passenger transport services go to ex-servicemen applicants for those businesses. Very few cars are now left for release through the **War Assets Realisation Board**. Negotiations have commenced for ex-servicemen to receive proper distribution of new cars as they become available.’

In its 1947 report, the Board referred to a ‘large unsatisfied demand for businesses of various types from some 1,900 ex-servicemen who have indicated their requirements to the [Rehabilitation Department](#)’. ²

Nearly 11,500 business loans were authorised for ex-servicemen who wished to set up in business; 3800 of these were for transport undertakings, 1400 for building and related trades, 1100 for professional services, 1700 for retail stores, and 3500 for other types of businesses. In its 1958 report, the Board wrote: ³

‘All except 13 of the 11,495 loans concerned were granted to ex-servicemen of World War II. The loans have been made in respect of businesses ranging from small suburban shops and one-man businesses to larger-scale organisations in which several qualified ex-servicemen have formed themselves into limited liability companies. The majority have been successful and it has only been necessary to write off less than 1 per cent of the total amount approved.’

Some industries were subject to licensing after the war, and in many cases ex-servicemen were assisted by giving them preference in the issue of licences. Up to 1958, 5300 transport licences had been issued to ex-servicemen, 400 petrol reselling licences, and 140 licences for other industries.

While rationing was in existence, ex-servicemen were assisted by giving them preferences for rationed goods. More than 2000 were assisted to obtain adequate quotas of rationed goods, and over 1000 cars and light trucks, imported under special licences, were allocated to ex-servicemen in the transport industry. The Board also sponsored applications for import licences, and over 1600 licences were granted on its recommendations.

Except in special circumstances, rehabilitation assistance to establish ex-servicemen in their own businesses came to an end in 1958.

¹ H-18, p. 4.

² p. 5.

³ p. 9.

WAR ECONOMY

ASSISTANCE WITH HOUSING

Assistance with Housing

Housing for ex-servicemen was one of the major rehabilitation problems. Loans were granted for building or purchasing dwellings, and there was a preferential allocation of state houses. At least 50 per cent of state houses becoming available were allocated to ex-servicemen.

By March 1948, 8200 state rental houses and flats had been made available, but there were then over 14,000 applications still outstanding. However, by 1957, when over 18,000 preferential allocations had been made to ex-servicemen, their housing requirements had been almost completely filled. The 50 per cent preferential quota had been abolished in 1956, leaving special arrangements to be made for any exceptional cases which remained.

The Servicemen's Settlement and Land Sales Act attempted to stabilise the prices for dwellings as well as for farms, by providing that there should be a basic value, based on 1942 values, which might be increased or decreased to arrive at a fair value. Fair values were determined by the **Land Sales Courts.**

For houses, as for farms, the law that no sale should be made at a price in excess of the fair value applied to all sales, not just those to ex-servicemen.

Here also, the law was generally effective in holding down prices, though it tended to reduce the number of sales. There was a fair amount of evasion, probably more than in the case of farms. A provincial daily reported in March 1945: ¹

'Allegations that returned servicemen, purchasing properties in Taranaki, paid special prices for such extras as clothes lines, fowl houses and concrete paths, have been commented on by the

Minister of Rehabilitation, the Hon. C. F. Skinner, who has strongly condemned the circumvention of house values fixed by **Land Sales Committees. It was alleged in **Hawera** recently, as an example, that in the sale of one property £300 was paid by a civilian purchaser for the front door mat as consideration above the price fixed by the Taranaki Committee.**

‘The Minister went on to say that by Section 14 of the Land Laws Amendment Act 1944 “It is an offence to offer or make any illegal payment or arrangement or to try to persuade anyone else to do so either before or after the hearing of the application. The wording is wide enough to include agents as well as principals, vendors as well as purchasers, and lessors as well as lessees.”’

Control of land sales, including farm land, was lifted in 1950.

As well as over 18,000 preferential allocations of state houses, 64,000 housing loans were authorised for ex-servicemen, and a similar number of furniture loans of up to £100. ²

¹ *Hawera Star*, 12 March 1945.

² These figures are up to 31 March 1963.

WAR ECONOMY

SUCCESSFUL REHABILITATION

Successful Rehabilitation

The task of rehabilitation was tackled with determination and skill, but was made much easier by the continuance of full employment right through into the 1960s.

In its 1963 report the **Rehabilitation Board wrote: ³**

‘As in previous years the employment position of ex-servicemen has presented no problems to the Board or to the Department of Labour, which continues to act as the Board's agent in the employment field.’

Up to the end of March 1963 rehabilitation had cost £264 million, but £192 million of this was by way of loan, ⁴ and some £90 million had been repaid by 1963. The larger loan authorisations were housing loans, £98 million; farm loans, £76 million; business loans, £7·5 million; and furniture loans, £6 million. The non-recoverable expenditure of £72 million included £1·8 million for education bursaries and allowances, £8·5 million for trade training, £41 million for farm training and settlement, and £20 million for interest concessions and other costs of loans. ¹

In 1964 the Minister of Rehabilitation forecast that most forms of assistance would come to an end in the following year. ²

Perhaps the best summary of the effectiveness of rehabilitation is given by Condliffe, who wrote in 1959, ³ ‘New Zealand did well by its returned soldiers’.

³ H-18, p. 4.

⁴ The **Rehabilitation Board**'s summary of expenditure showed £212 million under loans, but this included £15 million of interest concessions and reserve fund contributions, and £5 million of suspensory loans, which, in general, were not recoverable. The balance of £192 million represented loans authorised and recoverable. However, some £20 million of these loans had not been taken up by March 1963, though the money had been transferred to a lending Department. To this extent, rehabilitation expenditure was overstated, (i.e., the money was still in Government hands). See also **p. 519**, note 1.

¹ These totals refer mainly, but not exclusively, to World War II ex-servicemen. In its 1963 report the Board wrote: ‘... there are 217,179 ex-servicemen and ex-servicewomen recorded with the Board. Of these, 144,566 served overseas during World War II, 67,011 had home service during World War II, 4,592 served overseas with the Emergency Forces since 23 August 1950, and 1,010 saw service both during World War II and with the Emergency Forces.’ (H-18, p. 4.) In particular a small proportion of the rehabilitation costs were incurred for men who had served with the Emergency Force in **Korea**. Most merchant seamen from World War II were regarded as ex-servicemen for rehabilitation purposes.

² *Dominion*, 16 January 1964.

³ **J. B. Condliffe**, *op. cit.*, p. 98.

WAR ECONOMY

TERMINATION OF RECIPROCAL AID

Termination of Reciprocal Aid

In July 1946 an agreement was signed between the **United States of America** and New Zealand, terminating the reciprocal aid arrangements between them. ⁴ No payment was to be made by either country for goods or services supplied under the arrangement up to 21 December 1945. Subject to certain provisions about the transfer of munitions to any other country, each was to retain possession of goods supplied under the reciprocal arrangement. In addition it was agreed that New Zealand would purchase certain **United States** equipment which was then in the **Pacific** area for a sum of approximately \$5,500,000, equivalent to about £1,700,000 in New Zealand currency. This sum was to be used by the United States Government to purchase real estate and construct United States Government buildings in New Zealand, and 'for the furtherance of cultural relations of mutual benefit to the two countries'.

Elaborating on the purchase of surplus war property, the acting Minister of Finance, Mr Sullivan said: ⁵

'In addition to the discussions which have now been completed concerning mutual cancellation of lend-lease and reciprocal aid, negotiations have been in progress during recent months on the separate question of the purchase by the **New Zealand Government** of quantities of American surplus war material situated both in this country and in the **Pacific**. This includes items such as earthmoving machinery, steel huts and hangars,

⁴ Parliamentary Paper A-8.

⁵ *Dominion*, 11 July 1946.

civilian type aircraft, radio and navigational equipment, together with a large quantity of miscellaneous stores all in very short supply here, and which could not be obtained elsewhere. Satisfactory arrangements have been made to pay for this material without the necessity for immediate provision of dollar funds, by setting off the purchase price against contemplated expenditure by the **United States** authorities within New Zealand.'

Further details of the surplus equipment purchased were given by Mr Sullivan two days later: ¹

'The items include civilian type aircraft, together with spares; the Minister stated that arrangements are also being completed for the purchase of aviation aids necessary for internal air services and in connection with the Dominion's responsibilities on the international air route and for **Pacific** regional services.

'The surplus property purchased from the **United States** forces includes materials purchased in New Zealand and in the **Pacific**. The following are the principal items involved in the purchase. Earth moving equipment and plant of a similar type, \$2,274,000; hand tools for carpenters, engineers, etc., \$55,000; miscellaneous textiles, \$55,000; timber, 862,000 board feet, valued at \$38,000; miscellaneous steel buildings, \$254,000; tyres and tubes, \$250,000; miscellaneous stores of a general character taken over in New Zealand, \$454,000; various items purchased outside New Zealand, \$30,000. Spare parts for heavy equipment, \$99,000; freight etc. on purchases ex- **Pacific**, \$491,000.

'These items make a total of \$4,000,000.

'In addition the **New Zealand Government** is acquiring certain aircraft of a civilian type, together with spares, at an estimated cost of \$750,000....'

Some of the equipment purchased was of vital importance to New Zealand at a time when deferred civilian works needed to be put into

operation quickly, and when supplies of suitable equipment in New Zealand had been depleted, and orders for new equipment might not be filled for some time. The final shipment of heavy equipment from the Pacific arrived in New Zealand in September 1946.

The accounting value of Lend-Lease aid from the United States of America was £105 million, and of Reverse Lend-Lease, supplied by New Zealand, £81 million. New Zealand achieved a greater degree of price stability over the war years, and, in terms of

¹ *Evening Post*, 13 July 1946.

pre-war prices, the two would have been much closer in value. ¹ Nevertheless the mutual cancellation was a generous gesture by the United States Government. ² Both countries had gained a great deal from the easier movement of goods and services between them during the currency of the agreement. The contribution of each to the allied war effort was enhanced. In the words of the United States – New Zealand Mutual Aid Agreement of 1942, the war production and war resources of both nations had been ‘used by each, in the ways which most effectively utilise available materials, manpower, production facilities, and shipping space.’ ³

¹ New Zealand's more effective stabilisation policy put her at a disadvantage in trading relations with the United States of America in much the same way as it did with the United Kingdom. In the case of the United Kingdom the situation was recognised by the Lump Sum Payments, but in the case of the United States of America most transactions took place under the Mutual Aid Agreement. Since there was to be no cash settlement of the differences, the accounting values of the transactions were of rather less importance, and there was no case for making adjusting entries. See also pp. 326– 8 and 382– 4.

² Canada's equally generous gesture in writing off a balance of over £6 million at the termination of Canadian Mutual Aid is

mentioned at p. 144.

³ Parliamentary Paper A-7, 1942, p. 1.

WAR ECONOMY

DISPOSAL OF WAR ASSETS

Disposal of War Assets

In May 1944 the **War Assets Realisation Board** was set up, 'to undertake the orderly disposal of all buildings, materials, equipment and stores held in New Zealand or elsewhere which are declared by the services and Government Departments to be surplus to their requirements.'

Disposal of assets realised some £33 million, but, more important, an orderly method was found to bring as much as possible of the surplus material into peacetime use without delay, at a time when supplies of many lines were still very scarce.

Originally the Board had nine ex-officio members, ⁴ but the Minister of Finance could appoint other members. In 1946 there were fourteen members.

Government departments were to have first call on the surplus assets. An attempt was made to avoid dumping stores at bargain prices. On the other hand, it was necessary to push ahead with realisations to avoid deterioration or obsolescence of large stocks.

For commercial goods, trade channels were used where possible; otherwise goods were disposed of by tender or, failing that, by auction. Private treaty might be used where other methods failed.

Apart from assets declared surplus by New Zealand government departments, the Board purchased for disposal certain **United Kingdom** goods located in New Zealand, disposed, on a commission basis, of surpluses declared by the **United States Joint Purchasing Board**, and dealt with machinery, plant, and machine tools

⁴ This included the Minister of Finance, as Chairman, but he did not usually attend.

received as reparations. It was disposal agent for the **Linen Flax Corporation**, when linen flax factories were closed down. The Board was also required to find the best use for the special Government purchase of surplus **United States** equipment which was arranged at the time when the Mutual Aid Agreement was concluded. ¹

Most sales were made in New Zealand, but overseas organisations took goods valued at over £500,000. Food to the value of £1 million was sent as a gift to the British Government. ²

Surplus buildings and motor vehicles played a most important part in tiding over supply shortages in New Zealand. Many of the larger buildings were taken over by Government departments, others by local authorities. The Government had inaugurated a transit housing scheme in September 1945, and, for this purpose, buildings were provided free to local authorities. Prefabricated steel buildings, which had been used by the **United States Forces in the Pacific**, became classrooms and dormitories in schools and universities, office accommodation for Government departments and so on. One was even erected as a church. ³ Smaller wooden huts, after a short period when their large numbers saturated the market, sold readily for a wide variety of purposes.

By May 1948, 21,800 motor vehicles had been disposed of, ⁴ apart from the American vehicles mentioned below. Government departments, which bought 3100, and returned servicemen, who bought 5000, received preference. The general public bought 13,600. These vehicles realised nearly £5 million.

In 1946, because of allegations that the sale of damaged motor vehicles, made available by the **United States Joint Purchasing Board** and purchased by the **New Zealand Government** for disposal, had been carelessly handled, a Royal Commission was set up. The Board had had a

difficult task in disposing quickly of large collections of vehicles in varying states of repair, which were so jammed together in small areas as to make adequate inspection most difficult. ⁵

On most counts, the Commission found that the Board had acted properly, but found it to be at fault in not insisting on at least a rough valuation of certain of the vehicles before dealing with tenders. ⁶

¹ See also pp. 519–20.

² See also p. 526.

³ H-27, 1947, p. 8.

⁴ Including 1000 Bren-gun carriers. The figures which follow do not add exactly, due to rounding.

⁵ The vehicles were awaiting repair in New Zealand when hostilities ceased, many of them needing a major overhaul. The government-to-government purchase of these vehicles was arranged in December 1945.

⁶ Parliamentary Paper H-27 A, dated 23 September 1946, p. 18.

The Commission, however, made a more important observation. It said: ¹

‘I have the honour to report that I consider that in its present constitution the Board is too cumbersome a body for the effective discharge of its functions in a businesslike manner. The larger the number of members the more is the sense of personal responsibility dissipated. The evidence showed a too-ready acquiescence in the recommendations of the General Manager—the Deputy Chairman could not recall an instance where the Board

had disagreed with the General Manager's recommendations—and the failure to give time to due consideration of important matters. The official members have not necessarily the qualifications to deal with business matters. The Board should be organised on a businesslike basis, as it would be in the commercial world. If the members are too numerous, there can be no adequate discussion of business in a reasonable time.'

Response to this comment was quick and effective. The 1947 report of the Board said: ²

'Experience has shown that the Board as originally constituted and added to from time to time, a total of fourteen members, was too cumbersome a body for the effective discharge of its function. It was therefore recently decided to considerably reduce the size of the Board and as now constituted it consists of three members only....'

By 1948 the bulk of the Board's work was done. Assets had realised £3·5 million in 1944–45, over £11 million in both of 1945–46 and 1946–47, and £5·4 million in 1947–48. At this stage the Board estimated that revenue for the ensuing period would not exceed £2 million.

Up to March 1948 ammunition had realised £4·5 million, buildings and land £4·5 million, foodstuffs £3·9 million, motor transport vehicles and parts £6·1 million, textiles and clothing £2·9 million and other items £9·4 million.

From the economic viewpoint, the cash realised was not so important as the fact that vast quantities of surplus war materials had been distributed through the peacetime economy in a reasonably orderly fashion. Above all, they had been distributed speedily and with comparatively little waste at a time when many materials needed to assist in post-war recovery and development were in very short supply.

¹ Parliamentary Paper H-27 A, p. 35.

WAR ECONOMY

BULK PURCHASES OF FOOD CONTINUE

Bulk Purchases of Food Continue

Early in 1944 long-term contracts with the **United Kingdom** had been agreed upon, covering, initially, the seasons 1944–45 to 1947–48. Prices payable under the original wartime bulk purchase agreements were again raised, and it was at this time that the lump sum payments were initiated to compensate New Zealand for the disparity between bulk purchase prices and the prices she had had to pay for imports. ¹

Thus, when the war ended, New Zealand had an assured market for some years for her exportable food production.

The original bulk purchase arrangement for wool was not extended. It was to continue for one season's clip after the war. The arrangement terminated after the 1945–46 season. The situation for wool was quite different from that for the food products. Huge stocks of wool had accumulated, and their satisfactory disposal was expected to take many years.

On the other hand, the shortages of food were expected to continue. The Agriculture Department wrote: ²

‘In 1944 contracts were negotiated for the bulk purchase of meat and dairy produce up to 1948. It was recognised at this stage that there could be no sudden return to a system of free markets after the war; world-wide shortages would make a system of controlled marketing essential and at the same time they would give producers a degree of stability during the transition from war to peace.’

United Kingdom Government communications, initiating the discussions which led up to the 1944 long-term contracts, are most interesting in the light of later developments. ³ The United Kingdom

Minister of Food wrote in December 1943: ⁴

‘My Ministry has been surveying the meat position with the object of ensuring that supplies may be available for a reasonable period ahead. I am told that the production of meat in New Zealand has not as yet been increased to any great extent (although steps which have been taken may be expected soon to produce results) and that the most effective way to increase it may be to give producers the confidence that would result from a long term arrangement to purchase their exportable surplus. We are accordingly prepared to discuss the purchase of your exportable surplus meat until the end of 1947.’

¹ See also pp. 382– 3.

² Parliamentary Paper H–29, Annual Report of the [Department of Agriculture](#), 1954, p. 7.

³ See pp. 554– 6.

⁴ This and his March 1944 communication are quoted in Parliamentary Paper H–30, Marketing Department (Export Division) annual report, 1944, p. 3.

Again, in March 1944, he wrote:

‘As you know the world supply position for milk products is causing us some anxiety and I believe your Government views with some concern the steady decline in exports from New Zealand to the [United Kingdom](#) and Allied nations. You may consider a long term contract for a period similar to that suggested for meat, about which I wrote you on 31st December last, may not only help to stem this decline but may well stimulate production to an extent that would enable exporting to be resumed on a scale more

nearly approaching that of immediate pre-war years. We are therefore prepared to discuss with the representatives of your Government the purchase of your exportable surplus butter and cheese for period ending with your 1947–48 production season.’

The arrangements concluded were for Government-to-Government sales, but there was to be consultation ‘as to ways and means of securing an orderly transition to the resumption of private trading if and when the present control is withdrawn or modified...’¹

¹ H-30, 1944, p. 6. In the agreement this provision was spelled out only for dairy products.

WAR ECONOMY

DISPOSAL OF WOOL STOCKS

Disposal of Wool Stocks

The problem for wool was to dispose of accumulated stocks without disrupting the market for the annual clip. At the end of the war it was estimated that this might take thirteen years. A contemporary statement summed up the situation: ²

‘Wool is in a state of transition. A controlling company in which the **United Kingdom, Australia, New Zealand, and South Africa** participate—the U.K. – Dominion Wool Disposal Ltd—has commenced operations as owners of a surplus, estimated at ten million bales, or two years’ normal supply from the Dominions, accumulated from British Government purchases during the war.

‘Auction sales will recommence later this year, at which the Company will ensure maximum and minimum prices by buying in wools or releasing additional offerings from its own stocks, so as to provide orderly and progressive marketing of the surplus along with current annual clips without detriment to the value of either, or to the manufacturer. Good quality wools are not expected to sell for less than prevailing prices.’

In New Zealand, a **Wool Disposal Commission** operated in conjunction with similar authorities in the **United Kingdom, South Africa and Australia**. Wool was sold by auction, starting with the 1946–47 season, but reserve prices were set and the Commission would buy in, if they were not met.

World consumption of wool increased faster than was expected; the Commonwealth surplus of 10 million bales was sold profitably at the rate of about 2 million bales a year. By July 1951 all but 4500 bales of the New Zealand accumulation of 1,777,000 bales was disposed of; the

balance was sold at the **United Kingdom** auctions early in 1952.¹

² **Annual Report of the National Bank of New Zealand, Ltd., 31 March 1946.**

¹ *New Zealand Official Yearbook*, 1954, p. 442. New Zealand received half the profits on disposal of the New Zealand surplus. See also **p. 561.**

WAR ECONOMY

GIFTS TO BRITAIN

Gifts to Britain

War Expenses Account for the year 1946–47 recorded, under payments, an item ‘Gifts to **Britain**’, £13·6 million. ² Reference has already been made to a gift of food to the value of over £1 million, out of the war surpluses held by the **War Assets Realisation Board**. ³ Not all of this food was used by **Britain** herself. In acknowledging the gift, **Sir Ben Smith**, Minister of Food, said: ⁴

‘You were so good as to indicate that the foodstuffs could be at our disposal for use where we think they will be needed. The gift consists of a great number of items. Certain of them we feel will be most useful in **India**, particularly the whole milk powder, malted milk, and service type biscuits. These we have offered to the Indian authorities, who have accepted them with gratitude, and the necessary shipping arrangements are being put in hand. A part of the dehydrated vegetables will be needed in **Malaya**.

‘We feel that it would be best for all the remaining items to be shipped to this country. The sausages, canned peas, canned tomatoes, and tomato puree, and possibly other items will be a welcome addition to our food supplies in the **United Kingdom**. They will be valued too as one more token of New Zealand's sympathy and help in times of difficulty.

‘As regards the substantial quantities of processed vegetables, wartime increase in production of potatoes and other fresh vegetables in the **United Kingdom** has been so great that it makes additional supplies of most types of dehydrated or canned food vegetables unnecessary to civilian consumption. Arrangements are being made for most of the processed vegetables to be used for relieving distress in European countries.

‘May I again thank you most cordially for this gift and for the continued efforts by New Zealand to assist in overcoming the grave and worldwide shortage of food supplies which I feel will continue to face us during these coming months.’

In 1947 [Britain](#), in common with other European countries, was swept by a blizzard of unprecedented severity. Her production was set back significantly at the very time she was struggling desperately to recover from the devastations of war. Commonwealth countries rallied round to assist and made generous donations to the country which had borne such a large portion of the economic as well as the military burden of the war.

In March 1947 New Zealand made a gift of £10 million sterling, equivalent to some £12.5 million in New Zealand currency. In announcing the gift Mr Fraser said: ¹

‘This gift from the Government and people of New Zealand to the Government and people of the [United Kingdom](#), is in recognition of the magnificent and unprecedented effort of the [United Kingdom](#) and her people in maintaining freedom and making possible its expansion in the years to come.

‘It will afford some reduction in the heavy load which the United Kingdom Government and people are carrying at this time, and recognise the enormous burden the United Kingdom Government has carried and is bearing during the post-war period.’

² Under UNRRA New Zealand also contributed over £5 million in the years 1945–46 to 1948–49 towards relief and rehabilitation in European and other countries.

³ p. 522.

⁴ As reported in the [Evening Post](#), 21 March 1946.

¹ *Evening Post*, 5 March 1947.

WAR ECONOMY

ECONOMIC PLANNING—ORGANISATION FOR NATIONAL DEVELOPMENT

Economic Planning—Organisation for National Development

Out of the desire for some co-ordinated plan for the transition from war to peace had come New Zealand's first attempt to establish a central planning organisation. The **Organisation for National Development** (OND) was set up early in 1944, as a branch of the Prime Minister's Department.

Mr **Sullivan**,² in announcing the Government's decision, outlined its intended functions thus: '... not only to study and plan for long range development of the Dominion, but also to make special preparations for practical measures to meet the period of transition which will occur on the cessation of hostilities. Not only will provision be made to assist in the rapid rehabilitation of members of the armed forces, but also for the safeguarding of the livelihood of a probably greater army of civilians whose energies have been

² **Hon. D. G. Sullivan**, acting Prime Minister. The statement is quoted by **Samuel Leathem** in 'Industry and Industrial Policy' (article in *New Zealand*, edited by **Horace Belshaw**).

diverted to war purposes. The first task must obviously be the restoration of industry to a peacetime basis at a time when there will be a shortage of raw materials and a huge demand for goods.'

A brief outline of the structure of the organisation was contained in the 1944 report of the **Rehabilitation Board**:¹

'All the major departments of State are in one way or another involved in the organisation, which, for obvious reasons, is directly responsible to the Prime Minister. Associated with the Prime Minister in the policy direction of the organisation is a Cabinet

Sub-Committee of Ministers most directly concerned—namely, the Ministers of Finance, Industries and Commerce, Works, Agriculture, and Rehabilitation. The Executive Committee of O.N.D., comprising the Permanent Heads concerned, including the Director of Rehabilitation, and working in close cooperation with a Chief Executive Officer, Mr J. S. Hunter, until recently Director of National Service, is responsible to the Cabinet Sub-Committee for organising and coordinating the activities of several (so far nine) major Research and Planning Committees, which are in turn comprised of the various State and non-State organisations affected. The Secretariat to the Executive Committee is located in the Prime Minister's Department. Each of the main Research and Planning Committees will, as necessary, create specialist sub-committees to deal with particular assignments allotted to them.'

Rehabilitation, and the need for full employment to provide a climate in which jobs would be available for demobilised servicemen, ranked high in government and official thinking at this time. Planning for full employment was therefore an important function of the Organisation for National Development. In fact, the 1945 report of the National Service Department went further. In discussing national and international plans for full employment it said: ²

'In New Zealand the establishment of the Organisation for National Development early in 1944 set in motion machinery to plan and coordinate the economic transition to peacetime conditions and the subsequent development of industrial activity. Full employment is thus the main reason for the Organisation's existence.

'The National Service Department works in close association with the Organisation for National Development in all matters concerning personnel in industry, and, by arrangement, the

¹ Parliamentary Paper H-18, p. 26.

Department, in cooperation with the **Rehabilitation Department** and the **Organisation for National Development**, will be responsible for the initiation and execution of all personnel research assignments. Already a number of these are in hand.’

The 1945 report of the **Industries and Commerce Department**¹ dealt with the full employment objective in relation to industrial development:

‘In working towards this objective through the expansion and further development of manufacturing industry, the Department enjoys, in addition to its close association with manufacturing enterprises during the past twenty-five years, the experience of, and consultation with, representatives of private enterprise and workers on the **Industrial Development Committee** of the **Organisation for National Development**.... Whilst the **Industrial Development Committee** is concerned with general policy, the Department, as the administrative body, is dealing with the practical issues, such as assisting in the provision of plant and raw materials to expand and develop secondary industry and.... investigations in relation to projected major expansions and new developments. The Committee has behind it the **Organisation for National Development**, with a staff of economic specialists, and with it is employed the departmental machinery of Industries and Commerce to devise and implement the plans best suited to the Dominion's economy.’

A comment in the 1945 report of the **Rehabilitation Board**² also stressed the full employment interests of OND, as well as giving an indication of the extensive network of this rapidly growing organisation:

‘The **Organisation for National Development** has sponsored the formation of some twenty-five autonomous bodies, known as **Regional Planning Councils**, whose functions are to examine and

advise upon both long-term and immediate projects for the development of their regions and the promotion of full employment therein.’³

The rehabilitation interests of OND were outlined in the same report:⁴

‘The Personnel Committee of the **Organisation for National Development** sits under the chairmanship of the Hon. the Minister for Rehabilitation, and its function is to concentrate on

¹ Parliamentary Paper H-44, p. 8.

² Parliamentary Paper H-18, p. 13.

³ Regional and town planning activities of OND are discussed more fully in the Report of the Local Government Committee, 1945, Parliamentary Paper I-15, p. 145.

⁴ p. 14.

working out detailed plans for demobilisation of the Armed Forces, rehabilitation of servicemen and civilian workers, and their re-employment in peacetime work.’

Another reference gives an example of the research activities of the organisation and their relationship to the planning function:¹

‘The **National Service Department, Rehabilitation Department, and Organisation for National Development** are at present collaborating in the conduct of a comprehensive survey of industry in New Zealand with particular reference to post-war plans and employment possibilities, whilst the **Rehabilitation Department**, in cooperation with the Service Arms, is conducting a census of serving personnel with the object of discovering the post-war

intentions and ambitions of the men and women yet to be demobilized. It is hoped that the summarised results of these surveys will provide basic data upon which the Committee will be able to progress to the preparation of a comprehensive manpower budget coordinated with the planning data assembled by other Research and Planning Committees of the **Organisation for National Development.**'

After these high-sounding references, none of the Departments mentioned OND at all in its 1946 report. By the end of 1945 the organisation had been disbanded.

Comprehensive planning, involving manpower budgets and the like, was quietly dropped. Other work, if it was continued, passed to existing Departments; in particular, the **Ministry of Works** took over the long-term planning for building and construction needs, the Rehabilitation Council and the **Rehabilitation Board** carried on with rehabilitation policy and its administration and, in April 1946, the **National Service Department** became the **National Employment Service**, charged with the responsibility to 'Generally do all things deemed necessary or expedient for the purpose of promoting and maintaining full employment, whether by facilitating the better location or availability of employment in relation to labour available or otherwise howsoever.'

Lipson and other writers ² have given a number of reasons why OND did not survive, but the seeds of its destruction may well be contained in some of the tendencies which are indicated by the above quotations. For example, the impetuous proliferation of committees and sub-committees, ³ a tendency to take an active

¹ p. 14.

² **Leslie Lipson**, *The Politics of Equality*, p. 392; **J. W. Williams**, *The New Zealand Economy in War and Reconstruction*, p. 62; **R. J. Polaschek**, *Government Administration in New Zealand*, p. 48.

³ On the other hand, large numbers of committees had been used in the transition from peace to war.

interest in the details of administration at too low a level, instead of being concerned with the main lines of economic policy; and failure to distinguish firmly enough between research and advice, for which an organisation like OND is suited, and co-ordination and planning, which for all major issues must remain the function of Cabinet.

In any event, a system of economic and financial policy co-ordination was to emerge early in the 1950s and survive well into the 1960s. It would use a rather similar group of Cabinet Ministers and supporting Permanent Heads, but would avoid the weaknesses just mentioned. ¹

The **Organisation for National Development** played a brief but quite important part in easing the economy from war to peace. The surveys it initiated provided valuable background information, and its active participation in planning broadened and to some extent co-ordinated the thinking of a number of departments directly concerned with reorganisation of the economy in the transition period. Had it been a little less grandiose in its plans for co-ordination of the post-war economy, it may well have survived to assist in the period of economic recovery and development which followed.

Organisation for National Development designs for the post-war economy would have converted New Zealand's economic policy into a centrally co-ordinated detailed plan. ² Though the **Labour Party** has often been accused of being socialistic, it was not ready for this. In defence of OND one should recall that the most important of its responsibilities was to evolve a plan to maintain full employment. With the structure of the economy as it had been before the war, this may well have required very extensive detailed planning. But the economy had been substantially changed. Contrary to all expectations, over-employment rather than under-employment was to be the prevailing

problem in the period of economic recovery and development.

¹ See also pp. 568– 9.

² See also pp. 527– 30. A stencilled OND report in 1944, entitled ‘Interim Report on Post-War Reconstruction and National Development’, included a chart which is particularly revealing. The chart has a footnote which reads:

‘This chart illustrates how coordination can be secured between Government and all other sections of the community. While the organisation provides a central office for research and pooling of ideas on reconstruction and national development, it does not restrict the implementation of industrial or other expansion usually carried out through the medium of private enterprise.’

However, the chart gives an impression, which no footnote can remove, of the highly co-ordinated and intensely detailed nature of the proposed planning.

WAR ECONOMY

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WAR ECONOMY

ECONOMIC RECOVERY

Economic Recovery

THE full effects of a major war do not exhaust themselves in a decade or two. Nevertheless, some of the more significant economic distortions of World War II worked themselves out in a reasonably short period, and peacetime influences then started to dominate where wartime influences had dominated before. It is in this sense that the present chapter sets out to discuss the recovery of the economy from the war, and to point to the beginnings of a period of economic development, comparatively unaffected by wartime diversions and restrictions.

A good deal of change in emphasis occurred around about 1955, and in some respects this can be taken to mark the end of a period of recovery. Certainly many of the building and construction backlogs which had built up during the war were overcome then, though some, notably the shortage of electric power generating plant, would continue for a few years. At about this time also, shortages of some of the consumer durables such as washing machines and refrigerators disappeared.

The more rigid wartime system of price control came to an end in 1955, too. Since 1939 all goods and services had been price-controlled unless they were specifically exempted. From 1955 a list of price-controlled items was prepared, and all items not on the list were free.

However, some quite significant effects of war can be found in the following decade; and, for this reason, at least the major economic events up to 1964 must find a place in this final chapter.

In the recovery period, if we may so designate the years 1946 to 1955, the most frequently discussed economic topic was inflation. The 1951 Economic White Paper, for example, devoted a considerable

portion of its text to discussions of stabilisation, the problem of inflation, and remedies for inflation. Later, the rate of development of the economy was to claim much more attention. Through all the post-war years, the tendency to over-import has persisted, and has been restrained from time to time by varying types of control.

WAR ECONOMY

SUPPRESSED INFLATION

Suppressed Inflation

New Zealand, wrote Condliffe, ‘emerged from the war taut with suppressed inflation.’ ¹

Incomes as well as savings were high, and shortages of raw materials and of finished goods were to continue for some years after the war. New Zealand, with its labour force already fully employed, was likely to have more difficulty than some countries in overtaking demand.

The policy of stabilisation was continued after the war and, indeed, many people saw its restraining influence then as even more necessary than during the war. In February 1946 a [Wellington](#) daily reported: ²

‘Emphasising that the stabilisation fight did not end with the war and that the danger of inflation was now greater than ever, the Minister of Industries and Commerce, Mr Sullivan, said in an address last evening that New Zealand was now in the second period for which stabilisation was designed, and that to abandon those controls now would be inviting disaster. Experience had shown that the period just after a war was the time of greatest danger from inflation, and the time when the greatest effort was called for to protect the economic security of the country. The Government had always made it clear that, while its stabilisation policy was vital to the New Zealand economy during the war, nevertheless it would be a necessary cornerstone of economic policy during the immediate post-war years, said Mr Sullivan. The problem was insufficient goods with Plenty of eagerness to buy, and if there were no stabilisation controls the prices of everything might rise to fantastic levels. To prevent that inflationary boom right now was the purpose of stabilisation. Price controls during the war kept inflation from getting into its stride and affecting the most important everyday commodities, and they must be maintained if the people were not to have

skyrocketing prices.’

Mr **F. P. Walsh** of the **Federation of Labour** went further, and pointed to the need for extra production to supplement the stabilisation scheme:

3

¹ **J. B. Condliffe**, *op. cit.*, p. 99.

² *Evening Post*, 18 February 1946.

³ As reported in the *Evening Post* of 6 March 1946.

‘He recalled the disastrous effects of the inflation which followed World War I, and said that there were dangerous elements in the present situation of New Zealand's economy. So far, thanks to the policy of economic stabilisation, which met with the official and active support of the **Federation of Labour**, we had come through the war well, and relatively to other countries we had achieved a great measure of success.

“But”, Mr Walsh continued, “we must not lose sight of the fact that the forces that brought about the chaotic conditions of boom and slump after the last war are present in the New Zealand economy today.

“... The only solution to our problem is increased production. I must stress again the point that, if we are to have higher standards of living, we must have more goods and services. Our movement is no longer just fighting for wages. We want to increase actual standards of living. To do this, we must increase production. Real standards come from production, not from the printing of a note issue.”

In war, savings had played a most important part in reducing the civilian demand for scarce goods and services. Now the risk was that this pent-up demand might be released too soon, before the flow of civilian goods and services was sufficiently increased. The considerable accumulated savings of civilians from the war period were swelled by the

gratuities which had been credited to returned servicemen, and were in many cases held in savings accounts. The consumer durables on which many of these savings might have been spent were not yet available in adequate quantities, and the risk that savings would be extensively used on the normal consumer market was an ever-present threat to price stability.

Williams wrote: ¹

‘The importance of savings held in monetary form as a source of inflation, is somewhat difficult to assess. Spending of savings has been kept in check by absolute shortages of materials. There is, for example a large demand for houses which cannot be supplied fast enough to meet the shortage. Controls of prices, rent, land sales, and materials prevent the price of old and new houses from being forced up, and the accumulated savings are held back. The same applies to such imports as automobiles. How long this situation will persist depends on how long people are willing to wait for goods now in short supply.’

¹ J. W. Williams, op. cit., p. 89. Written in 1948.

Actually savings proved to be a potential, rather than an actual, threat to stability. There was no sudden depletion of savings accounts; in fact, since the war, the sums in small savings accounts ¹ have increased every year.

The more immediate threats were the high level of incomes and the expansion of bank credit, coupled with accumulated shortages of consumer durables and capital equipment. The question was whether the conversion of the economy back to civilian production would be fast enough to cope in a reasonable time with the shortages and with the rate of expansion of demand.

Until 1947 the prices of essential goods and services were stabilised fairly rigidly, a policy which required increasing use of subsidies. The net

cost of subsidies increased threefold, from £4.6 million in 1944–45 to £13.6 million in 1947–48.

However, in 1947, a number of farm subsidies were removed and, in compensation, price increases were allowed on farm products. Some of the less important subsidies on other items were removed at the same time, and certain other subsidy rates were reduced, with resulting price increases in sugar and many other commodities. The retail prices index rose 10 per cent between the fourth quarter of 1946 and the fourth quarter of 1947, but not all of the increase was due to subsidy changes.

Apart from modifications of this sort, the general stabilisation of prices was continued, but, in November 1948, most fruits and vegetables were released from price control, and in January 1949 meat prices were freed from control for part of each year.

The Government took advantage of the buoyant state of the economy to announce the return of the currency to parity with sterling in August 1948.² Condliffe wrote,³ ‘This appreciation was timely and well executed but did not do more than damp down for a brief spell inflationary pressures in the economy.’

Meantime, the supply position for a number of commodities was improving. Petrol rationing by coupons was dropped in June 1946 but, after a period when oil companies were given the responsibility of making as equitable as possible a distribution, rationing had to be re-introduced in 1948. Clothing rationing was abolished in 1947, and tea, sugar, and meat rationing in 1948. Butter rationing ceased in 1950 and petrol rationing was finally abolished in the same year.

¹ In Post Office Savings Bank Accounts, Trustee Savings Bank Accounts, and National Savings.

² The currency had been depreciated to £125 NZ = £100 sterling in 1933.

In February 1949 the Court of Arbitration was given its first set of peacetime instructions to be taken into account in fixing award wages. New items it was specifically required to take into account were retail prices, economic conditions, and relative movements in incomes of different sections of the community. Several pronouncements or orders were made, and award wages, up to 1955, tended to increase faster than prices.

The remnants of the wartime economic stabilisation policy were abandoned by the National Government, after it came into office in December 1949. In 1950 there were reductions in the subsidies on flour, bread, milk, butter, and eggs. Those on coal and tea were removed. Retail prices rose 6.6 per cent between the first and third quarters of 1950, over 3 per cent of the increase being attributable to the subsidy changes.

Attempts were made to remove price controls progressively as supplies of goods and services improved. This policy received a setback for a time from the end of 1950, when the heightening of international tension caused new shortages and raised the prices of some goods.

In 1951 the Government decided to hold the prices of butter, milk, bread, and flour at their existing levels, a policy which was to require the increasing use of subsidies on these items. At this stage two-thirds of consumer purchases were price-controlled. ¹

¹ *The New Zealand Economy 1939 to 1951*. Parliamentary Paper B-5, 1951, p. 33. Based on items in the Consumers' Price Index. For all consumer purchases the proportion controlled was probably a little smaller.

WAR ECONOMY

RAPID CURRENCY DEPRECIATION

Rapid Currency Depreciation

In the recovery years, 1946 to 1955, retail prices increased at an average rate of nearly 5½ per cent a year. The purchasing power of the currency was depreciating dangerously fast. ² Savings in the Post Office Savings Bank and similar institutions were losing much more in purchasing power each year than the depositor was receiving in interest, a situation likely to undermine confidence in these forms of saving, and in the currency generally.

From 1955, prices became more stable. In this year some of the post-war shortages of consumer durables were overcome, ³ but, equally important from the point of view of currency stability, it marked the end of nearly a decade of rapid expansion in bank advances.

Subsidy removals had a considerable effect on short-term price fluctuations, but, over the period 1946 to 1955, cannot be blamed for much of the price rise. ⁴ Subsidy payments totalled under £9 million in 1945–46 and were £12.6 million in 1954–55, though they had been as high as £14.7 million in the interim. For sixteen years up to 1962–63, subsidy payments were usually in the range from £10 million to £15 million a year.

Chart 80 shows price changes up to 1964.

Chart 80

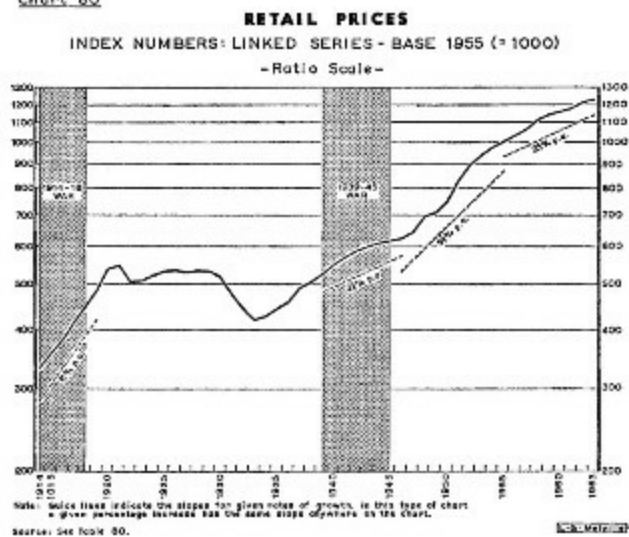


Chart 80
RETAIL PRICES
INDEX NUMBERS: LINKED SERIES - BASE 1955 (= 1000)
- Ratio Scale -

² The average rate for New Zealand, since the early 1900s, has been about 2½ per cent.

³ The demand for washing machines, for example, was satisfied in this year.

⁴ But see the fuller discussion of subsidies at pp. 305–8.

WAR ECONOMY

MORE STABLE PRICES FROM 1955

More Stable Prices from 1955

As international tension eased after **Korea**, and supplies again started to improve, price controls were removed from an increasing range of items, and, in 1955, the **Price Tribunal** reversed its policy of listing the decontrolled items and commenced to issue a 'positive list' of items subject to price control.¹ A warning was given that control on any item might be reimposed if it appeared that prices being charged for decontrolled goods exceeded reasonable levels. In accordance with this policy meat was again price-controlled for a time, commencing in 1960, but generally the policy of progressively removing further items from price control was continued.

From 1955, retail prices increased at the much more moderate average rate of a little over 2½ per cent a year until 1964.

Arbitration Court orders were still being made every year or two to adjust award, or minimum, wages. After 1955 award wages tended in general to keep pace with prices, but their purchasing power did not increase, except temporarily after an order had been made.

From 1961, the Court was required to take productivity into account among other criteria in fixing wages, and there was a small increase in real wages. However, the purchasing power of award wages in 1963 was still no higher than in 1955. Influenced by competition among employers for scarce labour, ruling wages had in general increased faster than award wages, and here wage earners were receiving part of the benefits of increased productivity.

¹ 1 Parliamentary Paper H-44, Report of the Department of Industries and Commerce, 1955, stated, at p. 49:

‘On 14 March, 1955, a “Positive List” comprising all items still subject to price fixation was published in the Gazette in accordance with powers provided in the Control of Prices Amendment Act 1953. The publication of the list marked the end of the former system of control, under which all goods and services except those specifically exempted were subject to price fixation. At the same time a large number of minor items, many of which had been subject to more or less nominal control only, was released from control. Some important goods were released from control at the same time, including carpets and some types of furniture, washing machines, vacuum cleaners, certain types of apparel, newspapers, and a number of services, including laundry and dry cleaning.’

WAR ECONOMY

FULL EMPLOYMENT

Full Employment

In the later war years, the conviction grew that a country which could achieve full employment of its labour force in war should be able to find a way of continuing full employment in peace. This conviction was not born of the idea that full employment would be easy to maintain, but of a determination that, however much effort it involved, economists and politicians must find a way to adjust the peacetime economy so that it would, in the interests of the people's welfare, do what it had obviously been able to do in the interests of war.

This feeling is summed up in a paragraph of a July 1944 report by the [Organisation for National Development](#): ¹

‘It is now more clearly recognised that nations which can organise the whole of their human and material resources in the service of the war effort, must similarly organise their capacity for the task of raising living standards. Provided the goal is clearly seen by all, and a high enough priority is attached to its attainment to enable all hindrances to be thrust aside or overcome—provided that is, that the whole resources of private enterprise, banking and otherwise, as well as all State enterprise, are directed positively towards the achievement of a state of full employment of human and material resources—then there is no basic reason why full advantage should not be taken of the

¹ *Interim Report on Post-War Reconstruction and National Development*, p. 1.

resulting high productivity of industry for the betterment of human conditions instead of for their destruction. It is to the attainment of this end, and all that goes with it, that the most able political and economic

thought is today being directed in virtually all countries.'

Again, in May 1945, the Director, Mr **J. S. Hunter**, wrote: ¹

'The most important single problem to be faced after the war is the maintenance of full and efficient employment of the Dominion's labour force.'

These were widely held views in the last year of war. Yet, when full employment persisted after the war, there was no lack of people to suggest that this outcome had been obvious.

The inflationary influences in the economy at the end of the war have often been offered as a sufficient reason for post-war full-employment. Williams, for example, wrote: ²

'Since the war, the demand for both consumers' and producers' goods has been much greater than that which industry has been able to satisfy at current prices. The consumers have large monetary resources and are willing to spend them. The result has been a very high level of employment without any action by the state other than the provision of labour exchange services.'

Again Weststrate, writing later, said: ³

'As the inflationary situation inherited from the war was obviously not created for the purpose of maintaining full employment, full employment was, in the immediate post-war years, just a by-product of the war. This applies also to other countries. In most of these inflation was halted around 1950. In New Zealand inflation went on. As it was the Government's professed intention to halt it, one cannot believe that it was consciously applied as a means of maintaining full employment. If full employment was not the intentional effect of inflation, it was an unintentional effect, a by-product.'

Weststrate was not content with this explanation alone. He teamed it with another cause, stickiness of wage rates. He went on to say: ⁴

‘Overfull employment is usually the effect of inflation plus “stickiness” of wage rates. The active cause is inflation; stickiness of wage rates is a condition that has to be fulfilled if inflation is to lead to overfull employment.’

¹ **In a circular to secretaries of Regional Planning Organisations.**

² **J. W. Williams, op. cit., p. 73.**

³ **C. Weststrate, *Portrait of a Modern Mixed Economy*, p. 133.**

⁴ **p. 137.**

However, these explanations were not enough. Inflation and lagging wage rates had been experienced in many other countries, and, on previous occasions, in New Zealand. They had usually led to rapid price rises, over-importing, and other evils, rather than to full employment.

Price rises, if inflation did not get completely out of hand, could be restrained by price control, and, to the extent that this control was really effective, high money demand would be persistent in its pressure on production, employment and importing. Price control was comprehensive in the immediate post-war years, but, even after considerable decontrol in the early 1950s, full employment was to continue.

In any event, it is likely that backlogs of capital goods and consumer durables, and the productive effort to replace them, would have kept employment at high levels in the early post-war years; but the scarcity of labour lasted much longer than did the accumulated shortages of these types of goods.

It is impossible to say how long inflation and full employment would have continued in the 1950s and 1960s if they had not been encouraged

by other influences which were not really war effects at all.

For a start, two important new government influences were at work in the post-war economy, both of them to a degree inflationary in their effects, ¹ but both having a range of other effects on the economic structure and its functioning. There was now a far-reaching social security scheme; and import controls, first used in 1938, were continued after the war.

Introduced and maintained as a measure to preserve overseas exchange, import controls were, in practice, used extensively as a shelter for the expansion of manufacturing industries. Even had this not been so, their presence ensured that a large proportion of the high level of incomes was channelled into demand for local production; and so helped to encourage expansion of output and employment. To the extent that local producers could not cope with the extra demand, it also tended to raise the internal price level.

¹ One because it tended to redistribute income from saving to spending groups; the other because it held back part of the flow of goods which might have helped to mop up excessive internal demand.

WAR ECONOMY

DEPLETION OF THE LABOUR FORCE

Depletion of the Labour Force

Another effect on the employment situation was the loss, as war casualties, of 11,625 men who would almost all have been in the labour force for a considerable period after the war. A larger number of men who survived the war were fully or partially disabled for further work. ¹ Then again, the rate of flow of migration into New Zealand fell right away during the war years so that this inflow of people, most of whom would have been members of the labour force, was lost.

These effects of war were reinforced by the effect of a pre-war influence on the size of the labour force. The birth rate had fallen in each year from 1928 to 1935. ² The result was a comparatively small contingent of young people entering the labour force after the war. ³

After 1939 the percentage of people in the age group from 15 to 64, from whom most of the labour force is drawn, decreased progressively in every year until 1960. The percentage was 68.5 in 1939 and 65.2 in 1946. It had fallen to 59.0 by 1960. ⁴

Chart 81 shows changes in the percentages in three major age groups in the population.

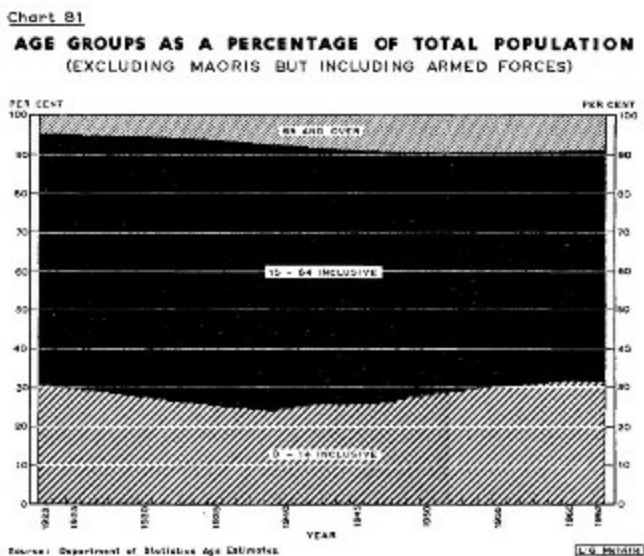


Chart 81
AGE GROUPS AS A PERCENTAGE OF TOTAL POPULATION
 (EXCLUDING MAORIS BUT INCLUDING ARMED FORCES)

¹ 17,000 were wounded, but more than this had their ability to work fully or partially impaired. In 1955, for example, 21,600 ex-servicemen from World War II were receiving disability pensions, the percentage of disablement being classed as 100 per cent in 1600 cases, 40 to 99 per cent in 4100 cases and under 40 per cent in 15,900 cases.

² A falling tendency was evident before 1928 too.

³ Moreover, the school leaving age was raised from 14 to 15 in 1944, tending to raise the average age at which young people joined the labour force.

⁴ It then started to increase slowly and had reached 59.4 per cent by 1962. Persons serving in the armed services are included throughout in calculating the percentages on which this statement is based.

The effect of this changing age structure on the size of the labour force has been offset to some extent since the war by an increased proportion of married women taking jobs. This has been in part influenced by changed attitudes as a result of war experiences, when

married women worked as a war effort, and in part by the wider range of job opportunities now offering.

On the other hand the higher school leaving age and the postwar tendency for an increased proportion of young people to seek higher education, aided usually by Government bursaries, has delayed entry to the labour force.

Some people have suggested also that increased Social Security benefits for the aged may have reduced proportions working, but the effect of this, when most of the new benefits have not been subject to means tests, is much more doubtful. ¹

Under these influences the proportion of the population actually working, already reduced by direct war effects, has tended to fall since the war, but not by as much as the changing age structure of the population might lead one to expect.

Depletion of the size of the labour force relative to the rest of the population may have been a contributing influence helping full employment to continue in New Zealand after direct war effects had been expended. However, this alone could not have accounted for the persistently high level of demand relative to the output of New Zealand's industries. Here two Government policies, though they often had quite unrelated objectives, interacted most effectively. The social security scheme was in no small measure responsible for the high overall level of demand, and import licensing restricted the proportion of this high demand which could be diverted to imports. Thus New Zealand production was nearly always less than the demand for it, and New Zealand's labour remained in short supply. ²

¹ This question is discussed in the author's paper 'Social Services and Economic Development', published in *Welfare in New Zealand*, edited by K. J. Scott.

² This summary is necessarily over-simplified, but contains what

are, in the author's view, the most important reasons for New Zealand's continued full employment.

WAR ECONOMY

UNDERWORKED FACILITIES FOR EMPLOYMENT PROMOTION

Underworked Facilities for Employment Promotion

The Employment Act 1945 established a **National Employment Service** for the principal purpose of promoting and maintaining full employment. The Act provided also for a complete employment service for the placement of workers and for assisting employers to secure labour, authorised occupational readjustment, training or other assistance to workers, and provided for surveys of employment. The **National Employment Service** was built upon the foundations of the Industrial Manpower Division of the National Service Department, which had carried out the functions of manpower direction and control in wartime. After twelve months' activity as a separate department, the **National Employment Service** was amalgamated in April 1947 with the Department of Labour. The combined organisation continued to provide the same employment services, where required.

In the event, official measures to maintain full employment proved to be unnecessary, and the new employment service found that its energies had to be directed to assisting employers to find scarce labour rather than to the maintenance of full employment.

Before the war substantial numbers of men who would otherwise have been unemployed had been employed by local authorities in subsidised work, much of it connected with roading.¹ Since the war there has been almost no call on local authorities to provide work specially for unemployed men. Williams wrote in 1948,² 'A number of short run Public Works schemes were designed by the Government and by local bodies to give employment to ex-servicemen. Under the conditions which prevailed these proved to be unnecessary and have either been scrapped or put into cold storage.'

Subsidies were continued after the war, but were paid in recognition

of national responsibility for some of the work done by local authorities, rather than as part of an employment promotion scheme.

The system of subsidy payments for roading was formalised in April 1954, with the creation of the **National Roads Board**, which took a large portion of petrol taxation for roading purposes and paid subsidies to local authorities for their share in carrying out approved programmes of work.

These subsidies no doubt helped to keep up employment in local authorities, but, with labour now in short supply, no encouragement was given to uneconomic work. Because of the rapidly increasing use of motor vehicles, improvements in roading, in spite of high rates of expenditure, could barely keep pace with needs. Subsidies for roading, as a percentage of national income, were in any case well below what they had been before the war.

Even with the considerable increase in roading and local authority functions generally after the war, the numbers employed by all local authorities had not by 1962 reached as high as they had been in 1939. Mechanisation was being applied increasingly to roading work, and sealing of roads had reduced maintenance staffs.

¹ See also pp. 437– 9.

² J. W. Williams, op. cit., p. 62.

It was thirteen years after the war before the number of registered unemployed rose above 1000, ¹ and in the nineteen years up to 1964 there have been only six months when it has risen slightly above 1500.

² The number has never reached 1700.

There has been a very small occasional resort to job creation to absorb small pockets of local unemployment, but this has involved only a few hundred people for a month or two.

In point of fact, had employment promotion been necessary on a broader front, it must soon have become apparent that the **Labour Department had been given the responsibility but not the facilities to ensure that full employment was maintained.**

Employment policy would then have required special fiscal and monetary policy measures, which could only have been administered through the Treasury and the **Reserve Bank; and which would no doubt have been thrashed out in the **Economic Policy Committee of Cabinet** and its officials committees.**

It took New Zealanders a comparatively short time to become used to and to expect low levels of unemployment. In the last decade rises in the numbers of registered unemployed to only as high as 1500 have caused considerable concern to the Government, be it Labour or National. The threat by firms to terminate the employment of even 10 or 20 people was to prove effective on occasions in obtaining import licences or other favours from the Government; this in spite of the fact that very seldom would any useful workers so disengaged have had to wait more than a few weeks for a new job.

¹ Even in 1952, 1953 and 1954, when net inflow of immigrants was averaging nearly 18,000 a year, predominantly in the working ages, full employment was maintained and the number of registered unemployed averaged less than 100.

² 1500 is one-sixth of 1 per cent of the labour force. Census counts have shown roughly 6000 unemployed (still well under 1 per cent of the labour force), but this includes short-term unemployed and others who do not seek the assistance of the placement service.

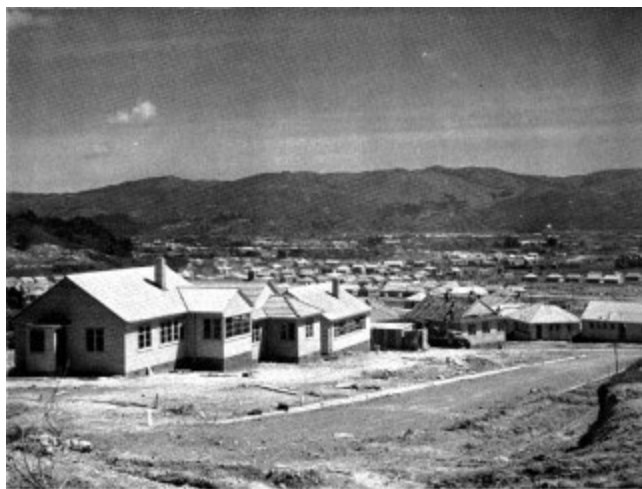
WAR ECONOMY

NEW AND INCREASED SOCIAL SECURITY BENEFITS

New and Increased Social Security Benefits

Massive redistributions of income through the social security scheme have been one of the most significant influences on the economy since the war. Though most income was liable for the flat rate of Social Security charge, the general tendency was for the scheme to transfer money from saving to spending groups, so helping to prolong the effects of the post-war backlog of unsatisfied demand.

Much of the framework of social security benefits had been introduced before the war, ³ but the more significant increases in expenditure occurred after the war. The most costly benefit, ⁴ the universal family benefit, started in 1946. At the same time the social security charge was raised to 1s. 6d. in the £ of income. ¹ Further large increases in costs after the war were added by the universal superannuation benefit, which had started at a nominal amount in 1940, but was designed to increase year by year until it matched the age benefit in value. ²



REVIVAL OF STATE HOUSE CONSTRUCTION
October 1944. As defence construction decreased, the State housing programme was accelerated

REVIVAL OF STATE HOUSE CONSTRUCTION

October 1944. As defence construction decreased, the State housing programme was accelerated



REHABILITATION

Disabled ex-soldiers making surgical boots for other wounded men

REHABILITATION

Disabled ex-soldiers making surgical boots for other wounded men



WAR ASSETS REALISATION

Surplus trucks for disposal

WAR ASSETS REALISATION

Surplus trucks for disposal



POST-WAR POWER DEVELOPMENT

The giant Marae-tai hydro-electric power scheme. Its completion in 1952 helped materially to overcome North Island power shortages

POST-WAR POWER DEVELOPMENT

The giant Marae-tai hydro-electric power scheme. Its completion in 1952 helped materially to overcome **North Island power shortages**

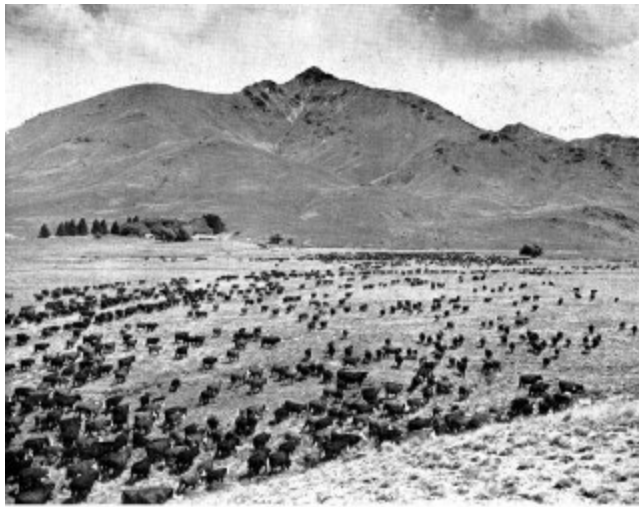


EXOTIC FORESTS

The source of a major post-war industry

EXOTIC FORESTS

The source of a major post-war industry



BEEF PRODUCTION

New markets for beef boosted post-war export earnings

BEEF PRODUCTION

New markets for beef boosted post-war export earnings

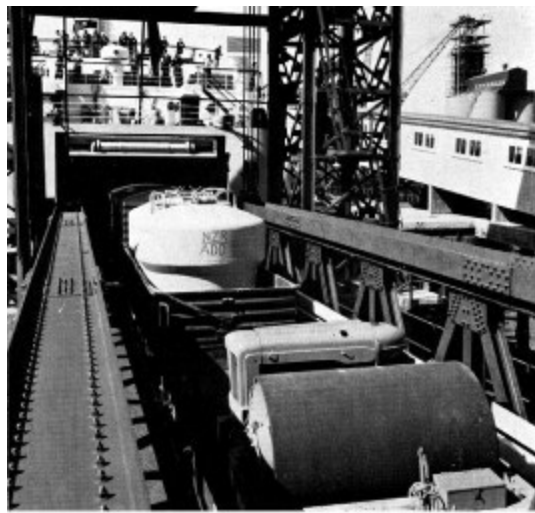


RAIL-AIR SERVICE BETWEEN NORTH AND SOUTH ISLANDS

Fast loading to speed goods and parcels transport

RAIL-AIR SERVICE BETWEEN NORTH AND SOUTH ISLANDS

Fast loading to speed goods and parcels transport



ROLL-ON FERRY

Fast, efficient inter-island link for heavy goods

ROLL-ON FERRY

Fast, efficient inter-island link for heavy goods

An innovation in 1958 was the provision for capitalisation of family benefits up to a total advance of £1000, to assist in purchasing, altering or paying off a home. ³

Chart 82 shows changes in the cost of social security benefits and pensions as a percentage of national income.

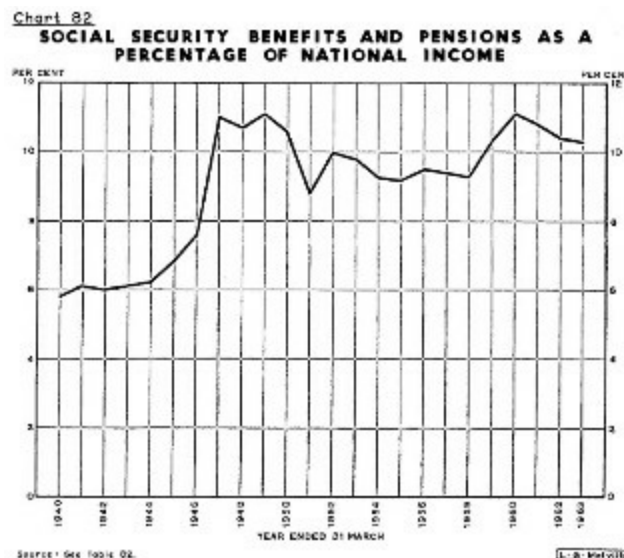


Chart 82

SOCIAL SECURITY BENEFITS AND PENSIONS AS A PERCENTAGE OF NATIONAL INCOME

The cost of social security benefits and pensions ⁴ was £22 million in the last year of the war, but had reached £41 million by 1946–47,

after which it increased steadily, to pass the £100 million mark early in 1959–60. The cost as a percentage of national income increased considerably between 1944–45 and 1946–47, but, though there were fluctuations when benefits were changed, it tended to fall slowly until 1958. Some of the benefits were not being adjusted for changes in the value of the £. Changes after 1958 raised the percentage to approximately the 1946–47 level.

³ See also [p. 10](#).

⁴ 10s. per child under 16, without means test. Raised to 15s. per week from 1958. The benefit is payable up to the age of 18 for children still at school.

¹ Still 1s. 6d. in the £ in 1964, but from 1962 the first £2 a week of income was exempted from the tax and from income tax.

² The age benefit is payable, subject to means test, from age 60; universal superannuation, without means test, from age 65. Universal superannuation was originally £10 a year, increasing by £2 10s. each year to reach the £78 payable under the age benefit, but several modifications have since been made in both rates of benefit. In 1963 the age benefit and the universal superannuation benefit were both £260 a year for unmarried persons and £234 each a year for married persons. In 1962–63, 70 per cent of all expenditure on monetary and medical benefits was paid without means test.

³ The scheme became effective in April 1959. See also [p. 565](#), note 1.

⁴ All social security benefits are included here, not just the cash benefits.

WAR ECONOMY

BANK ADVANCE CONTROLS

Bank Advance Controls

Judgments on the influence and duration of war effects are clouded also by the varying intensity of bank advance controls in the past twenty years.

Selective control of advances, by the [Reserve Bank](#), which outlined a policy for the trading banks to follow, commenced in January 1942, the general purpose being to channel advances away from speculative and other purposes which were not connected with the war effort.

A number of people believe that Government economic policy, since the war, has tended to concentrate too much on control of bank advances as a restraint on the internal economy, and on quantitative restriction of imports as a means of correcting recurring balance of payments difficulties. These policies, while each in its own way quite effective as a broad restraint, have tended to be clumsy in their application to individual cases. It may well be that their very effectiveness on the broad front has led to their being asked to carry too much of the burden of economic restraint. However, it is fair to say that some genuine attempts to free them from control have been defeated by the failure of bankers and importers to exercise self-restraint.

Bank advances were quite well held in the late 1940s. [Reserve Bank](#) statements in 1947 and 1948 outlined policies for the trading banks to follow. Advances were to be restrained for investment and other purposes where it was reasonable to expect other sources of finance to be used.

In 1950 there was some relaxation of control. A rapid expansion of credit followed. In April 1951 advances were £45 million higher than in April 1950.

A tighter lending policy was adopted in 1951.

Advance controls were continued in subsequent years, with varied intensity and effectiveness. The 1956 Budget statement said: ¹

¹ Parliamentary Paper B-6, Financial Statement, p. 9.

‘In order to reduce the level of bank credit, the Reserve Bank has maintained during the last twelve months a steady pressure on the trading banks by the use of the reserve ratio and the interest rate on trading-bank borrowing.’

However, no really effective control of bank advances was taken until late in the 1950s, when the Reserve Bank started to set targets for bank advances and to manipulate the reserve ratio requirements ¹ of the trading banks, as a disciplinary measure when targets were exceeded.

Trading bank advances rose from £58 million in 1946 to £183 million in 1955; they had more than tripled in nine years. ² The annual average was held below £180 million for each of the next five years, but jumped away again in 1961 to £217 million. Imports rose by £43 million in this year.

Chart 83 shows changes in bank advances.



Chart 83
TRADING BANK ADVANCES
ANNUAL AVERAGES OF WEEKLY FIGURES

¹ Affecting the cash balances the trading banks are required to keep at the Reserve Bank.

² These are annual averages of weekly figures. It is of interest to compare Chart 80, which shows what was happening to prices.

The unrestrained behaviour of importers and bankers when controls have been relaxed arises on occasions from a fear that controls may soon be tightened up again. This is understandable, but nevertheless unfortunate for those who would like to see controls removed. With no likelihood of self-restraint, the economy is particularly vulnerable when neither import nor advance controls are operating effectively. ¹ An impetuous rush of extra imports, financed largely by bank advances, can have disastrous effects in years when export earnings do not rise.

¹ As tends to happen around election times. The quite pronounced election cycle in bank advances and imports was discussed in a paper by the author in July 1961, entitled 'New Zealand Tomorrow'. (Cyclostyled: copies held in Department of Statistics.)

WAR ECONOMY

INCREASED IMPORTS

Increased Imports

Many New Zealanders looked forward to an end to import controls after the war. A resolution passed at the annual conference of the Associated Chambers of Commerce in 1944 said: 'That this Conference is emphatically of the opinion that import control and selection as at present practised is unnecessary, restrictive to trade, and as such is undesirable. It therefore urges immediate revision, and abandonment at the earliest possible moment.' This attitude was supported by many consumers, who found their freedom of choice restricted, and by farmers, in whose view import controls, by protecting inefficient local industries, raised costs.

Leathem summed up the Labour attitude to import controls, as it was expressed by Mr Nash in 1944: ²

'The Minister of Finance, the Hon. Walter Nash, in the budget debate in the House of Representatives on September 7, 1944, declared that the Government would continue its policy of import control to the full "as long as it was in the interests of the people of the country." The Government's view was that import control would lead to a maximum of trade but abandonment of control would bring about the complete disintegration of manufacturing. It would impede rehabilitation and result in want, for imports would consist of the goods which were most profitable rather than those which were most needed. The Government would maintain the operation of the import policy as long as the **Labour Party was on the Treasury benches. Later in the debate Mr Nash stated that he had told the Bretton Woods Conference that New Zealand would not give up import control but the Government might consider keeping money available for other approved transactions.'**

One part of the statement by Mr Nash is worth careful assessment.

He said: ¹

‘... We are of the opinion that the carrying-out of a policy of import control and exchange control will lead to the maximum of trade.’

Certainly import controls, since the war, have not stopped New Zealand from importing more than her export earnings could pay for; and in recent years she has been trying hard to enlarge these earnings, so as to be able to import still more. ²

Though the scope and intensity of import controls have varied greatly since their inception in 1938, they have never been completely removed.

Labour stayed in power until December 1949, and kept a very wide range of items under licence. However, import arrivals were allowed to rise considerably from their depressed wartime level. They increased by one-sixth in 1946, but in each of the years 1947, 1948, and 1949 they were 80 per cent in volume above the low level of importing in 1945. This brought the post-war volume of importing to 14 per cent above the average of 1937, 1938, and 1939. ³

² **Samuel Leathem**, ‘Industry and Industrial Policy’, published in *New Zealand*, edited by **Horace Belshaw**, pp. 179–80.

¹ *NZPD*, Vol. 266, p. 183, 7 September 1944.

² This of course ignores possible effects of import controls on industrial efficiency and hence on ability to produce most effectively for export or in substitution for imports.

³ As a long-term trend, volume of imports has increased by 3 per cent a year (based on 1928–29 to 1960–61).

WAR ECONOMY

AN ATTEMPT TO REMOVE IMPORT CONTROLS

An Attempt to Remove import Controls

The National Party came into office in December 1949, with promises of fewer controls and more competition. It was helped into power by a growing body of opinion that some of the wartime economic controls were being retained for too long. It set about progressively dispensing with import controls as opportunity offered. Circumstances were most propitious. Export earnings in 1950 were £36 million higher than they had ever been before. In 1951, they rose a further £64 million, largely as a result of exceptionally high wool prices, caused by international tension over **Korea. Export earnings were now over four times as high as their average for the three years before the war.**

Many import items were freed from quantitative control in July 1950, ⁴ and other relaxations were made during the year. The Minister of Industries and Commerce announced, in April 1951, that within the last sixteen months import restrictions had been lifted from 503 of the total of 998 items previously controlled. ⁵ Imports flooded in. In 1950 they were £38 million above 1949, in 1951 £87 million above, and in 1952 £109 million above. Meantime, export prices had fallen slightly and earnings in 1952, though still exceptionally high, were only £93 million above those of 1949. It was not enough to pay for all the extra imports. The Government took fright and resorted to an exchange allocation system for imports, to be operated by the **Reserve Bank.**

Imports dropped back for a while. Reserves built up quite well in the middle of 1954, though imports were then rising again. At the end of 1954 the exchange allocation system for importers was terminated.

Though it had restrained imports, exchange allocation had not been a satisfactory system. Any form of restriction of imports meant that some items would be cut back, others preferred. The importer naturally

preferred the items which yielded him the highest profit, and tended to spend his exchange allocation accordingly. If asked to bring in other items which the Government regarded as essential, the importer expected to be given more funds.

When the exchange allocation scheme came to an end, import controls over a limited range of goods continued. Less than a quarter of private imports were now subject to control. ¹

With no extensive controls, imports again soared in 1955, and in December the net overseas assets of the banks fell to £65 million, £29 million lower than in December 1945.

In the election year 1957, there was another flush of importing. Export earnings, though high, were not high enough, and net overseas assets fell to the perilously low level of £46 million in December 1957.

To make the situation look worse, export prices were falling quite rapidly in late 1957 and early 1958.

Labour, elected to office in December 1957, reintroduced a comprehensive import licensing system, but by June, usually a high month, overseas assets had risen to only £53 million. Export prices were staying low and overseas earnings for 1958 were to be £26 million below 1957.

⁴ An announcement in this month freed 326 items worth £45 million.

⁵ *New Zealand Official Yearbook*, 1950, p. 948.

¹ *New Zealand Official Yearbook*, 1955, p. 277.

WAR ECONOMY

THE 1958 BUDGET

The 1958 Budget

Even with all feasible overseas borrowing and realisation of assets, it seemed, early in 1958, to be unlikely that import controls could hold imports within the country's ability to pay. In an endeavour to reinforce their action, by reducing demand, the Government raised taxation steeply in the 1958 Budget, thereby making it the most noteworthy post-war budget, and earning it the epithet, 'The Black Budget'. The budget statement said: ¹

'The Government recognises that a comprehensive import control policy, while contributing materially to a solution of our balance of payment difficulties, will not by itself correct the basic cause of those difficulties. It must be supplemented by fiscal and monetary measures designed to establish a more stable economy in which the demand for imports more closely approximates our ability to pay for them.'

It was unfortunate that this courageous fiscal measure was overdone. The extra taxation was more than was needed to secure internal stability. Demand for local production was considerably reduced, as well as demand for imports; and the rate of growth of New Zealand industry started to slow down. Considerable public resentment was aroused.

That this was unfortunate for the Government was apparent at the 1960 elections, when the 1958 Budget played an important part in putting it out of office. But this in its turn, by discouraging other governments from taking adequate corrective action in similar circumstances, may well prove unfortunate for New Zealand as a whole.

Though this cannot be taken as conclusive evidence, the effects of the 1958 Budget seem to show that if full employment and increasing

levels of domestic production are to be maintained, it will be extremely difficult to restrain the level of importing by relying solely on measures to reduce internal demand. Long before the demand for imports has fallen sufficiently, the declining demand for local production will have pushed up unemployment to levels which, in the political situation now existing, would not be regarded as tolerable.

Unless measures to reduce demand are to be discriminatory, so that they restrain demand for imports before they restrain demand for local production, the attack on over-importing from the demand side will not be effective.

¹ Parliamentary Paper B-6, Financial Statement, p. 10.

WAR ECONOMY

IMPORT CONTROLS CONTINUE

Import Controls Continue

Import controls were more severe in 1959, and thereafter varied in intensity. The National Party, when it was returned to office in 1960, did not show the same enthusiasm to be rid of import controls as it had in 1949, but circumstances were different. This time it was met by two years of comparatively low export earnings in 1961 and 1962.

Chart 84 shows changes in the value of exports and imports since the war.

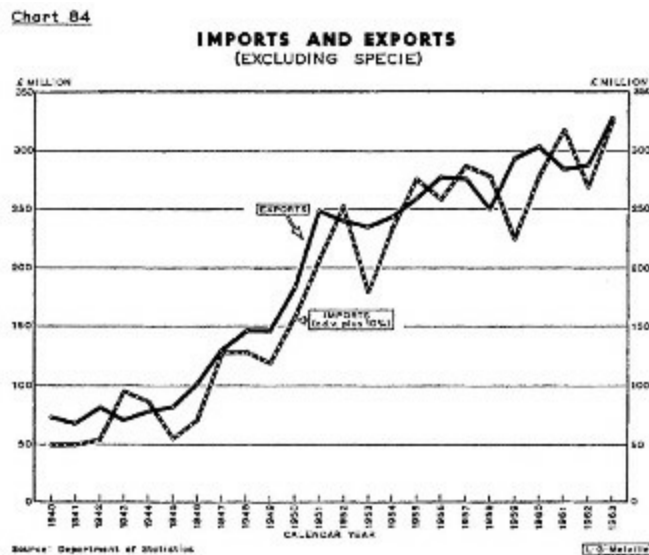


Chart 84
IMPORTS AND EXPORTS
(EXCLUDING SPECIE)

WAR ECONOMY

THE RISING COST OF INVISIBLES¹

*The Rising Cost of Invisibles*¹

In the last decade attempts to relax or remove import controls have been hindered by a quite rapid rise in debt servicing, travel payments and other 'invisible' items of overseas expenditure, which have taken an increasing portion of New Zealand's export earnings. To some extent the method of administration of import licensing has aggravated this difficulty.

Concentration of external economic policy thinking on changes in the net overseas assets of the banking system has led to 'no-remittance' imports receiving favoured treatment for import licensing. A formal no-remittance scheme for holders of overseas funds was first introduced in 1950, but has since been modified. There has also been a tendency to favour imports in some other cases, where suppliers will not expect payment through normal banking

¹ 'Invisibles' is here used to mean payments becoming due to foreigners, excluding those for imports or capital transfers, less payments due by foreigners, excluding those for exports or capital transfers. Important items are transport costs (£22 million net in 1962-63), investment income (£26 million) and travel (£11 million).

channels, for example, where a capital investment is being built up in New Zealand. Successive governments have failed to realise that this tends gradually to build up a net outflow of invisible payments to people in other countries, who have thus established claims on the New Zealand economy.

The rising cost of overseas transport and the increasing tendency of New Zealanders to travel have also added to the net outflow of invisible

items which have to be paid for in the main out of export earnings, so restricting the amount available to meet the cost of imports.

It was inevitable, in any case, with the overseas deficit on current account averaging £25 million a year between 1951–52 and 1962–63, that the cost of servicing of private and government debt ¹ would build up quickly.

Chart 85 shows changes in the net deficit on invisibles expressed as a percentage of export earnings.

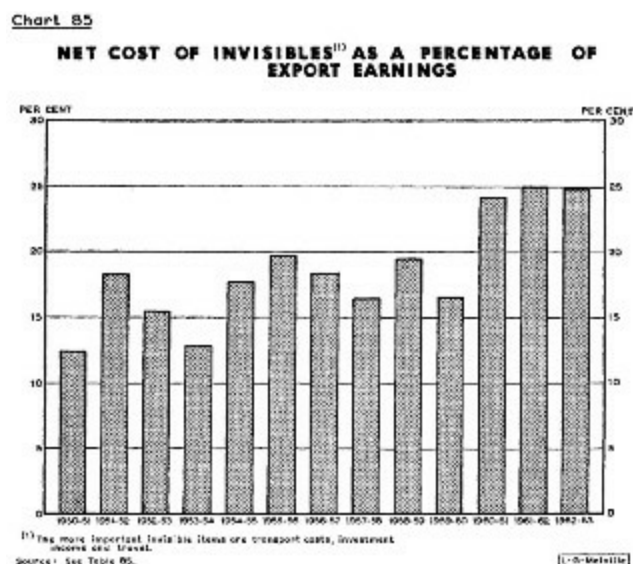


Chart 85

NET COST OF INVISIBLES ⁽¹⁾ AS A PERCENTAGE OF EXPORT EARNINGS

In the three years 1950–51 to 1952–53 the net cost of invisibles averaged 16 per cent of export earnings. ² In 1960–61 to 1962–63 it averaged 25 per cent. By far the most significant change was in

¹ Including dividends accruing to overseas shareholders, interest on loans, etc.

² Comparable earlier figures are not available.

income on investments, ¹ where New Zealand in 1950–51 paid £7 million more than she received, and in 1962–63 £26 million more. This

item represented 3.3 per cent of all export earnings in 1950–51 and 8.4 per cent in 1962–63. Much of the benefit of wartime restraints on overseas borrowing had been lost.

¹ Including private investment as well as government and local authority loans. The figures refer to accruals rather than to actual remittances. A good deal of private investment income is reinvested in the country where it is earned.

WAR ECONOMY

SUBSIDISED AGRICULTURE AND DUMPED SURPLUSES

Subsidised Agriculture and Dumped Surpluses

New Zealand finished the war with an assured market in **Britain for her meat and dairy produce. There was no such assurance for wool, but the huge surpluses which had accumulated during the war were disposed of, by 1952, with surprisingly little difficulty. ²**

The assurance of unrestricted duty-free entry into the British market was not the perfect guarantee it may have seemed.

After the war there was an increasing tendency for industrial countries to subsidise their agriculture. Policies of protectionism, national security and income-support all influenced governments in this direction, ³ but, in particular, food shortages in many European countries during World War II were a powerful influence strengthening the desire for self-sufficiency in agriculture. New support programmes emerged; existing programmes were intensified. Consequently, European countries sold agricultural products on their domestic markets at high prices, and the surpluses from subsidised farming tended to be dumped on the British market at much lower prices, seriously impairing the value of this market to New Zealand. Moreover, British agriculture also was being heavily subsidised, pushing up domestic production.

Alternative markets were sought; but the **United States, too, was subsidising her agriculture. High retail prices restricted local consumption there, and huge stocks of surplus dairy produce, much of it sold abroad at subsidised prices, tended to restrict the expansion of normal world trade.**

The United States did take some care not to cause direct damage to existing commercial markets, ⁴ but a significant indirect effect on them was inevitable.

In 1958 prices of dairy produce in **Britain** reached their lowest point since 1946. New Zealand, as an economic producer of dairy produce, was being placed at a serious disadvantage by dumpers of subsidised produce. Searching desperately for new markets for her farm produce, New Zealand felt the need to enter into trade negotiations with other countries. The 20 per cent preference she was giving to many British imports, under the **Ottawa** agreement, restricted her ability to make reciprocal concessions to other countries which would accept her farm products. In 1959 a revised trade agreement with **Britain** gave New Zealand greater freedom to vary margins of preference. Actually, very little use has been made of this freedom.

By the end of 1957, most of New Zealand's meat and dairy produce exports to **Britain** were assured of duty-free and quota-free entry until 1967.¹ The 1959 agreement left these arrangements unchanged.

However, in 1961, New Zealand's anxiety about the dumping of European surplus butter on the **United Kingdom** market led her to agree to a system of quotas, and these have since been maintained with variations according to the stocks and prospective supplies. New Zealand's quota has not been restrictive, but there has on occasions been a feeling that other quotas may have let in rather too much dumped butter, in the interests of keeping the price of butter low on the **United Kingdom** market.

² Reference has been made in

Chapter 19 to the British agreement to purchase New Zealand's surplus of dairy products and meat until 1948, and to the special arrangements made to dispose of the huge stocks of wool which had accumulated during the war.

³ These three influences are mentioned by P. Lamartine Yates (*Food, Land and Manpower in Western Europe*, pp. 256–8), but the particular emphasis given in this paragraph is not his.

⁴ The 1961 Economic White Paper at p. 13, said: 'However, the practice of prior consultation which the **United States** observes, and the efforts it makes to avoid harming the trade of third countries, have helped to safeguard normal trade from some of the disruptive effects of surplus disposal operations.'

¹ Quota-free entry for meat was assured by an undertaking in 1952, and for dairy produce by an undertaking in 1957.

WAR ECONOMY

THE EUROPEAN ECONOMIC COMMUNITY

The European Economic Community

Of even more concern to New Zealand was **Britain's** determined attempt, in 1961 and 1962, to gain admission to the **European Economic Community (EEC)**. ²

Economic co-operation among war-devastated European countries after the war had been encouraged by a **United States** scheme for post-war assistance for European recovery, the Marshall Plan, which made it a condition for **United States** aid that there should be 'some agreement between the countries of **Europe** as to the requirements of the situation and the part these countries will themselves take.' The Organisation for European Economic Co-operation (OEEC) resulted in 1948. ³ While EEC may not have been a direct result of OEEC, the habit of economic discussion and compromise which OEEC facilitated no doubt made it easier to find a concensus of opinion in the Treaty of Rome, which set up the EEC in 1957.

Initially the EEC plans for a common market in agriculture, with regulated intake from outside countries, and managed prices at a level much higher than those at which New Zealand could supply, had been seen merely as a threat to hinder New Zealand access to EEC countries. Then it became apparent that the EEC policy of encouraging agriculture and keeping its retail prices high would result in considerable surpluses being dumped on **United Kingdom** and other markets. ¹ Finally came the possibility of British entry to the market.

The growing economic strength of the Community ² was increasing the threat that, while **Britain** stood outside, EEC exports might compete too effectively against British exports to other countries, and that the EEC common market would result in discrimination against British sales to its members.

New Zealand could be vitally affected if **Britain** gained entry. Though aimed at freeing trade barriers between member countries, the EEC policy was to have a managed market for agricultural products, with rigid definition of the terms of entry of produce from other countries. Unrestricted duty-free entry, which New Zealand enjoyed for most of her food products in **Britain**, seemed incompatible with this type of market.

Unless Britain's entry to EEC could be negotiated on very special terms, it seemed that, far from having unrestricted entry for her food products, New Zealand would have to compete with other non-EEC suppliers for whatever extra was needed after EEC production had been completely absorbed. ³ Moreover, the common agricultural policy was likely to increase agricultural surpluses in a number of member countries.

The hope of British negotiators was to gain admission without sacrificing New Zealand interests, ⁴ but this would not be easy.

There was, in fact, a good deal of relief in some quarters in New Zealand when General De Gaulle, ⁵ in January 1963, bluntly terminated the negotiations for **Britain's** entry.

² Comprising Belgium, **France**, **Holland**, **Italy**, Luxembourg, and West Germany; and moving towards free trade in industrial goods between member countries, common agricultural policies, a uniform tariff on imports from outside, and closer integration of economic and political policies.

³ A useful summary of developments is given in Parliamentary Paper A-21, 1961, the *European Economic Community*.

¹ However, increasing demand, as a result of rising living standards in EEC countries would have a countering effect, as was becoming apparent for some commodities by 1964.

² Considerably faster than in the looser European Free Trade

area (EFTA) to which **Britain** belonged.

³ *New Zealand Economic Survey*, 1961, pp. 8, 9.

⁴ Other Commonwealth countries were affected too, but none so vitally as was New Zealand.

⁵ President of **France** since 1958.

WAR ECONOMY

DIRECTION OF TRADE

Direction of Trade

Under these and other influences there has been a steady change in the direction of New Zealand trade. Though Britain has remained by far New Zealand's most important trading partner, her share of both exports and imports declined during the war and has continued to decline up to 1964.

Chart 86 shows changes in the direction of trade.

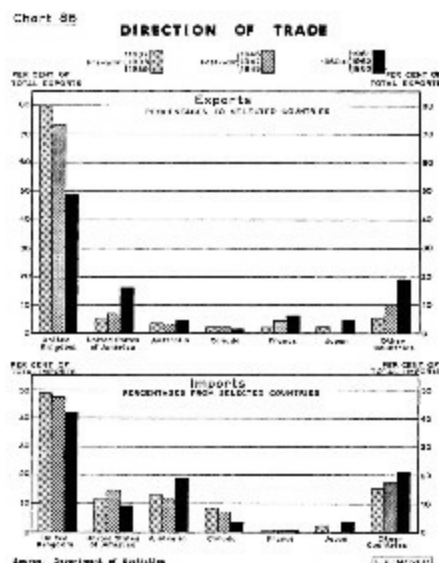


Chart 86
DIRECTION OF TRADE

Britain was taking four-fifths of New Zealand's exports before the war; in the early 1960s she received less than half. The most important increase in exports was to the **United States of America**, which took 5 per cent before the war and 16 per cent in the early 1960s. A large proportion of New Zealand's exports of beef and veal have been diverted to the **United States**.

Initially the decline in supplies from **Britain** was a war effect, though many other influences have contributed to it since. The ground which

Britain lost as an exporting nation when she was bearing the major part of the Allied war burden could not be fully recovered. **Britain** supplied 49 per cent of New Zealand's imports before the war and 42 per cent in the early 1960s. There were many changes over this period, but a large offsetting increase came from **Australia**, which supplied 13 per cent before the war and 19 per cent in the early 1960s.

A number of smaller trading partners have become increasingly important; for example, **Japan** took 2.3 per cent of New Zealand's exports before the war and 4.5 per cent in the early 1960s; while **France's** share increased from 2 per cent to 6 per cent.

New Zealand's favourable trade balance with **Britain** is offset by a substantial annual deficit in invisible transactions, particularly freights and debt servicing. **Australia**, which has moved up to be the second most important supplier of imports, takes a much smaller proportion of New Zealand's exports. Here, there is no offsetting balance of invisible items and the continued substantial trading deficit with **Australia** has become a question of concern to many New Zealanders.

New Zealand has been slowly increasing her trade with Asian countries, and hopes to continue to do so as their living standards rise. **Japan**, in particular, is taking growing quantities of New Zealand meat.

WAR ECONOMY

NEW ZEALAND FARMING DEVELOPMENTS

New Zealand Farming Developments

War, and the need to meet an urgent demand for extra food with a depleted labour force, gave a boost to farm mechanisation; a boost which could become effective because the **United States of America** was prepared to supply tractors and other farm equipment under Lend-Lease. Since the war mechanisation of farming has continued rapidly. There were, for example, more than four times as many agricultural tractors in use in 1961 as in 1946.

The return of large numbers of trained pilots from the war encouraged the expansion of air passenger and goods transport and the use of aircraft for topdressing, seed sowing, spraying, and other farm operations. Often the initial experimental work was done by the **RNZAF** as the scale of military operations declined. For example, the **RNZAF** 'undertook extensive trials in the dropping of fertiliser from the air in 1948 at the request of the **Soil Conservation and Rivers Control Council**, which was interested in aerial topdressing as a means of improving hill pastures and checking and preventing soil erosion. The **RNZAF** experiments were successful. The interest of the farming community was aroused and private firms began operating commercially in 1949.'¹ The steep nature of much of New Zealand's farming country has made operations from the air of special importance, and in some areas no other method would have been practicable.

Of importance also has been the increasing tendency for more and more farm work to be done on a contract basis. This no doubt enables the available labour to be used much more efficiently, and brings into use specialised equipment which would not be economical unless available to a large number of farmers.

Many other improvements in methods have been developed from

research activities of the Agriculture Department, the **Department of Scientific and Industrial Research**, and the universities. As an example, soil research has revealed the nature of the deficiency in some types of soil, which were of little use before the war, and the addition of trace elements has brought in considerable new areas as productive farm land.

Since the war the trend to increased emphasis on sheep farming has continued. ² In 1962 there were 25 sheep for each dairy cow in milk compared with 20 in 1945. In the general shortage of labour which has prevailed, the smaller labour needs for sheep farming may have had an influence here; but price movements also have favoured meat and wool more than dairy produce.

Recently, increasing emphasis has been placed on beef production, in response to encouraging markets in **North America**. Beef cattle numbers in New Zealand increased over 50 per cent in the decade up to 1962. In response to agitation by **United States** cattlemen, New Zealand and **Australia** agreed in 1964 to limit the rate of increase in their supplies, but in spite of this, the prospect for beef looks encouraging.

Between the 1951 and 1961 censuses, the farm labour force decreased by 4 per cent. In the same decade the volume of farm production increased by 31 per cent, so that the quantities of farm products produced per person engaged ³ increased by more than a third. This represents a 3 per cent a year increase in output per person, which is rather better than was achieved in manufacturing, and gives some indication of the effectiveness of mechanisation and improvements in methods and management on farms.

¹ *New Zealand Official Yearbook*, 1963, p. 369.

² See also Chart 42, p. 198.

³ Census counts of persons working on farms include the farmer as well as any labour he engages. Persons engaged in farm

contracting, including aerial topdressing, etc., are included under farming.

The manufacturing labour force increased by 30 per cent in the same period and the increase in its overall volume of production was naturally much larger than in farming; it was 69 per cent. Farm output could have been increased faster by using more labour, but it is open to question whether the increase would have been proportionately faster. Neither has research yet disclosed whether extra labour in farming would have yielded a greater return in output than it did in manufacturing. ¹

Chart 87 compares farming and manufacturing growth.

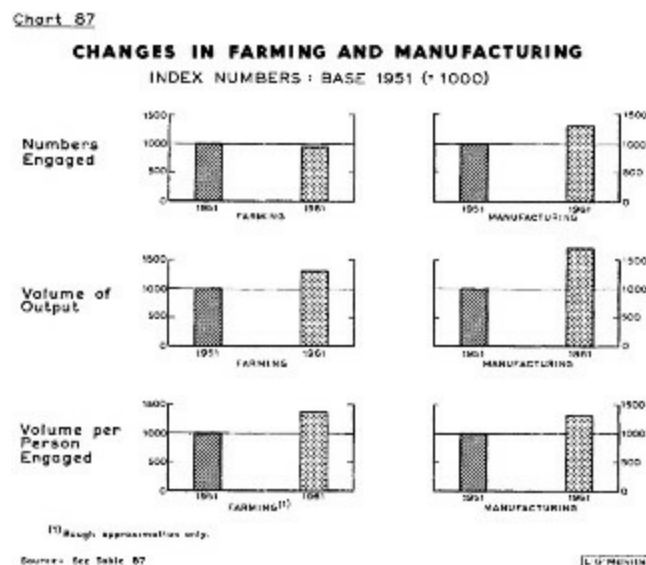


Chart 87
CHANGES IN FARMING AND MANUFACTURING
INDEX NUMBERS: BASE 1951 (= 1000)

¹ The question is not answered by comparing the per person outputs in farming and manufacturing. These are overall averages, whereas what one needs to know is whether 100 extra persons in farming add more than 100 extra persons in manufacturing. In economic terminology, marginal changes need to be studied. Moreover, it is net outputs which matter rather than gross.

WAR ECONOMY

FARM INDUSTRY RESERVES

Farm Industry Reserves

At the end of the war, there was some £5 million in the Dairy Industry Stabilisation Account, and over £9 million in the Meat Industry Reserve Account. No such account existed for wool. By 1956 the sum in the Dairy Industry Stabilisation Account had increased to over £27 million and the sum in the Meat Industry Reserve Account to nearly £41 million. There now existed also a Wool Commission Account with a balance of £29 million, which had been built up largely from profits from the sales of the accumulated surplus of wool at the end of the war.

¹ All these funds were held for the benefit of the industries concerned. ²

The meat and wool reserves were now being used to maintain minimum prices which were fixed at the beginning of each season. If meat export prices fell lower, deficiency payments were made to producers. If wool prices at auction fell below the fixed minimum prices, the Wool Commission would buy in at these prices. In 1963 the meat reserves stood at £44 million, and the wool reserves at £35 million. Dairy reserve funds, on the other hand, had disappeared, and the account was £4 million in deficit. ³

The rapid exhaustion of the dairy funds started in the 1956–57 season, when nearly half the surplus which had accumulated over thirteen seasons was paid out. The following season the other half was used up, and the account ran into deficit. Low prices in these two seasons were a major cause of the run down, but another important cause was the failure of those who fixed payout rates to realise that the high butter prices in 1953, 1954 and 1955 might be temporary, and should therefore be used to build up the funds, as a protection against later price falls.

The relative growths of the three funds is influenced by the fact that

dairy produce prices have not risen so much as have prices of meat and wool since the war; but the administration of the Dairy Produce Account has not been particularly farsighted in the past decade.

Though none of the funds, as at present administered, is ideal as an economic stabiliser, the depletion of the dairy funds leaves this industry in particular, as well as the economy as a whole, much too vulnerable to overseas price fluctuations. ⁴

¹ It had been agreed that the profit or loss arising from the transactions of the Joint Organisation in the wool of any Dominion would be shared equally between the **United Kingdom** and the Government of that Dominion. The New Zealand share went to the Wool Commission Account, for the benefit of the industry in New Zealand.

² In the case of the dairy and meat funds, this had been agreed in June 1943, as part of the economic stabilisation scheme. See also **p. 325**.

Farmers, workers and others, who acquiesced in the restraint of their wartime incomes by the economic stabilisation scheme, all had the benefit of roughly matching restraints which the scheme put on the prices of their personal expenditures. Those who incurred business costs also received the benefit of stabilisation restraints on these costs. Farmers were unusual in having industry stabilisation funds against which the expenses of stabilising their business costs could be charged. However, whereas workers and others emerged from the war with only their personal savings to show for their wartime restraints, farmers had also, available for their joint benefit, the industry reserves. The equity of these end results needs more examination than the author has so far been able to give it.

³ There is expected to be a small credit balance at the end of the 1963–64 season.

⁴ It would be in the long-run interests of the farmers themselves, as well as of the economy as a whole, to have more rigid rules for

the administration of all these funds, e.g., rules which would make it very difficult for those for the time being in control to avoid adding substantially to the funds in good seasons. This is discussed more fully in the author's 1959 paper, *Income Distribution in a Trading Nation*. (Cyclostyled: copies with the Department of Statistics.)

WAR ECONOMY

BACKLOGS OF CONSTRUCTION WORK

Backlogs of Construction Work

For over a year, during the war, building and construction resources were switched almost entirely to defence construction work, and for most of the war, defence construction had a high priority. When private building was not being deliberately deferred to transfer resources to defence construction, it was under controls of varying intensity, designed to conserve scarce materials. Normal public works were cut back also.

A formidable backlog of deferred construction work resulted, much of it requiring urgent attention by the time the war finished.

The **Ministry of Works** report said in 1946: ¹

‘Six years’ arrears of housebuilding, factory building, school-building, hydro-electric construction, bridge renewals, land development, highway maintenance, and many other forms of peacetime building and construction must now be made up before the physical capital of the Dominion can be properly related to her expanded and redistributed population.’

This was an exaggeration. Some private work and normal public works had been done during the war ² and a good deal of defence construction work could be turned to peacetime uses after the war. ³ It is probable that two and a half years’ arrears of normal building and construction work would be nearer the mark. ⁴

A statement in the 1947 Budget also needs careful assessment: ⁵

‘Moreover, it is estimated that about £150,000,000 is required to provide for the accumulated needs for capital goods necessarily postponed on account of war circumstances.’

This figure may have been intended to include producers' equipment⁶ and consumer durables as well as deferred building and construction work and maintenance work; but it would still be on the high side.⁷ Probably the war was taking too much of the blame for arrears of electricity generating capacity.⁸

¹ Parliamentary Paper D-3, p. 3.

² See for example Chart 51, p. 243, for housing construction, and p. 435 for electricity construction.

³ Hospital buildings, warehouses and the like particularly, but see also pp. 521- 2.

⁴ This is the author's assessment based on information in this volume. While rough, it gives a reasonably correct impression of the accumulation.

⁵ Parliamentary Paper B-6, Financial Statement, p. 28. Actually the figure is introduced in a paragraph dealing with importing, but the order of the deferred imports of capital goods would be very much smaller.

⁶ However, many factories had been kept well equipped for war purposes, and the equipment, unless highly specialised, could be put to peacetime uses. Farm tractors and other equipment had been imported under Lend-Lease.

⁷ The author would estimate all these at not more than £130 million.

⁸ See also

Two and a half years of deferred building and construction work was a formidable hurdle after the war, when building materials and equipment were still in short supply.

Shortages of materials forced the Government to maintain many wartime building controls for some years, so that high priority construction work would not be held up. Skilled tradesmen were also scarce. The 1948 **Ministry of Works** statement said: ¹

‘The excess of demand over the present potential of the works industry has necessitated a continuance of the Building Control Emergency Regulations beyond the special needs of war for which they were originally designed.’

Controls extended to commercial buildings as well as dwellings, and might restrict size and materials to be used, or debar construction altogether if it was not considered essential. Construction of private garages, for example, was not usually approved.

Supplies of timber, steel, and cement were all below requirements when the war ended, but, of all building materials, corrugated roofing iron caused the most problems. In 1948 the Building Controller wrote: ²

‘The supply position in regard to galvanised iron is particularly bad, and on the latest information available it is apparent that there is little likelihood of any reasonable improvement being made in the position for the next year or so. Supplies in sight at present from all sources are less than 6,000 tons per annum, whilst the estimated annual demand is 25,000 tons.’

Timber shortages were largely overcome by 1948, but steel and cement shortages persisted for a few years longer.

Difficulties with corrugated iron continued, and not until June 1953 could it be used for roofing without a special permit. The removal, in

August 1954, of other restrictions on the use of corrugated iron ³ brought to an end the last of the wartime controls over building materials.

As materials became more freely available and controls slackened off, there was a dramatic rise in the building and construction labour force, which, between 1951 and 1956, increased by over 40 per cent.

¹ Parliamentary Paper D-1, p. 1.

² Memorandum of 20 May 1948 to Minister of Works. Copy on **Ministry of Works** file 36/1. The answers to a question in the 1961 population census revealed that 71 per cent of dwellings then had corrugated iron roofs. The proportion would have been higher in earlier years.

³ Building Construction Control Notice No. 35 of 2 August 1954.

Chart 88 shows labour force changes since 1947.

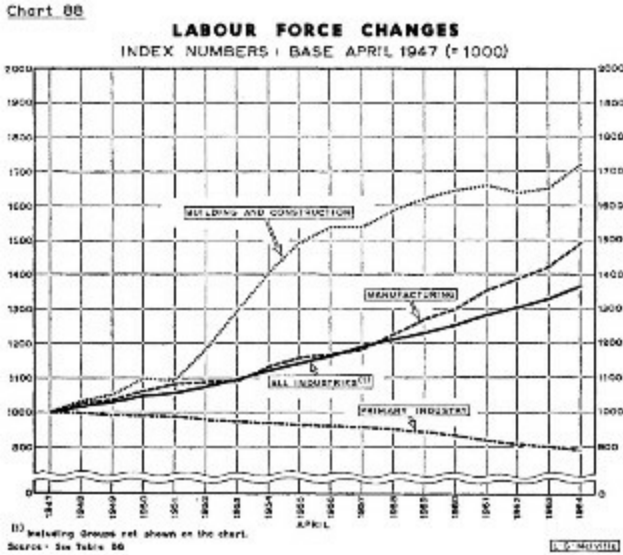


Chart 88
LABOUR FORCE CHANGES
INDEX NUMBERS: BASE APRIL 1947 (= 1000)

By 1956 some of the wartime backlogs of construction work had

been overcome, and the industry settled down to a more normal rate of growth.

Controls over construction of the larger commercial buildings continued until 1956; from this year there were no building controls, except the normal requirement to obtain a building permit from a local authority.

Controls had been lifted as soon as the industry had sufficient capacity to cope with the demand for construction work. Building costs were helping to reduce demand. In the recovery years, pressure of demand on the restricted capacity of the industry had caused building costs to rise considerably faster than most other costs. They have tended to remain high up to 1964.

Building and construction and other capital formation was taking 22 or 23 per cent of the national output ¹ in the years 1952–53 to 1957–58. It had averaged 16 per cent in 1937–38 and 1938–39, which were at the time considered to be high years for public works expenditure and housing.

¹ The gross national product is used as denominator.

Much of the remaining arrears of capital works was overtaken by 1958, ¹ and the building and construction labour force settled down to a much more sedate rate of growth, which was soon less than the average rate for other industries. However, capital formation continued to take close to 22 per cent of the national output.

¹ Though there was a surge in dwelling construction in the early 1960s, caused by the 1958 scheme for 3 per cent home-building loans and the 1959 scheme for capitalisation of the family benefit (which was mentioned on p. 545).

WAR ECONOMY

ELECTRICITY SHORTAGES WORSEN

Electricity Shortages Worsen

Completion of a new generating unit at Arapuni at the end of 1946 was a signal for attempts to reduce some of the more drastic power restrictions which had been imposed in the **North Island during the war.**

In April 1947 the first of the three units at Karapiro went into operation and more of the restrictions were removed or relaxed. But the shortages were far from overcome, and later in the year power restrictions had to be reimposed in the **North Island.**

In 1947 the **South Island had its first experience of electric power rationing.**

Hydro-electric construction was still hampered by shortages of imported components. Other countries had to overtake war backlogs, and some had to replace installations destroyed in the war. Countries supplying electrical equipment were unable to cope with the demand. Delivery of plant and materials tended to become worse for a time, and in New Zealand new stations could not be brought in fast enough to cope with the ever-increasing demand for power.

In only five years, between 1944–45 and 1949–50, demand for power increased by over a third.

In fact, the situation was to become much worse for some years, and one authority wrote: ² ‘In the early years of the last decade 1950 to 1955 an all time record was established in the frequency and severity of power shortages in both Islands.’ In considering generalisations of this sort, it must be remembered that, when supplies are tending to lag behind demand, the severity of shortages in particular years depends on the variations in rainfall in the catchment areas. Actually there was a more severe shortage in the **South Island early in 1956, with a 40 per cent cut**

in rationing for several weeks, and in 1958 in the **North Island**, where a 15 per cent cut applied for almost ten months.

Maraetai, the most powerful of the **North Island** stations, came into operation in 1952 and by 1954 was generating 180,000 kW. ¹ The North Island was free of controls from the middle of 1953 until the middle of 1955.

Hydro-electric generating potential had been developed faster in the **North Island**, to meet the faster increase in demand there. While there was still a large unused potential in the **South Island**, it was becoming progressively more difficult to find suitable new hydro-electric power sources in the **North Island**. By the middle 1950s it was generally recognised that development of all possible **North Island** hydro-electric sources would not satisfy the growing demand for much more than another decade. In 1956 the Government decided to investigate the practicability of a 25-mile submarine cable to link the North and **South Island** systems.

Meantime, other types of power generator were being developed. The geothermal steam station at **Wairakei** started generating with its first turbine in 1958. In the same year, the Meremere coal-burning station, its costs kept low by the supply of coal on an aerial cableway from open-cast mines, started feeding in power.

The last of the electric power restrictions were lifted at the end of 1958. Arrears had been overtaken and a demand for power 2½ times what it had been at the end of the war was being satisfied. Demand was still increasing 8 per cent a year. ²

By 1964 the inter-island cable had become part of the established programme. Construction of the shore links was well under way and the cable was expected to be in use at part capacity in 1965. ³ Moreover, this was now thought to be necessary if there were not to be further power shortages in the **North Island**.

² G. H. Battersby, *Some Aspects of Electrical Supply in New Zealand*, Canterbury Chamber of Commerce Bulletin No. 456, December 1962.

¹ Half its ultimate capacity.

² See also Chart 72, p. 426.

³ Benmore, in the **South Island**, was expected to be in operation in 1965 and would, until the completion of Manapouri, be the largest New Zealand station.

WAR ECONOMY

TRANSPORT DEVELOPMENTS

Transport Developments

The war tended to emphasise the importance to New Zealand of its railway service, which, though it might in normal times lose ground to more versatile methods of transport, could carry a vastly increased load in times of national emergency.

Transport in New Zealand has been relatively expensive, both in terms of capital development and operating costs,⁴ but efficient transport is essential for a successful war effort or for a satisfactory rate of economic development in peace.

⁴ Transport Department paper, *Transport in New Zealand*, p. 14.

While the predominantly undulating nature of much of the surface of New Zealand has always been a serious hindrance, the position has been eased by the early construction of an efficient railway service, which has done much to reduce costs to producers. A White Paper on road transport said:¹

‘Much of New Zealand's economic development has been due to its extensive railway network (some of it in areas where traffic was never likely to be plentiful) and to the railways' willingness to carry large volumes of goods at low prices.’

After making a major contribution to New Zealand's war effort the **Railways Department** has adopted a progressive policy, suitable for the period of recovery and development of the economy.

Reference has been made to the influence of wartime coal shortages in hastening **Railways Department** investigations into alternative sources of power for locomotives.² By March 1949, 51 locomotives had

been converted to oil burners and 46 miles of suburban lines had been electrified. In the early 1950s the much more efficient diesel locomotives were introduced, and by 1961 were hauling over 40 per cent of the freight traffic. ³ By this time, too, 68 miles of suburban railways had been electrified.

To provide an improved service between **North Island** and **South Island** stations, the **Railways Department** developed the Rail-Air Freight Service, connecting the rail services of the North and the **South Island** with a quick-loaded air freight plane service. First flights in this service were made by the **RNZAF** in 1947, and the service is now maintained by private contractors to the **Railways Department**.

In August 1962 the Department introduced a roll-on ferry service for rail and road vehicles from **Wellington** to Picton, with the m.v. *Aramoana*. The service has proved so successful that a second vessel is to be added. ⁴

For passengers, air travel was becoming increasingly popular. Air services had been reduced during the war. New planes were not available for civilian work and some of those already in use were commandeered. ⁵ However, improvements in plane design and development of aerodromes and navigational aids during the war, and the availability of large numbers of trained pilots among ex-servicemen, facilitated post-war development of civil aviation. In 1961–62, 842,000 passengers were carried; more than five times as many as in 1947–48.

¹ Parliamentary Paper H-40 A, *Transport of Goods by Road in New Zealand*, 1959, p. 7.

² p. 415.

³ Estimated in gross ton-miles.

⁴ This decision was announced in December 1963.

⁵ See also p. 415.

Increasing use of the private motor car was a more important influence arresting the growth in numbers of railway passenger journeys.

¹ After a decline, the number of journeys in the early 1960s, at rather more than 26 million a year, was about the same as in the late 1940s. ²

There had been no significant improvement in the standard of waterfront work in New Zealand during the war, in spite of the introduction of co-operative stevedoring. In fact in some ways, for example because of the incidence of 'spelling', ³ the position was less satisfactory after the war than before.

After a prolonged dispute on the waterfront in 1951, a Royal Commission inquired into the waterfront industry and reported in 1952. As a result, the Waterfront Industry Act 1953 set up new controlling bodies, in the hope of increasing efficiency in loading and unloading vessels. Some improvement followed.

Nevertheless, the waterfront, through which passed each year two-fifths of all the goods New Zealand produced and two-fifths of all she consumed, remained, as it had been during the war, one of the weakest links in the New Zealand economy.

A 1964 report on New Zealand overseas trade contained tables which showed 'that the time spent by ships in New Zealand discharging outward cargo and loading homeward cargo was of the order of 50 per cent more than the time taken to handle the corresponding cargo in the [United Kingdom](#) and elsewhere.' ⁴

¹ Motor-car registrations numbered 200,000 in 1946 and 553,000 in 1962. The use of municipal public passenger transport systems was also seriously affected by the increasing number of private motor cars.

² i.e., after the large-scale military movements had finished.

³ See also pp. 398–9.

⁴ *New Zealand Overseas Trade, Report on Shipping, Ports, Transport and Other Services*, Producer Boards' Shipping Utilisation Committee, New Zealand, and New Zealand Trade Streamlining Committee, **London**.

WAR ECONOMY

ECONOMIC POLICY CO-ORDINATION

Economic Policy Co-ordination

After the demise of the **Organisation for National Development** in 1945, Cabinet had become once more the sole co-ordinator of economic policy and its administration.

Early in the 1950s, a sub-committee of Cabinet was formed to deal with economic and financial policy. Primarily, it was an advisory body to Cabinet. It might sometimes decide minor questions, but would take all major policy issues back to Cabinet for decision.

Attached to this sub-committee was a committee of permanent heads known as the **Officials Committee** whose function was to give advice on economic and financial policy matters which were referred to it by the Cabinet sub-committee, or which on occasion it might raise itself. The **Officials Committee** was supported by a working party of officials from the Departments concerned.

With slight changes in name but with very little change in function, this Committee system has persisted through various changes of Government up to 1964, and has provided a satisfactory working arrangement for the co-ordination of economic and financial policy. In comparing it with the **Organisation for National Development** it must be remembered that the Committee has not been asked to make economic plans on so comprehensive a scale as was visualised by that organisation. Because it has had virtually no administrative functions, but purely the function of giving advice to a Cabinet committee, the **Officials Committee** as a Departmental co-ordinating body has been successful. ¹

With some notable exceptions, ² Government economic policy since the war has been very short-term, concentrating on the more

immediately pressing issues, and influenced unduly by the periodical wooing of the voters at election time. Fluctuations in the restrictiveness of import licensing and bank advance controls were very much affected by this latter influence.³ These two controls have carried much of the load in the administration of external and internal economic policy respectively.

¹ Policy decisions made by Cabinet through this system have been carried out by the administering department concerned, under the control of its Minister who is responsible to Cabinet, not by the Officials Committee.

² For example, electric power planning.

³ See also p. 548, [note 1](#).

WAR ECONOMY

ECONOMIC DEVELOPMENT

Economic Development

Adequate power for industry is of paramount importance for economic development; a fact which has been brought home forcibly to governments in New Zealand by wartime and post-war power shortages and, more recently, by the estimated requirements of such bulk users of power as the projected iron sands industry and aluminium smelting plant.

In New Zealand, particularly, with its labour force now fully employed, there is no way to achieve lasting increases in living standards unless more is produced by each worker. This requires that workers have the use of more power, better equipment, and improved methods. A reasonable amount of attention has always been given to these requirements; they have had increasing emphasis in recent years; and they need more still.

Taking a long view, the New Zealand economy, subject to year to year fluctuations in production which are comparatively small by international standards, increases its output in real terms by 4 per cent a year. This is done with a labour force which increases at about 2 per cent a year, so that, on average, the volume of production per unit of labour increases 2 per cent each year. In spite of periods when supply has lagged behind demand, the power available increases rapidly. Electric power supplies for all purposes increase by 8 per cent a year. Equipment and methods are steadily improved, and New Zealand annually sets aside between a fifth and a quarter of everything she produces to be used for capital purposes.

In the 1960s some economists have suggested that the rate of growth of the New Zealand economy is too slow. Certainly spectacular rates of growth have been achieved since the war in countries such as

Japan and Western Germany. These are partly, but by no means entirely, post-war recoveries aided by large injections of foreign capital. They have occurred in countries whose economies were much more seriously affected by the war than was New Zealand's. However, it seems that post-war recovery efforts may have given an increase in momentum to the rate of growth of these countries, whereas New Zealand's rate of growth emerges from the recovery period at about the same as it was before the war. On the other hand, one can say that New Zealand's 4 per cent a year increase in volume of production, though quite slow by comparison, has been sustained with comparatively little change for a very much longer period.

Since the war, Governments have given increasing attention to the direction which economic development should take. Their thinking has, however, been considerably influenced by the tendency for the country to be in almost continual balance of payments difficulties. Because the causes of this tendency have been expressed alternatively as over-importing or under-exporting, ¹ too much attention has been devoted to finding ways to encourage those who export or those who can produce in substitution for imports. Insufficient care has been taken to ensure that the industries concerned are in other respects suitable for economic preference.

Far too little attention has been given to other more fundamental causes of over-importing: the too-eager desire of the people to increase their current living standards, or alternatively, the failure of the domestic economy to increase its production fast enough.

In spite of the considerable attention given to the direction of development, no clear-cut public statement of government policy for economic development, or for the very closely related subject of import control, has ever emerged. The vague outline of import policy in the 1958 budget statement was not untypical: ²

¹ Of course export prices have had a full share of the blame too.

‘The new licensing schedule was designed to give priority to imports of essential foodstuffs, raw materials, machinery, and medical requirements and to allocate the balance of the available funds on the most reasonable possible basis.... A paramount objective of Government policy in this field will be to maintain the supply of those imports which are essential and on which employment depends.’

In 1963 the [Tariff and Development Board](#) was required to examine criteria for industrial development. After hearing evidence, it produced and discussed a list of sixteen criteria, but failed to recommend any order of priority. Without an indication of the relative importance of the criteria, they are thought-provoking, but of very limited use as a guide to administration.

Important new industries established since the war have been the rapidly expanding manufactures of pulp, paper, and cardboard from New Zealand's exotic pine plantations. Exports of forest products, including logs, increased in value from £250,000 in 1946 to £10 million a year in the early 1960s, a most welcome boost to export earnings.

An oil refinery started operations in 1964 and will come into full production by 1967, and an aluminium-smelting works is proposed, based on the power potential of the [Lake Manapouri](#) – Te Anau area. Both these industries will use imported raw materials. It is also hoped to have an iron and steel industry, using large quantities of electric power, to produce iron and steel from New Zealand iron sand.

The rapid expansion of manufacturing is illustrated in Chart 87, on page 560. What was this doing to New Zealand's dependence on overseas trade? Condliffe wrote: ¹ ‘Behind the shelter of exchange controls and war shortages, a great number of local manufacturing industries were developed. They increased the need for imported equipment and materials.’ But Sinclair saw a change developing. He wrote: ² ‘Twenty

years of State encouragement of industry has produced a more “balanced” economy, but it has not produced a single important export nor reduced the country's dependence on imports. The bulk of imports, today, however, consist not of manufactured goods but of equipment and raw materials for local industry.’

Condliffe went on to point up the change more precisely; he wrote: ³ ‘The proceeds of ... exports were used at first to buy imported goods for direct consumption, but in the last two

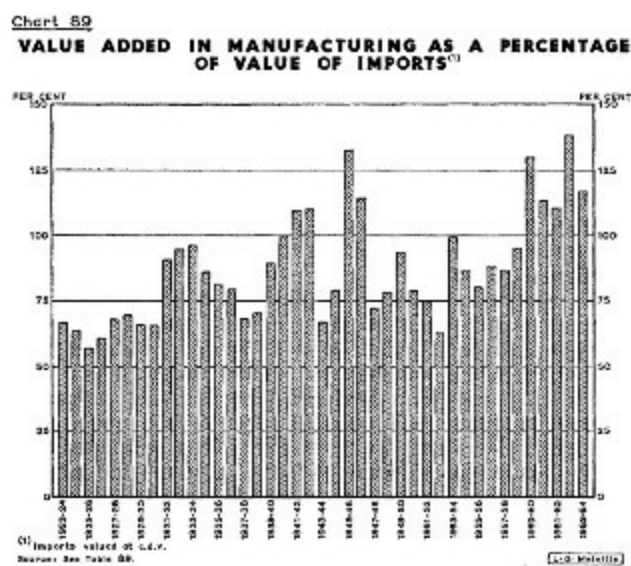
¹ **J. B. Condliffe**, *The Welfare State in New Zealand* (published 1958), p. 105.

² **Keith Sinclair**, *A History of New Zealand* (published 1959), p. 292.

³ *Op. cit.*, p. 354.

decades they have been used mainly for purchases of equipment, fuel and materials to supply a rapidly developing complex of manufacturing and servicing industries. The economic structure became increasingly diversified but still depended fundamentally on the export industries producing the purchasing power in foreign markets adequate to supply equipment and materials needed for the expanding needs of an increasing population, which demanded constant improvement in already high living standards.’

Equipment is expensive, but raw materials are often cheap compared with the value of finished products. The tendency has been to increase the value added to overseas materials by New Zealand manufacturers and to decrease the value added in exporting countries. This seems to have had significant effects on the relationship between the cost of imports and the value added in New Zealand, as Chart 89 shows.



rate of economic growth is another question.

The long-term average rate of growth, since World War I, has been about 4 per cent a year. In the period up to World War II, which included the depression of the 1930s, a fractionally higher growth rate was achieved. ² Under stress of war the rate of growth averaged 2¼ per cent, ³ but since World War II it has again averaged very close to 4 per cent a year. At this rate of growth output volumes double every 18 years.

World War II, by forcing New Zealand to depend much more heavily on her own manufactures, accelerated the tendency towards industrial development. Since the war, import controls and economic policy generally have further encouraged this tendency. The question still remains, whether, given a more carefully ordered set of criteria for development and a longer-range approach to economic policy formation, the same amount of effort would, without damage to the economy, have produced a much faster rate of growth.

¹ *Commonwealth Development and Its Financing*. 4. New Zealand, p. 9.

² Estimates for this period are necessarily very rough. This is the author's estimate based on all available volume indicators. All growth rates in this paragraph measure changes in volume, not in money values, of outputs.

³ See also p. 441.

WAR ECONOMY

NOTEWORTHY EVENTS SINCE THE WAR

NOTEWORTHY EVENTS SINCE THE WAR

<i>Year</i>	<i>Overseas</i>	<i>New Zealand Events Directly related to the War</i>	<i>Other New Zealand Events</i>
1945 (from August)	VJ Day. 15 August.	War Cabinet dissolved, 21 August. Organisation for National Development dissolved in November. Maximum rate of demobilisation in December quarter.	
1946		Very few manpower direction orders issued after January. Remaining manpower controls lifted in June. Termination of Mutual Aid Agreement with the United States of America in July. Bulk purchase contract for wool expires.	Family benefit benefit made universal in April. North-South air-freight service inaugurated. Some relaxations in North Island electric power restrictions.

1947	Gift of £10 million sterling to Britain in March.	Clothing rationing abolished.	First South Island electric power restrictions. Dairy Commission takes over marketing of dairy produce.
1948		Tea, sugar and meat rationing abolished. War assets realisation almost complete.	Return of £NZ to parity with sterling in August.
1949			Consumers' Price Index adopted. Successful RNZAF experiments in aerial top-dressing of farms. Defeat of Labour Government. National Government takes over in December, pledged to fewer controls and more competition.
1950	War begins in Korea .	Land sales control lifted. Petrol and butter rationing abolished.	Many imports freed from quantitative controls in July, further relaxations follow. Record wool prices.
1951			Wool prices even higher. They reach 240d. a pound at Christchurch . Prolonged waterfront dispute from February. Bank advances expanding rapidly.
1952		Last of wartime wool surpluses sold.	Exceptionally high importing—exchange allocation system

			introduced.
1953			Power restrictions suspended in North Island —first time in 12 years.
1954		Rehabilitation expenditure starts to diminish.	Exchange allocation scheme terminated.
1955		End of rigid system of price control.	Newsprint mills open at Kawerau .
		End of shortages of washing machines and some other consumer durables.	Rate of increase in retail prices slows down.
			Exceptionally high importing.
1956	American distributions of surplus butter and cheese cause concern in New Zealand.	Last of wartime building controls removed.	Severe power restrictions in South Island .
1957	European Economic Community created in March. Dairy produce given duty-free right of entry to Britain till 1967.		High imports. Labour Government assumes office in December.
1958	Dairy produce prices in Britain lowest since 1946. Dairy Produce Account runs into deficit.	Most wartime backlogs of construction work overtaken.	Export prices falling—overseas reserves low. Import controls brought into full force. Overseas assets down to

£53 million in usually high month of June. P.A.Y.E. taxation introduced.

Considerable increases in indirect taxation.

End of electric power restrictions.

1959 Revised trade pact gives right to reduce preference margins on New Zealand imports from Britain.

1960

Labour Government defeated in November elections.

1961 Britain seeks entry to EEC.

Court of Arbitration instructed to take productivity into account in fixing wages.

New Zealand agrees to a system of quotas for entry of butter to British market.

Bank advances expand rapidly.

1962

Cook Strait rail-ferry service commenced with *Aramoana*.

1963 Britain's bid to join EEC fails.

1964

Work starts on Cook Strait power cable.

WAR ECONOMY

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46	Breeding Ewes, Other Sheep and Dairy Cows in Milk	1937-45 214
47	Lambs Tailed and Lambs Slaughtered	1936-37 to 215 1944-45
48	Output of Principal Farm Products	1936-37 to 219 1945-46
49	Supplies of Selected Building Materials	1936-37 to 222 1938-39
50	Defence Construction Expenditure	1939-40 to 230 1945-46
51	Number of Permits Issued for New Dwellings	1937-38 to 243 1947-48
52	Numbers Engaged on Defence Construction Works	1939-45 245
53	Production of Sawn Timber	1934-35 to 247 1948-49
54	Demands of War on the National Output	1938-39 to 256 1946-47
55	Revenue from Taxation	1935-36 to 264 1945-46
56	Changes in the Public Debt	1939-48 266
57	How the National Output of Goods and Services was Used	1938-39 to 276 1946-47
58	Price and Wage Changes Before Economic Stabilisation	1939-42 286
59	Aggregate Private Income and Goods Available	1931-32 to 291 1945-46
60	Price Changes After Stabilisation	1942-45 315
61	Price and Wage Changes After Stabilisation	1942-45 323
62	The Gap Between Incomes and Goods Available (Effect of Direct Taxation)	1938-39 to 335 1947-48
63	The Gap Between Incomes and Goods Available (Effect of Indirect Taxation)	1938-39 to 336 1947-48

64	The Gap Between Incomes and Goods Available (Comparison with Saving and Lending)	1938-39 to 1947-48	339
65	Volume of Exports	1936-47	369
66	Value and Volume of Imports	1936-45	372
67	Net Overseas Assets of the Banking System	1939-46	385
68	Turn-round of Overseas Vessels	1939-49	402
69	Railways Operations	1938-39 to 1948-49	408
70	Output of Coal	1936-49	413
71	Imports of Motor Spirits	1934-48	418
72	Electricity and Gas Generated	1927-28 to 1962-63	426
73	Sales of Electric Power	1938-39 to 1945-46	433
74	Employment in Local Authorities	1937-38 to 1947-48	439
75	Volume of Production	1938-39 to 1946-47	441
76	Marriage and Birth Rates	1927-63	445
77	Male Labour at Successive Censuses	1936-56	494
78	Progress of Demobilisation	1940-47	503
79	Annual Expenditure on Rehabilitation	1943-44 to 1962-63	511
80	Index Numbers of Retail Prices	1914-63	537
81	Selected Age Groups as a Percentage of Total Population	1923-62	541
82	Social Security Benefits and Pensions	1939-40 to 1962-63	545
83	Trading Bank Advances	1939-63	547
84	Imports and Exports	1940-63	552
85	The Net Cost of Invisibles Expressed as a Percentage of Export Earnings	1950-51 to 1962-63	553
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87	Changes in Farming and in	1951-61	560

88	Manufacturing Labour Force Changes	1947-64	564
89	Value Added in Manufacturing Compared with Imports	1923-24 to 1963-64	572

WAR ECONOMY

APPENDIX I — STATISTICAL TABLES

Appendix I

STATISTICAL TABLES

TABLE 1: UNEMPLOYMENT AND ASSISTED EMPLOYMENT

Numbers of Males Registered and Numbers in Receipt of Assistance from the Employment Promotion Fund

(See also Chart 1, p. 6)

<i>Date</i>	<i>Remaining on Registers but Unplaced or Ineligible for Various Reasons</i>	<i>In Receipt of Part-time Relief Work or Sustenance</i>	<i>Working Full Time in Industry, With Assistance From the Fund</i>	<i>Total on Register and Wholly or Partly a Charge on the Fund</i>
		<i>Scheme No. 5 (Rationed Work)</i>	<i>Sustenance Without Work</i>	
1931-				
30 Jun	6,700	38,000	6,400	51,100
30 Sep	7,600	43,000	3,990	54,590
31 Dec	4,800	39,300	7,985	52,085
1932-				
31 Mar	7,000	37,000	10,520	54,520
30 Jun	7,450	43,850	17,350	68,650
30 Sep	6,540	45,100	22,010	73,650
24 Dec	5,199	43,106	20,976	69,281
1933-				

18 Mar	5,585	39,874		21,193	66,652
10 Jun	5,802	43,837		23,279	72,918
30 Sep	4,301	44,743		30,391	79,435
23 Dec	2,533	36,906	964	29,870	70,273
1934–					
17 Mar	3,273	32,555	1,793	27,766	65,387
9 Jun	3,407	33,126	2,718	23,386	62,637
29 Sep	3,272	32,731	5,569	23,189	64,761
22 Dec	2,131	28,303	5,923	20,481	56,838
1935–					
16 Mar	3,153	24,204	8,211	17,930	53,498
8 Jun	3,025	25,043	11,262	16,936	56,266
28 Sep	2,500	24,183	15,517	18,144	60,344
21 Dec	1,737	18,844	15,072	21,628	57,281
1936–					
14 Mar	1,872	15,704	14,443	22,510	54,529
6 Jun	3,200	15,486	20,352	13,996	53,034
26 Sep	2,209	13,955	25,744	7,511	49,419
19 Dec	2,037	10,085	20,164	6,786	39,072
1937–					
13 Mar	2,341	6,621	18,945	6,619	34,526
5 Jun	2,500	6,136	20,690	6,513	35,839
25 Sep	2,229	4,714	18,110 ¹	11,397	36,450
18	737	3,336	12,294 ²	13,722	30,089

Dec					
1938-					
12	1,086	2,735	10,874 ²	15,204	29,899
Mar					
4 Jun	1,301	2,812	12,608 ²	15,309	32,030
24	771	743	8,061 ²	29,057	38,632
Sep					
17	407	510	7,285 ³	27,448	35,650
Dec					
1939-					
11	649	77	7,256 ³	24,087	32,069
Mar					

Source: Adapted from Table VII, H-11A, Report of Department of Labour: Employment Division, 1939, p. 19.

¹ Includes 8,499 men unfit for employment for health or other reasons.

² Includes approximately 8,000 men unfit for employment for health or other reasons.

² Includes approximately 8,000 men unfit for employment for health or other reasons.

² Includes approximately 8,000 men unfit for employment for health or other reasons.

² Includes approximately 8,000 men unfit for employment for health or other reasons.

³ All men unfit for employment for health or other reasons.

³ All men unfit for employment for health or other reasons.

(See also Chart 2, p. 8)

—	1935	1936	1937	1938	1939	1940
January	11,179	13,791	19,307	20,165	22,824	21,198
February	11,715	14,942	20,063	20,646	22,285	19,896
March	12,127	15,831	20,102	21,268	23,068	19,603
April	12,199	16,026	20,003	21,344	22,426	18,811
May	12,212	15,946	19,692	21,188	21,825	18,171
June	11,840	15,551	19,392	21,553	21,653	17,168
July	11,569	15,542	19,016	22,358	21,268	17,181
August	11,553	15,905	18,976	23,209	21,076	17,246
September	11,560	16,884	19,082	23,661	23,120	16,665
October	12,067	18,257	19,407	23,851	23,241	16,046
November	13,234	18,878	19,962	23,331	22,231	15,668
December	13,870	19,198	20,205	23,245	21,720	15,503

These figures include, in addition to workers in the direct employ of the Public Works Department, those employed by contractors for public works and those employed by local authorities on (a) works which are financed wholly or partly by the Public Works Department, and (b) highways or road construction and maintenance. This information is available only since the beginning of 1935.

Source: *New Zealand Official Yearbooks.*

TABLE 3: PENSIONS AND SOCIAL SECURITY PAYMENTS
(See also Chart 3, p. 12)

<i>Year Ended 31 March</i>	<i>Total</i>	<i>Per Head of Population</i>	
		£	s. d.
	£(m.) PENSIONS		
1931	2.9	1	18 9
1932	3.1	2	0 8
1933	3.0	1	19 8
1934	3.1	2	0 10
1935	3.3	2	2 11
1936	3.7	2	6 9
1937	4.9	3	2 7
1938	6.3	3	19 2
1939	6.8	4	4 2

**PENSIONS AND SOCIAL
SECURITY**

1940 12.3 7 105

Source: New Zealand Official Yearbook, 1941, p. 551.

TABLE 4: CHANGES IN FARM MECHANISATION

Numbers and (in parentheses) index numbers on Base 1929 = 1000

(See also Chart 4, p. 15)

<i>Year</i>	<i>Electric Motors</i>	<i>Agricultural Tractors</i>	<i>Internal- combustion Engines</i>	<i>Milking Plants</i>	<i>Shearing Machine Plants</i>	<i>Total Sheep</i>	<i>Dairy Cows in Milk</i>
1929	13,377 (1000)	3,377 (1000)	18,489 (1000)	18,756 (1000)	6,887 (1000)	29,051,382 (1000)	1,291,200 (1000)
1930	16,456 (1230)	3,891 (1152)	19,169 (1037)	20,415 (1088)	7,394 (1074)	30,841,287 (1062)	1,389,540 (1076)
1931	22,520 (1683)	5,023 (1487)	22,136 (1197)	22,547 (1202)	8,191 (1189)	29,792,516 (1026)	1,478,940 (1145)
1932	24,164 (1806)	4,856 (1438)	20,974 (1134)	23,222 (1238)	7,853 (1140)	28,691,788 (988)	1,562,070 (1210)
1933	26,757 (2000)	4,972 (1472)	21,667 (1172)	24,350 (1298)	7,936 (1152)	27,755,966 (995)	1,703,320 (1319)
1934	29,164 (2180)	5,062 (1499)	21,758 (1177)	25,178 (1342)	7,894 (1146)	28,649,038 (986)	1,795,810 (1391)
1935	31,631 (2365)	5,349 (1584)	22,117 (1196)	25,630 (1366)	8,174 (1187)	29,076,754 (1001)	1,807,370 (1400)
1936	35,426 (2648)	5,710 (1691)	22,159 (1198)	26,181 (1396)	8,468 (1230)	30,113,704 (1037)	1,802,770 (1396)
1937	40,201 (3005)	6,585 (1950)	22,358 (1209)	27,331 (1457)	8,867 (1287)	31,305,818 (1078)	1,784,820 (1382)
1938	46,100 (3446)	8,031 (2378)	22,573 (1221)	28,192 (1503)	9,680 (1406)	32,378,774 (1115)	1,743,190 (1350)
1939	51,344 (3838)	9,639 (2854)	22,601 (1222)	28,970 (1545)	10,064 (1461)	31,897,091 (1098)	1,723,890 (1335)
1940	56,511 (4224)	11,278 (3340)	23,276 (1259)	29,564 (1576)	10,634 (1544)	31,062,875 (1069)	1,719,280 (1332)

Source: Adapted from New Zealand Official Yearbooks.

TABLE 5: IMPORTS AND EXPORTS

(Excluding Specie)
(See also Chart 5, p. 17)

Year Exports Imports (c.d.v. + 10 Per Cent)

	£(m.)	£(m.)
1929	54.9	48.7
1930	44.9	44.3
1931	35.0	26.5
1932	35.6	24.6
1933	41.0	25.6
1934	47.3	31.3
1935	46.5	36.3
1936	56.8	44.3
1937	66.7	56.2
1938	58.4	55.4
1939	58.0	49.4
1940	73.7	49.0

Source: New Zealand Official Yearbook, 1946, p. 784.

TABLE 6: NET

OVERSEAS ASSETS

OF THE BANKING

SYSTEM

(See also

Chart 6, p.

18)

1934— £(m.)

Sep 40.3

Dec 40.5

1935—

Mar 45.2

Jun 46.0

Sep 40.0

Dec 36.1

1936—

Mar 44.1

Jun 44.0

Sep 34.0

Dec 28.1

1937—	
Mar	34.4
Jun	37.0
Sep	30.0
Dec	23.7
1938—	
Mar	26.6
Jun	26.1
Sep	17.0
Dec	6.8
1939—	
Mar	9.3
Jun	9.1
Sep	8.6

Last Monday in each quarter

Source: Statistical Summaries, Reserve Bank of New Zealand.

TABLE 7: VALUE AND VOLUME INDICES OF INDUSTRIAL PRODUCTION
Index numbers: Base 1938-39 = 100
(See also Chart 7, p. 19)

<i>Production Year</i>	<i>Value of Output</i>	<i>Volume of Production</i>
1928-29	79	71
1929-30	79	74
1930-31	68	69
1931-32	58	60
1932-33	58	63
1933-34	63	65
1934-35	69	74
1935-36	79	81
1936-37	93	92
1937-38	99	97
1938-39	100	100
1939-40	113	110

Source: Report on Industrial Production Statistics, 1956-57, p. 9.

TABLE 8: RESERVE BANK ADVANCES TO THE STATE

As at (Last Week in Primary Products Marketing Other Advances to

<i>Quarter)</i>	<i>Account</i> ¹	<i>the State</i>
	£(m.)	£(m.)
1936—		
28 Sep	1.1	0.7
28 Dec	6.1	1.8
1937—		
29 Mar	6.3	0.8
28 Jun	4.8	0.2
27 Sep	4.1	0.5
27 Dec	6.2	0.9
1938—		
28 Mar	5.1	0.0
27 Jun	4.2	0.6
26 Sep	3.2	4.5
26 Dec	5.3	11.2
1939—		
27 Mar	7.4	12.0
26 Jun	6.3	10.6
25 Sep	4.6	16.3

Source: Reserve Bank bulletins.

¹ In 1936 and 1937 advances were to Dairy Industry Account.

**TABLE 9: RETAIL PRICES—ALL
GROUPS**

**Annual averages: Base
first quarter 1949 =
1000**

(See also Chart 9, p. 23)

Year Retail Price Index

1920	770
1921	781
1922	719
1923	724
1924	743
1925	758
1926	763
1927	756

1928	760
1929	758
1930	741
1931	684
1932	633
1933	600
1934	610
1935	632
1936	653
1937	697
1938	718
1939	748

Source: Prices, Wages, and Labour Statistics of New Zealand, 1954, p. 13.

TABLE 10: VOLUME OF GOODS AVAILABLE

Production Less Exports Plus Imports Valued at 1938–39 Prices

(See also Chart 10, p. 24)

Value in 1938–39 Prices

<i>Year</i>	<i>Total</i>		<i>Per Head of Population</i>	
		<i>£(m.)</i>		<i>£</i>
1928–29		110.8		75.7
1929–30		112.3		75.7
1930–31		98.6		65.6
1931–32		81.2		53.4
1932–33		85.6		55.8
1933–34		91.4		59.1
1934–35		100.1		64.3
1935–36		111.8		71.3
1936–37		129.1		81.6
1937–38		137.1		85.8
1938–39		134.6		83.3
1939–40		128.9		78.8

Source: Department of Statistics.

TABLE 11:
EXPORTS OF

APPLES AND**PEARS****(See also****Chart 11, p.****66)*****Year lb (000)*****1936 49,337****1937 37,720****1938 61,847****1939 41,906****1940 23,709****1941 425****1942 327****1943 185****1944 20****1945 159****1946 12,159****1947 239****1948 40,204****1949 21,364****1950 38,603****1951 27,944*****Source: NZ Official Yearbook, 1962, p. 1111.*****TABLE 12: MEN IN THE ARMED FORCES****(See also Chart 12, p. 71)**

1939—	<i>Number Percentage of Male Labour Force *</i>	
Sep	2,570	½
Nov	4,081	1
1940—		
Feb	12,339	2
May	13,468	3
Aug	43,253	8
Nov	60,470	12
1941—		
Feb	70,704	14
May	70,976	14
Aug	75,168	15

Nov	81,241	16
1942—		
Feb	123,910	24
May	141,079	27
Sep (Peak mobilisation)	153,587	30
Nov	142,237	28
1943—		
Feb	140,730	27
May	137,904	27
Aug	132,245	26
Nov	127,879	25
1944—		
Feb	118,033	23
May	115,932	22
Aug	103,372	20
Nov	92,084	18
1945—		
Feb	91,131	18
May	94,321	18
Aug	84,238	16
Nov	52,739	10
1946—		
Feb	24,294	5

Source: Adapted from Parliamentary Paper H-11A, Report of the National Service Department, 1946, p. 122. (See also p. 70, note 1.)

TABLE 13: NUMBERS IN NEW ZEALAND ARMED FORCES
Includes Women
 (See also Chart 13, p. 72)

1939—	<i>Home</i>	<i>Overseas</i>	<i>Total</i>
Sep	2,107	463	2,570
Nov	3,412	669	4,081
1940—			
Feb	4,690	7,649	12,339
May	5,388	8,080	13,468
Aug	27,861	15,392	43,253
Nov	33,490	26,980	60,470

1941—			
Feb	37,122	33,583	70,705
May	28,737	42,344	71,081
Aug	32,481	43,274	75,755
Nov	35,603	46,733	82,336
1942—			
Feb	76,545	48,846	125,391
May	93,078	50,119	143,197
Sep (Peak mobilisation)	107,000	50,000	157,000
Nov	103,612	43,833	147,445
1943—			
Feb	86,430	60,523	146,953
May	75,622	68,842	144,464
Aug	72,482	68,493	140,975
Nov (Highest number overseas)	65,776	70,291	136,067
1944—			
Feb	56,856	69,246	126,102
May	54,258	69,134	123,392
Aug	54,868	55,710	110,578
Nov	45,266	53,048	98,314
1945—			
Feb	41,547	55,500	97,047
May	41,976	57,927	99,903
Aug	37,431	51,889	89,320
Nov	25,199	30,636	55,835
1946—			
Feb	18,447	8,052	26,499

Source: As for Table 12.

TABLES 14 AND 15: NEW ZEALAND AND (See also Chart 14, p. 74 and Chart 15, p. 75)

Date	New Zealand Forces (Home)	United States Forces (in New Zealand)	Total
1939			
Sep	2,107		2,107
Nov	3,412		3,412
1940			
Feb	4,690		4,690

May	5,388		5,388
Aug	27,861		27,861
Nov	33,490		33,490
1941			
Feb	37,122		37,122
May	28,737		28,737
Aug	32,481		32,481
Nov	35,603		35,603
1942			
Feb	76,545		76,545
May	93,078		93,078
Sep	107,000	15,000	122,000
Nov	103,612	15,065	118,677
1943			
Feb	86,430	21,153	107,583
May	75,622	43,487	119,109
Aug	72,482	33,072	105,554
Nov	65,776	30,355	96,131
1944			
Feb	56,856	27,000	83,856
May	54,258	24,048	78,306
Aug	54,868	3,055	57,923
Nov	45,266	1,486	46,752
1945			
Feb	41,547		41,547
May	41,976		41,976
Aug	37,431		37,431
Nov	25,199		25,199
1946			
Feb	18,447		18,447

Source: New Zealand, as for Table 12. **United States**, from War History narrative, Vol. 95. **United States** figure for February 1944 not available, interpolated.

TABLE 16: EXPENDITURE THROUGH WAR EXPENSES ACCOUNT (See also Chart 16, p. 76)

<i>Financial Year</i>	<i>Expenditure Through War</i>	<i>Net National Income at</i>	<i>War Expenditure as Percentage of National</i>
-----------------------	--------------------------------	-------------------------------	--

	<i>Expenses Account</i>	<i>Factor Cost</i>	<i>Income</i>
	£(m.)	£(m.)	<i>Per Cent</i>
1939-40	7.1	211.1	3.4
1940-41	30.9	230.4	13.4
1941-42	59.8	252.6	23.7
1942-43	143.9	291.6	49.3
1943-44	163.2	326.2	50.0
1944-45	130.0	329.4	39.5
1945-46	134.6	346.9	38.8
1946-47	47.7	368.4	12.9
1947-48	17.7	413.8	4.3
1948-49	7.3	422.5	1.7
1949-50	4.3	480.5	0.9

War Expenses Account covers expenditure from 29 September 1939. The following note is taken from the 1950 *NZ Official Yearbook*, p. 478:

‘The War Expenses Account was set up under the provisions of the War Expenses Act of 1939, and all receipts and payments in connection with the war effort were dealt with through this account. Defence expenditure was previously included as an annual appropriation of the Consolidated Fund, and upon the War Expenses Account being brought into existence the unexpended balances of 1939-40 appropriations under this heading were transferred to the new account.

‘Commencing with the 1946-47 financial year, the defence vote was restored to the Consolidated Fund, and current defence expenditure has since been met from that source. Expenditure arising from or consequent upon the Second World War, however, was paid from the War Expenses Account up to and including the financial year 1949-50, when the account was finally abolished.’

Source: NZ Official Yearbooks.

TABLE 17: NUMBERS

**UNEMPLOYED OR IN SUBSIDISED
EMPLOYMENT (See also
Chart 17, p. 86)**

September 1939 19,000
December 1940 13,000
December 1941 6,000
December 1942 2,000
December 1943 1,000
December 1944 1,000
December 1945 1,000

Source: Table 22, p. 134, Parliamentary Paper H-11A, Report of the National Service Department, 1946.

**TABLE 18: NUMBER OF WOMEN PER 100 MEN
 EMPLOYED IN FACTORY PRODUCTION (See also
 Chart 18, p. 91)**

Year	Number of Women per 100 Men
1934-35	33
1935-36	33
1936-37	34
1937-38	34
1938-39	33
1939-40	36
1940-41	40
1941-42	43
1942-43	46
1943-44	44
1944-45	43
1945-46	38
1946-47	33
1947-48	32

Source: Derived from information in *New Zealand Official Yearbooks*. The coverage of factory production is that used in the war years. A revision was made in 1951-52.

TABLE 19: MANPOWER CHANGES AFFECTING CIVILIAN EMPLOYMENT September 1939 to September 1942 (See also Chart 19, p. 104)

Losses	
Men lost to the Armed Forces	—
	151,000
Women lost to the Armed Forces	—

3,000

<i>Gains</i>	
Men, previously unemployed or in subsidised employment, now absorbed into industry	+ 17,000
Natural increase in Male Labour Force	+ 18,000
Older men and others, not normally in the Labour Force, but drawn in for the war effort	+ 12,000
Natural increase in Female Labour Force	+ 6,000
Married women and others, not normally in employment, but drawn in for the war effort	+ 36,000
<i>Net Loss</i>	
Resulting depletion in numbers in Civilian Employment	— 65,000

Source: Rough estimates based on information from **National Service Department** reports and *New Zealand Official Yearbooks*.

**TABLE 20: VOLUME OF
IMPORTS Index**

Numbers: Base

1936–38 = 100 (See
also Chart 20, p.
106)

Year Index Number

1936 89

1937 106

1938 105

1939 94

1940 79

1941 70

Source: New Zealand Official Yearbooks.

**TABLE 21: TERMS OF
TRADE Index**

Numbers: Base

1936–38 = 100 (See
also Chart 21, p.
107)

Year Index Number

1936 97

1937 105
1938 99
1939 96
1940 92
1941 83
1942 76
1943 69
1944 73
1945 79
1946 79
1947 84
1948 91
1949 97
1950 123

Source: New Zealand Official Yearbooks.

TABLES 22, 23, 24, 25, 26: IMPORTS AND RESERVE STOCKS (See also Charts 22 to 23, 24, 25, 113-18)

<i>Commodity 1936</i>	<i>1937</i>	<i>1938</i>	<i>1939</i>	<i>1940</i>	<i>1941</i>	<i>Reserve Stocks at Sep 1939</i>	<i>Res</i>
IMPORTS							
Corrugated roofing iron (000 tons)	21	20	13	16	9	3	4
Gypsum (000 tons)	9	10	15	25	33	28	7

Sugar, raw (000 tons)	82	85	75	85	90	78	15	Cor Pur and in I Col Sug Ref Co.
Rock phosphate (000 tons)	218	283	264	352	346	256	80	Sup Brit Phc Cor and at e wor thro cou
Motor spirits (million gallons)	87	86	102	104	94	66	28	All
			MOTOR VEHICLES 2					
Motor vehicles licensed ² (Number)	228,247	255,748	280,327	307,931	317,526	313,087		
Trailers (included) (Number)	4,159	5,764	7,865	9,345	11,518	13,120		
Total motor vehicles less trailers (Number)	224,088	249,984	272,462	298,586	306,008	299,967		
Motor spirits imported per registered motor	388	343	375	349	306	220		

vehicle
(Gallons)

Source: Annual Statistical Reports on Trade and Shipping, and War History narrative, Vol. 90.

¹ Calendar Years.

² At 31 March.

TABLE 27: GOODS AVAILABLE FOR USE IN NEW ZEALAND Local Production as Percentage of Total (See also Chart 27, p. 122)

<i>Year</i>	<i>Percentage Locally Produced</i>
1936-37	57.0
1937-38	56.2
1938-39	56.0
1939-40	65.0
1940-41	70.6
1941-42	72.3
1942-43	71.5
1943-44	64.2
1944-45	65.8
1945-46	69.8
1946-47	65.6
1947-48	58.8
1948-49	63.4
1949-50	61.2

Source: New Zealand Official Yearbooks.

TABLE 28: LEND-LEASE AND RECIPROCAL AID (See also Chart 28, p. 126)

<i>Year Ended</i>	<i>Lend-Lease Aid From United States of America</i>	<i>Reciprocal Aid Provided by New Zealand</i>
1941-42	Nil	Nil
1942-43	26.8	7.0

1943– 44	32.5	24.5
1944– 45	24.2	26.7
1945– 46	21.0	22.8
1946– 47	Nil	Nil

Source: New Zealand Official Yearbook, 1946, p. 826.

TABLE 29: IMPORTS FROM PRINCIPAL SUPPLYING COUNTRIES Value in £(m.) (See also Chart 29, p. 127)

<i>Year</i>	<i>United Kingdom</i>	<i>Canada</i>	<i>Australia</i>	<i>United States of America</i>
1937	27.9	4.6	6.6	7.0
1938	26.5	4.9	7.2	6.9
1939	23.1	4.4	6.4	5.6
1940	22.9	2.9	7.8	6.1
1941	21.2	3.1	8.0	9.1
1942	20.2	2.4	8.1	15.0
1943	32.6	11.5	10.2	34.9
1944	34.9	5.1	10.3	27.9
1945	19.8	5.1	8.3	13.1
1946	34.2	4.7	10.4	11.7

Source: Annual Statistical Reports on Trade and Shipping.

TABLE 30: IMPORTS CLASSIFIED BY PURPOSE Value of Main Items Only: £(000) (See also Chart 30, p. 130)

<i>Year</i>	<i>Manufacturers' Materials</i>	<i>Producers' Equipment</i>	<i>Consumers' Goods</i>	<i>Unclassified (Including Munitions and War Stores)</i>
1937	16,002	7,225	15,365	206
1938	14,653	7,873	14,765	310
1939	14,811	6,727	10,936	606
1940	20,270	5,917	7,621	2,578
1941	20,253	5,792	6,965	5,293
1942	18,262	4,643	7,380	14,449
1943	25,161	6,678	5,798	46,655
1944	26,015	9,672	7,448	29,882
1945	26,003	8,531	6,802	3,710

1946 30,241 12,547 11,714 487

Source: Report on External Trade Statistics, 1957.

TABLE 31: SUPPLIES OF RUBBER AND TYRES (See also Chart 31, p. 141)
IMPORTS

<i>Year</i>	<i>Imports of Raw Rubber (millions of lb)</i>	<i>Imports of Tyres and Tubes ² (millions of lb)</i>	<i>Value of All Rubber Imports £(000)</i>
1937	0.2 ¹	8.5	1,450
1938	0.2	7.8	1,378
1939	1.1	7.2	1,342
1940	1.7	5.6	1,306
1941	2.6	7.8	1,708
1942	0.5	1.5	544
1943	0.4	3.7	827
1944	0.8	3.4	826
1945	0.9	4.3	1,156

RESERVE STOCKS

Reserve stocks of raw rubber in September 1939 were estimated at 600,000 lb. Stocks of tyres and tubes not known.

RECLAIMED RUBBER

Reclaimed rubber, including tyres, estimated at 13,440,000 lb. from 1940 to 1945 or (say) 2,240,000 lb. a year on average.

Source: Annual Statistical Reports on Trade and Shipping, and War History narrative, Vol. 90.

TABLE 32: WHEAT SUPPLIES (See also Chart 32, p. 143)

<i>Year</i>	<i>Imports</i>	<i>Local Production (Wheat for threshing)</i>	<i>Total</i>
	<i>Millions of bushels</i>		
1936	0.4	8.9	9.3
1937	1.6	7.2	8.8
1938	3.4	6.0	9.5
1939	3.1	5.6	8.7
1940	1.9	8.0	10.0
1941	1.1	8.3	9.4

1942	2.6	8.7	11.2
1943	2.1	9.8	11.9
1944	3.7	7.2	10.9
1945	4.9	7.0	11.9
1946	3.0	5.4	8.5
1947	5.0	5.4	10.4
1948	6.3	4.5	10.8

Source: New Zealand Official Yearbooks.

² Over 1 3/4 in. in diameter (including parts for same).

¹ Estimated. Value only recorded.

TABLE 33: PERSONS ENGAGED IN MANUFACTURING (See also Chart 33, p. 150)

<i>Year</i>	<i>Persons Engaged</i>	<i>Year</i>	<i>Persons Engaged</i>
1929-30	82,861	1938-39	102,535
1930-31	77,914	1939-40	108,722
1931-32	68,697	1940-41	113,999
1932-33	68,921	1941-42	117,214
1933-34	72,651	1942-43	114,590
1934-35	79,358	1943-44	117,864
1935-36	86,588	1944-45	122,414
1936-37	96,401	1945-46	128,208
1937-38	102,344	1946-47	134,435

Source: Statistical Reports on Factory Production.

TABLE 34: CHANGES IN THE MANUFACTURING LABOUR FORCE (See also Chart 34, p. 155)

<i>Year</i>	<i>Males</i>	<i>Females</i>	<i>Total</i>
1938-39	76,868	25,667	102,535
1939-40	80,167	28,555	108,722
1940-41	81,706	32,293	113,999
1941-42	82,042	35,172	117,214
1942-43	78,529	36,061	114,590

1943-44 81,693 36,171 117,864

1944-45 85,861 36,553 122,414

1945-46 92,701 35,507 128,208

Source: Annual Report on Factory Production Statistics, 1946-47 and 1947-48, p. ix.

TABLE 35: OVERTIME WORKED IN FACTORIES Average hours per head yearly (See also Chart 35, p. 157)

<i>Year</i>	<i>Males</i>	<i>Females</i>	<i>Year</i>	<i>Males</i>	<i>Females</i>
1934-35	31	26	1941-42	101	62
1935-36	35	34	1942-43	172	77
1936-37	36	30	1943-44	199	90
1937-38	41	27	1944-45	188	87
1938-39	45	23	1945-46	141	68
1939-40	50	44	1946-47	137	51
1940-41	62	55	1947-48	137	41

Source: Statistical Reports on Factory Production.

TABLE 36: NUMBERS ENGAGED IN WOOLLEN MILLS (See also Chart 36 p. 162)

<i>Year</i>	<i>Males</i>	<i>Females</i>	<i>Total</i>
1936-37	1,108	1,684	2,792
1937-38	1,100	1,648	2,748
1938-39	970	1,436	2,406
1939-40	1,276	1,704	2,980
1940-41	1,543	1,946	3,489
1941-42	1,725	2,130	3,855
1942-43	1,743	2,302	4,045
1943-44	1,759	2,291	4,050
1944-45	1,717	2,107	3,824
1945-46	1,670	1,887	3,557
1946-47	1,694	1,304	2,998
1947-48	1,571	1,099	2,670

Source: Statistical Reports on Factory Production.

TABLE 37: NUMBERS ENGAGED IN CLOTHING FACTORIES (See also Chart

37, p. 164)

<i>Year</i>	<i>Males</i>	<i>Females</i>	<i>Total</i>
1936-37	1,771	10,057	11,828
1937-38	1,900	11,016	12,916
1938-39	1,883	10,387	12,270
1939-40	1,953	11,248	13,201
1940-41	1,994	12,495	14,489
1941-42	1,868	12,725	14,593
1942-43	1,725	12,103	13,828
1943-44	1,719	11,560	13,279
1944-45	1,932	12,240	14,172
1945-46	2,216	12,609	14,825
1946-47	2,625	12,800	15,425
1947-48	2,907	13,664	16,571

Source: Statistical Reports on Factory Production.

**TABLE 38: NUMBERS ENGAGED IN
FOOTWEAR MANUFACTURE (See also
Chart 38, p. 165)**

<i>Year</i>	<i>Males</i>	<i>Females</i>	<i>Total</i>
1936-37	1,675	1,433	3,108
1937-38	1,663	1,418	3,081
1938-39	1,634	1,441	3,075
1939-40	1,931	1,800	3,731
1940-41	2,278	2,106	4,384
1941-42	2,394	2,226	4,620
1942-43	2,369	2,144	4,513
1943-44	2,467	2,051	4,518
1944-45	2,541	2,028	4,569
1945-46	2,570	2,090	4,660
1946-47	2,931	2,036	4,967
1947-48	3,105	2,154	5,259

Source: Statistical Reports on Factory Production.

**TABLE 39: TEXTILES, CLOTHING, AND FOOTWEAR MANUFACTURE
Volume of Production for Selected Items ¹
Index Numbers, Base: Average of 1936-37 to 1938-39 = 100
(See also Chart 39, p. 166)**

	<i>Tweed and Cloth</i>		<i>Flannel</i>		<i>Blankets</i>		<i>Hosiery</i>	
	<i>Yd</i>	<i>Volume Index No.</i>	<i>Yd</i>	<i>Volume Index No.</i>	<i>Pairs</i>	<i>Volume Index No.</i>	<i>Dozen Pairs</i>	<i>Volum Index No.</i>
Average of 1936-37 to 1938-39	1,405,180	1000	661,328	1000	155,779	1000	120,716	1000
1939-40	1,915,010	1363	1,186,940	1795	209,721	1346	150,060	1243
1940-41	2,464,370	1754	1,241,308	1877	244,025	1566	192,256	1593
1941-42	2,670,275	1900	1,599,058	2418	243,704	1564	209,809	1738
1942-43	2,830,037	2014	1,632,175	2468	277,846	1784	162,537	1346
1943-44	3,008,241	2141	1,327,957	2008	257,811	1655	169,679	1406
1944-45	2,948,202	2098	1,009,540	1527	201,517	1294	156,267	1295
1945-46	2,632,486	1873	843,673	1276	142,381	914	133,452	1106
1946-47	2,183,851	1554	604,370	914	135,101	867	87,991	729
1947-48	2,247,002	1599	459,712	695	124,667	800	86,067	713

¹ Continued next page.

Source: Adapted from Annual Reports on Factory Production Statistics.

Boots and Shoes (Adults)

Shirts

Trousers

Other Clothing Production Including

	<i>Pairs</i>	<i>Volume Index No.</i>	<i>Dozen</i>	<i>Volume Index No.</i>	<i>No.</i>	<i>Volume Index No.</i>	<i>Military Orders</i> ² £	<i>Volu Ind No.</i>
Average of 1936- 37 to 1938- 39	1,711,102	1000	178,512	1000	968,298	1000	1,332,220	1000
1939- 40	2,060,086	1204	168,503	944	971,678	1003	1,800,081	1265
1940- 41	2,179,313	1274	165,252	926	885,575	915	2,429,250	1545
1941- 42	2,336,591	1366	135,667	760	639,050	660	2,578,854	1495
1942- 43	2,455,704	1435	85,342	479	693,181	716	2,953,181	1605
1943- 44	2,292,233	1340	143,384	803	636,021	657	2,837,231	1415
1944- 45	2,166,708	1266	173,776	973	985,992	1018	2,588,120	1235
1945- 46	1,962,310	1147	182,616	1023	992,058	1025	2,583,266	1205
1946- 47	2,001,779	1170	148,414	831	913,988	944	2,760,230	1265
1947- 48	2,143,412	1253	207,270	1161	1,220,587	1261	3,740,233	1685

² Suits, dresses, underclothing, and overcoats are excluded from this item, as well as trousers and shirts.

³ Volume taken as value corrected for price changes, using clothing, etc., subgroup of retail price index.

Source: Adapted from Annual Reports on Factory Production Statistics.

TABLE 40: VOLUME OF MANUFACTURING PRODUCTION**Index Numbers, Base: 1938-39 = 100****(See also Chart 40, p. 179)**

<i>Year</i>	<i>Volume of Production</i>	<i>Volume per Person Engaged</i>
1936-37	92	98
1937-38	97	97
1938-39	100	100
1939-40	110	103
1940-41	114	103
1941-42	116	102
1942-43	120	107
1943-44	125	108
1944-45	129	108
1945-46	131	105
1946-47	140	106
1947-48	151	110
1948-49	155	112

Source: New Zealand Official Yearbook, 1951-52, p. 512.

TABLE 41: AREAS**TOPDRESSED****(See also Chart 41, p.
197)*****Year Millions of Acres***

1935	2·7
1936	2·9
1937	3·3
1938	3·9
1939	4·0
1940	4·2
1941	4·6
1942	4·2
1943	3·5
1944	3·4
1945	3·6
1946	3·7
1947	4·3
1948	4·7

Source: Primary Production in New Zealand, 1957 edition, p. 109.

TABLE 42: NUMBER OF SHEEP FOR EACH DAIRY COW IN MILK
(See also Chart 42, p. 198)

<i>Year</i>	<i>Dairy Cows in Milk</i>	<i>Sheep</i>	<i>Number of Sheep per Dairy Cow in Milk</i>
1936	1,802,773	30,113,704	16·7
1937	1,784,820	31,305,818	17·5
1938	1,743,190	32,378,774	18·6
1939	1,723,893	31,897,091	18·5
1940	1,719,289	31,062,875	18·1
1941	1,759,018	31,751,660	18·1
1942	1,777,239	1	
1943	1,714,959	1	
1944	1,647,920	33,200,298	20·1
1945	1,678,943	33,974,612	20·2
1946	1,661,944	1	
1947	1,657,690	32,681,799	19·7
1948	1,713,532	32,483,138	19·0

¹ Not available.

Source: Adapted from New Zealand Official Yearbook, 1962, p. 1107.

¹ Not available.

Source: Adapted from New Zealand Official Yearbook, 1962, p. 1107.

¹ Not available.

Source: Adapted from New Zealand Official Yearbook, 1962, p. 1107.

**TABLE 43: BUTTER AND CHEESE
PRODUCTION**

(See also Chart 43, p. 202)

Production (000 tons)

June Year Butter Cheese

1936-37	177.6	91.3
1937-38	165.4	88.5
1938-39	147.9	85.3
1939-40	157.8	97.6
1940-41	165.2	122.4
1941-42	133.8	157.7
1942-43	142.0	102.8
1943-44	136.4	92.2
1944-45	154.7	103.7
1945-46	126.7	94.5
1946-47	145.7	91.6

Source: Department of Statistics.

TABLE 44: LIVESTOCK SLAUGHTERINGS

Thousands of Carcasses, and Index Numbers: Base 1936-37 to 1938-39

(See also Chart 44, p. 207)

	<i>Sheep</i>		<i>Lambs</i>		<i>Cattle</i>		<i>Calves</i>		<i>P</i>
<i>March Year</i>	<i>Number (000)</i>	<i>Index Number</i>	<i>Number (000)</i>	<i>Index Number</i>	<i>Number (000)</i>	<i>Index Number (000)</i>	<i>Number (000)</i>	<i>Index Number (000)</i>	<i>Number (000)</i>
Average of 1936-37 to 1938-39	4,020	1000	9,778	1000	569	1000	1,054	1000	1,000
1939-40	4,439	1104	10,160	1039	600	1054	1,060	1006	826
1940-41	5,151	1281	12,037	1231	728	1279	1,068	1013	981
1941-42	4,633	1152	11,700	1197	631	1109	1,032	979	1,000
1942-43	4,310	1072	11,251	1151	769	1351	1,045	991	842
1943-44	4,552	1132	10,607	1085	697	1225	1,047	993	709

1944-45	4,717	1173	10,780	1102	610	1072	966	917	679
1945-46	5,440	1353	12,742	1303	739	1299	983	933	727
1946-47	5,177	1288	11,826	1209	664	1167	1,039	986	604

Source: Numbers from *New Zealand Official Yearbook, 1947-49*, p. 924. The figures include export works, abattoirs, and killings on farms.

TABLE 45: PRODUCTION AND EXPORTS OF MEAT

(*Note:* Supplies under Reverse Lend-Lease were not recorded as Exports)

(See also Chart 45, p. 208)

<i>June Years</i>	<i>Production (Tons) ¹</i>	<i>Exports (Tons)</i>
Average of 1936-37 to 1938-39	457,000	274,000
1939-40	519,000	334,000
1940-41	502,000	272,950
1941-42	520,000	290,750
1942-43	521,800	254,200
1943-44	493,000	189,400
1944-45	522,000	322,150
1945-46	513,000	302,550

¹ Excluding offals.

Sources: P. W. Smallfield in *Wartime Farming* (Production), and Department of Statistics (Exports).

TABLE 46: BREEDING EWES, OTHER SHEEP AND DAIRY COWS IN MILK

Numbers and Index Numbers: Base 1937-39 = 1000

(See also Chart 46, p. 214)

<i>Total Sheep Number</i>	<i>Breeding Ewes Number</i>	<i>Index No.</i>	<i>Other Sheep Number</i>	<i>Index No.</i>	<i>Dairy Cows in Milk Number</i>	<i>Index No.</i>
1937 31,305,818	19,332,077	984	11,973,741	981	1,784,820	1020
1938 32,378,774	19,663,866	1001	12,714,908	1041	1,743,190	996
1939 31,897,091	19,960,299	1016	11,936,792	978	1,723,893	985

1940	31,062,875	19,727,657	1004	11,335,218	928	1,719,289	982
1941	31,751,660	20,030,933	1019	11,720,727	960	1,759,018	1005
1942	¹	¹		¹		1,756,654	1003
1943	¹	¹		¹		1,714,959	980
1944	33,200,298	20,549,716	1046	12,650,582	1036	1,647,920	941
1945	33,974,612	20,865,858	1062	13,108,754	1074	1,678,943	959

Source: Numbers from New Zealand Official Yearbooks.

¹ Not available.

¹ Not available.

¹ Not available.

¹ Not available.

¹ Not available.

¹ Not available.

TABLE 47: LAMBS TAILED AND LAMBS SLAUGHTERED
(See also Chart 47, p. 215)
(Millions)

<i>Year</i>	<i>Lambs Tailed</i>	<i>Lambs Slaughtered</i>
1936-37	16·9	9·4
1937-38	17·3	10·0
1938-39	16·9	10·0
1939-40	17·2	10·2
1940-41	18·4	12·0
1941-42	18·5	11·7
1942-43	18·9	11·3
1943-44	18·4	10·6
1944-45	19·5	10·8

Source: New Zealand Official Yearbooks.

TABLE 48: OUTPUT OF PRINCIPAL FARM PRODUCTS**Quantities and Index Numbers: Base 1936-37 to 1938-39 = 1000****(See also Chart 48, p. 219)**

Season	Meat		Wool		Butterfat	
	Tons ¹	Index (No.)	(Million lb) Greasy	Index (No.)	(Million lb)	Index (No.)
Average of 1936-37 to 1938-39	457,000	1000	309	1000	431	1000
1939-40	519,000	1136	310	1003	431	1000
1940-41	502,000	1098	331	1071	466	1081
1941-42	520,000	1138	345	1117	437	1014
1942-43	521,800	1142	340	1100	407	944
1943-44	493,000	1079	330	1068	387	898
1944-45	522,000	1142	372	1204	432	1002
1945-46	513,000	1123	365	1181	373	865

Sources: P. W. Smallfield in *Wartime Farming* (Meat), and *New Zealand Official Yearbooks*.

¹ **Excluding offals.**

TABLE 49: SUPPLIES OF SELECTED BUILDING MATERIALS**(See also Chart 49, p. 222)**

	£(000)		
	New Zealand Production 1936-37 to 1938-39	Annual Averages Imports 1937-39	Total
Sawn Timber	2,868	408	3,276
Cement	605	16	621
Earthenware and asbestos slates, pipes, tiles, etc.	239	67	306
Bricks	175	4	179
Brass, copper and iron pipes		605	605
Mild steel bar, bolt, and rod		518	518
1 Iron and steel angle, tee, channel and girder		225	225
Galvanised corrugated iron		428	428

Galvanised flat iron	166	166
Window glass	39	39

Source: New Zealand Official Yearbooks, Factory Production Statistics, and Statistical Reports on Trade and Shipping.

TABLE 50: DEFENCE CONSTRUCTION EXPENDITURE
(See also Chart 50. p. 230)

		£(000)	
<i>Financial Controlled by the Public</i>		<i>Expenditure</i>	
<i>Year</i>	<i>Works Department</i>	<i>Controlled by the Housing Department</i>	<i>Total</i>
1939-40 ¹	2,957	27	2,984
1940-41	3,773	124	3,897
1941-42	5,297	29	5,326
1942-43	16,799	773	17,572
1943-44	11,543	1,754	13,297
1944-45	4,850	414	5,264
1945-46	2,248	69	2,317
TOTALS	47,466	3,189	50,656

Source: Official War History of the Public Works Department, Vol. 1, p. 73, and War History narrative Vol. 24, p. 12. In Parliamentary Paper D-3, Report of the Commissioner of Works, 1946, slightly different figures are given, the total expenditure of the two Departments being recorded as £50.5 million.

¹ Small quantities may also have been produced in New Zealand.

¹ Includes all defence expenditure incurred in the financial year.

TABLE 51: NUMBER OF PERMITS ISSUED FOR
NEW DWELLINGS

(See also Chart 51, p. 243)

<i>Year</i>	<i>Private Government Total</i>		
1937-38	4,877	2,167	7,044
1938-39	5,601	4,110	9,711
1939-40	5,299	4,387	9,686

Mar	7,700	750	8,450
Jun	6,600	950	7,550
Sep	5,200	900	6,100
Dec	4,100	750	4,850
1944			
—			
Mar	3,400	400	3,800
Jun	2,300	350	2,650
Sep	2,000	125	2,125
Dec	1,300	125	1,425
1945			
—			
Mar	1,500	125	1,625
Jun	1,200	125	1,325
Aug	1,100	125	1,225

Source: Figures are approximations derived from a chart in the **Official War History of the Public Works Department, Vol. 2, p. 318.**

**TABLE 53: PRODUCTION OF SAWN
TIMBER**

(See also Chart 53, p. 247)

March Year Board Feet (000)

1934-35	243,782
1935-36	293,075
1936-37	305,889
1937-38	322,766
1938-39	316,716
1939-40	335,991
1940-41	342,208
1941-42	324,474
1942-43	341,515
1943-44	350,748
1944-45	340,133
1945-46	344,723
1946-47	353,955
1947-48	428,114
1948-49	464,545

Source: Parliamentary Paper C-3, Annual Report of the Director of

Forestry, 1954.

TABLE 54: DEMANDS OF WAR ON THE NATIONAL OUTPUT
(See also Chart 54, p. 256)

<i>Financial Expenditure Year</i>	<i>Through War Expenses Account</i>	<i>Gross National Product</i>	<i>War Expenses as a Percentage of Gross National Product</i>	<i>Remainder of Gross National Product</i>
	£(m.)	£(m.)	Per Cent	Per Cent
1938-39	3 ¹	232	1	99
1939-40	7	250	3	97
1940-41	31	269	12	88
1941-42	60	291	21	79
1942-43	144	335	43	57
1943-44	163	375	44	56
1944-45	130	380	34	66
1945-46	135	400	34	66
1946-47	48	426	11	89

Source: Percentages derived from Department of Statistics figures.

¹ War Expenses Account commenced in 1939-40. The 1938-39 figure is an estimate of the expenditure on similar items. See also note to Table 16.

TABLE 55: REVENUE FROM TAXATION
(See also Chart 55, p. 264)

<i>Financial Year</i>	<i>Consolidated Fund</i>	<i>Employment Promotion</i>	<i>Social Security</i>	<i>Special War Taxation</i>	<i>Total</i>
					£(000)
1935-36	21,556	3,922			25,478
1936-37	26,941	4,241			31,182
1937-38	31,664	5,135			36,799
1938-39	32,306	5,492			37,798
1939-40	32,810		9,529	2,182	44,521
1940-41	34,874		10,742	15,745	61,361
1941-42	35,162		11,064	21,937	68,163
1942-43	36,196		12,189	39,556	87,941

1943-44	42,018	13,378	45,444	100,839
1944-45	45,689	14,260	48,732	108,682
1945-46	48,371	15,167	51,417	114,955

Source: *New Zealand Official Yearbooks*. See also table on p. 263.

TABLE 56: CHANGES IN THE PUBLIC DEBT
£ (NZ)000

(See also Chart 56, p. 266)

31 March Held in New Zealand Held Overseas Total

1939	146,238	166,821	313,058
1940	164,165	168,083	332,248
1941	190,176	168,719	358,895
1942	230,780	162,932	393,711
1943	304,689	168,580	473,269
1944	366,747	169,622	536,369
1945	403,274	169,839	573,113
1946	472,750	121,636	594,386
1947	482,990	121,636	604,627
1948	494,112	107,377	601,489

Source: Department of Statistics.

TABLE 57: HOW THE NATIONAL OUTPUT OF GOODS AND SERVICES WAS USED
(See also Chart 57, p. 276)

	1938- 39	Percentage	1943- 44	Percentage	1946- 47	Percentage	Remarks
	£(m)		£(m)		£(m)		
Purchases by the people for consumption	161	69	154	42	257	68	National income it 'personal expenditure on goods and services'. 1943-44, has been deducted.
Goods and services provided by central government	30	13	29	8	40	11	Excluding defence at war. With defence at war, make

	2014/15	2013/14	2012/13	2011/12	2010/11	2009/10
and local authorities						
Defence and war	2	1	156	42	14	4
Creation of capital assets in New Zealand	40	17	28	8	65	17
Total goods and services used	233	100	367	100	376	100
Add increases in stocks	5		12		21	
Deduct goods and services received from	-6		-4		29	

national income its 'cost of government provided goods and services'. Including defence construction and also rehabilitation. Figures taken from national income its 'defence and war' and 'rehabilitation in the general government revenue account, 1999-2014'. £24m has been added in 2014/15. ¹

National income its 'gross capital formation New Zealand but excluding stock changes'.

This is the national income its 'net overseas investment'.

overseas in excess of those supplied by New Zealand				1946–47 New Zealand supplied more than she received.
Total national output of goods and services	232	375	426	National income item 'gross national product'.

Source: Adapted from Official Estimates of National Income and Expenditure.

¹ Expenditures incurred through War Expenses Account in supplying reciprocal aid are here treated as a cost of war. In the original treatment for national income purposes they were excluded, with a resultant overstatement of the residual item 'personal expenditure on goods and services'. Expenditures for reciprocal aid were a use of New Zealand resources and the incomes generated were counted in as part of national income. Hence the author's adjustment of £24m for 1943–44 in the above analysis. Other national income adjustments, such as the exclusion of subsidies (a transfer item) and loan repayments from 'defence and war' have been followed.

¹ Expenditures incurred through War Expenses Account in supplying reciprocal aid are here treated as a cost of war. In the original treatment for national income purposes they were excluded, with a resultant overstatement of the residual item 'personal expenditure on goods and services'. Expenditures for reciprocal aid were a use of New Zealand resources and the incomes generated were counted in as part of national income. Hence the author's adjustment of £24m for 1943–44 in the above analysis. Other national income adjustments, such as the exclusion of subsidies (a transfer item) and loan repayments from 'defence and war' have been followed.

TABLE 58: PRICE AND WAGE CHANGES BEFORE ECONOMIC STABILISATION
(See also Chart 58, p. 286)

Index numbers on

Converted to Base

	<i>Base: 1926–30 = 1000</i>		<i>September 1939 = 1000</i>	
<i>Quarter Retail Prices Ending</i>		<i>Nominal Wage Rates</i>	<i>Retail Prices</i>	<i>Nominal Wage Rates</i>
1939				
Sep	992	1100	1000	1000
Dec	1014	1102	1022	1002
1940				
Mar	1011	1102	1019	1002
Jun	1024	1110	1032	1009
Sep	1040	1159	1048	1054
Dec	1052	1163	1060	1057
1941				
Mar	1054	1170	1063	1064
Jun	1066	1170	1075	1064
Sep	1074	1171	1083	1065
Dec	1091	1171	1100	1065
1942				
Mar	1084	1173	1093	1066
Jun	1093	1221	1102	1110
Sep	1114	1251	1123	1137
Dec	1132	1254	1141	1140

Source: New Zealand Official Yearbooks. Retail Prices Index for each quarter, and Nominal Weekly Wage Rates Index at end of each quarter.

TABLE 59: AGGREGATE PRIVATE INCOME AND GOODS AVAILABLE
(See also Chart 59, p. 291)

<i>Year</i>	<i>Aggregate Private Income</i>	<i>£(m.) Goods Available for Use (Current Prices)</i>
1931– 32	99·7	73·2
1932– 33	91·8	73·3
1933– 34	101·3	79·2
1934– 35	106·6	88·9

1935- 36	124·6	100·9
1936- 37	157·5	124·0
1937- 38	173·3	134·7
1938- 39	185·8	134·6
1939- 40	200·2	125·8
1940- 41	216·5	132·4
1941- 42	230·7	136·9
1942- 43	264·4	136·4
1943- 44	292·3	148·2
1944- 45	303·5	139·8
1945- 46	326·8	175·2

Source: New Zealand Official Yearbooks.

Note: The Aggregate Private Income series was discontinued after the war, when national income figures became available. The series was compiled before deduction of taxation or savings. Goods available for use excluded the value of many services. A gap between the two series was normal, but interest attaches to its rapid widening over the war years. The goods available series was calculated from production plus imports less exports, with some adjustments for changes in stocks of primary produce. In the war years, ordnance was excluded from imports for the purpose of these calculations, while supplies under Reverse Land-Lease were added to exports.

TABLE 60: PRICE CHANGES AFTER STABILISATION

Index Numbers

(See also Chart 60, p. 315)

Quarter Wartime Prices Wholesale

<i>Ending Index Base: Dec 1942 = 1000</i>		<i>Prices Index</i>			
		<i>Locally Produced Items</i>		<i>Imported Items</i>	
		<i>Base: 1926-30 = 1000</i>	<i>Converted to Base: 1942 = 1000</i>	<i>Base: 1926-30 = 1000</i>	<i>Converted to Base: Dec 1942 = 1000</i>
1942					
Dec	1000	1220	1000	1663	1000
1943					
Mar	1011	1199	983	1676	1008
Jun	1000	1217	998	1754	1055
Sep	996	1188	974	1760	1058
Dec	1001	1251	1025	1793	1078
1944					
Mar	1005	1227	1006	1800	1082
Jun	1001	1235	1012	1804	1085
Sep	1003	1213	994	1810	1088
Dec	1004	1253	1027	1812	1090
1945					
Mar	1006	1224	1003	1833	1102
Jun	1005	1242	1018	1830	1100
Sep	1001	1249	1024	1840	1106

Source: Monthly Abstracts of Statistics.

TABLE 61: PRICE AND WAGE CHANGES AFTER STABILISATION
Index Numbers

(See also Chart 61, p. 323)

<i>Quarter Wartime Prices Index</i>		<i>Nominal Weekly Wage Rates Index</i>	
<i>Base: Dec 1942 = 1000</i>		<i>Base 1954 = 1000</i>	
		<i>Converted to Base: Dec 1942 = 1000</i>	
1942			
Dec	1000	509	1000
1943			
Mar	1011	509	1000
Jun	1000	513	1008

Sep	996	513	1008
Dec	1001	513	1008
1944			
Mar	1005	513	1008
Jun	1001	518	1018
Sep	1003	520	1022
Dec	1004	520	1022
1945			
Mar	1006	523	1028
Jun	1005	573	1126
Sep	1001	574	1128

Source: Monthly Abstracts of Statistics.

TABLES 62, 63, 64: THE GAP BETWEEN INCOMES AND GOODS AVAILABLE
(See also Chart 62, p. 335; Chart 63, p. 336; Chart 64, p. 339)

£(m.)

—	1938-	1939-	1940-	1941-	1942-	1943-	1944-	1945-	1946-	1947-
	39	40	41	42	43	44	45	46	47	48
Private income	200.2	215.7	235.0	256.6	294.9	331.8	339.5	360.5	397.6	447.1
Direct taxation	23.8	30.5	45.6	51.4	66.4	75.5	81.2	84.9	78.2	77.1
Disposable income ¹	176.4	185.2	189.4	205.2	228.5	256.3	258.3	275.6	319.4	369.9
Goods available for use	134.6	125.8	132.4	136.9	136.4	148.2	139.8	175.2	224.5	299.1
Indirect taxes less subsidies	20.0	20.5	20.7	20.5	24.7	28.7	29.4	30.7	31.2	39.1
Goods available for use, after adjustment for indirect taxes and subsidies	154.6	146.3	153.1	157.4	161.1	176.9	169.2	205.9	255.7	339.9
Surplus ² (disposable income less	21.8	38.9	36.3	47.8	67.4	79.4	89.1	69.7	63.7	30.1

goods available, after adjustment)										
Increase in public debt held in New Zealand	13.8	17.9	26.0	40.6	73.9	62.1	36.5	69.5	10.2	11.
Increase in Government indebtedness to the banking system	17.7	11.7	-3.2	8.9	27.5	6.9	-12.0	2.6	-15.8	3.2
Net lending by the private sector to Government	-3.9	6.2	29.2	31.7	46.4	55.2	48.5	66.9	26.0	7.9

Source: Income, taxation, goods available, and public debt from Department of Statistics, Indebtedness to the banking system from [Reserve Bank](#) bulletin, November 1959.

¹ Private income less direct taxation.

² See also footnote to Table 59.

³ This is the difference between the preceding two rows. Includes deposits in the Post Office Savings Bank, National Savings, and the like, as well as subscriptions to Government loans. This is not an exact figure for lending by the private sector. It was affected by changes in Departmental holdings of Government securities.

TABLE 65: VOLUME OF EXPORTS

Also Estimated Volume of Exportable Goods Diverted to Reverse Lend-Lease

(See also Chart 65, p. 369)

Exports ¹**Exportable Meat and
Dairy Produce
Supplied under Reverse
Lend-Lease ²**

Year	Volume Base 1936-38 = 100	Value £(m.)	Value £(m.)	Value as a Volume Index Percentage Base: Exports of Exports 1936-38 = 100 ³	
1936	102	56.8			
1937	102	66.7			
1938	97	58.4			
1939	98	58.0			
1940	108	73.7			
1941	97	67.5			
1942	114	81.3	1.0	1.2	1.4
1943	96	71.9	7.1	9.9	9.5
1944	99	77.8	10.4	13.4	13.3
1945	95	81.6	8.1	9.9	9.4
1946	112	101.3			
1947	119	129.4			

Source: New Zealand Official Yearbooks. Reverse Lend-Lease information in 1946 Yearbook, p. 324.

**TABLE 66: VALUE AND VOLUME OF IMPORTS
Index Numbers, Base 1936-38 = 100
(See also Chart 66, p. 372)**

Year	Total Imports Value	Volume	Imports (excluding Ordnance and Munitions) Value	Volume
1936-38	100	100	100	100
1939	95	94	94	94
1940	94	79	89	74
1941	95	70	84	63
1942	104	74	75	52
1943	183	128	93	64
1944	166	105	109	68
1945	106	64	98	58

¹ Excludes all supplies under Reverse Lend-Lease.

² Meat and dairy produce supplied were valued at £26.6 million out of a total of £81.0 million of Reverse Lend-Lease goods and services.

³ Approximation, by taking volumes as proportional to values: e.g., the Reverse Lend-Lease supplies in 1942 were, in value, equivalent to 1.2 per cent of that year's exports; so their volume is taken as 1.2 per cent of the export volume index for 1942.

TABLE 67: NET OVERSEAS ASSETS OF THE BANKING SYSTEM
(See also Chart 67, p. 385)

Last Monday in Month Net Overseas Assets £(NZ) million

1939 ¹

Mar	9·3
Jun	9·1
Sep	8·6
Dec	15·8

1940

Mar	23·0
Jun	27·4
Sep	22·2
Dec	23·4

1941

Mar	29·8
Jun	31·1
Sep	25·7
Dec	25·3

1942

Mar	30·9
Jun	37·3
Sep	40·4
Dec	40·6

1943	
Mar	37·1
Jun	40·2
Sep	35·1
Dec	42·8
1944	
Mar	39·3
Jun	41·0
Sep	46·8
Dec	53·3
1945	
Mar	62·4
Jun	77·6
Sep	83·3
Dec	93·8
1946	
Mar	98·4
Jun	97·6
Sep	96·6
Dec	104·1

Value of Exports
£(m)

1933	41	1939	58	1945	82
1934	47	1940	74	1946	101
1935	47	1941	67	1947	129
Average 45					
Average 66					
Average 104					

Source: Reserve Bank bulletins and *New Zealand Official Yearbooks*.

¹ Earlier figures are given in Table 6.

TABLE 68: TURN-ROUND OF OVERSEAS VESSELS
(See also Chart 68, p. 402)

<i>Period</i>	<i>Average Number of Days Spent on the New Zealand Coast</i>
January to June	35·7
1939	
January to June	21·5

1941	
Year ending March	1942 17·9
Year ending March	1943 18·7
Year ending March	1944 18·9
Year ending March	1945 21·0
Year ending March	1946 21·5
Year ending March	1947 37·3
Year ending March	1948 44·6
Year ending March	1949 40·8

Note: Information on the average number of ports visited is given on p. 377.

Source: Parliamentary Paper H-45, Report on Waterfront Industry Commission, 1949, p. 71.

TABLE 69: RAILWAYS OPERATIONS
(See also Chart 69, p. 408)

	<i>Passengers</i>		<i>Freight</i>		<i>Staff</i>		<i>Coal Consumption</i>		
<i>Year Ending March</i>	<i>Number of Rail Passenger Journeys¹ (millions)</i>	<i>Index Number Base: 1938-39 = 1000</i>	<i>Net ton-miles² (millions)</i>	<i>Index Number Base: 1938-39 = 1000</i>	<i>Number</i>	<i>Index Number Base: 1938-39 = 1000</i>	<i>Total Coal Used (Thousands)</i>	<i>Index Number Base: 1938-39 = 1000</i>	<i>Index Number Base: 1938-39 = 1000</i>
1938-39	23·3	1000	574·5	1000	24,342	1000	484	1000	1000
1939-40	24·5	1051	580·8	1011	25,710	1056	492	1011	1056
1940-41	26·3	1129	659·7	1148	24,502	1007	529	1129	1148
1941-	28·6	1230	688·7	1199	23,352	959	538	1230	1199

42								
1942–	36·1	1553	781·4	1360	22,327	914	612	19
43								
1943–	38·6	1660	832·6	1449	23,422	962	634	19
44								
1944–	33·0	1418	814·9	1418	24,002	986	577	19
45								
1945–	32·4	1393	842·5	1466	24,329	999	610	19
46								
1946–	28·9	1241	883·7	1538	26,077	1071	594	19
47								
1947–	25·9	1113	937·4	1632	25,950	1066	568	19
48								
1948–	26·2	1125	970·8	1690	26,324	1081	546	19
49								

¹ Excludes Railways road service passengers. The number of road service passenger journeys increased every year, from 5·7 million in 1938–39 to 23·5 million in 1948–49.

² A ton-mile is 1 ton of freight hauled for 1 mile.

³ Average for year, excluding those serving with the armed forces.

Sources: Annual reports on transport statistics; Parliamentary Papers D-2, Reports of the **Railways Department**; *New Zealand Official Yearbooks*.

TABLE 70: OUTPUT OF COAL
(Thousands of tons)
(See also Chart 70, p. 413)

<i>Year</i>	<i>Underground</i>	<i>Open-cast</i>	<i>All Mines</i>
1936	2,108	32	2,140
1937	2,239	39	2,278
1938	2,180	42	2,222
1939	2,296	47	2,343
1940	2,465	51	2,516

1941	2,585	54	2,640
1942	2,624	56	2,680
1943	2,726	62	2,788
1944	2,610	196	2,806
1945	2,381	453	2,834
1946	2,265	529	2,794
1947	2,107	645	2,752
1948	2,099	677	2,776
1949	2,071	742	2,813

Source: Parliamentary Papers C-2, Mines Statements.

TABLE 71: IMPORTS OF MOTOR

SPIRITS

(See also Chart 71, p. 418)

Year Millions of Gallons

1934	65
1935	65
1936	87
1937	86
1938	102
1939	104
1940	94
1941	66
1942	59
1943	66
1944	68
1945	71
1946	86
1947	102
1948	117

Source: Annual Statistical Reports on Trade and Shipping.

TABLE 72: ELECTRICITY AND GAS GENERATED

(See also Chart 72, p. 426)

<i>Year</i>	<i>Electricity (millions of Kilowatt-hours)</i>	<i>Gas (millions of Cubic Feet ¹)</i>
1927-	510	4,024

28		
1928-	595	4,047
29		
1929-	710	4,144
30		
1930-	760	4,230
31		
1931-	788	4,083
32		
1932-	832	3,962
33		
1933-	858	3,832
34		
1934-	916	3,817
35		
1935-	1,032	3,885
36		
1936-	1,142	3,997
37		
1937-	1,253	4,093
38		
1938-	1,414	4,155
39		
1939-	1,631	4,359
40		
1940-	1,830	4,480
41		
1941-	1,929	4,632
42		
1942-	2,036	4,826
43		
1943-	2,170	5,097
44		
1944-	2,274	5,178
45		
1945-	2,365	5,241
46		
1946-	2,521	5,329
47		
1947-	2,590	5,457

48		
1948-49	2,834	5,463
1949-50	3,036	5,541
1950-51	3,097	5,446
1951-52	3,462	4,830
1952-53	3,579	5,282
1953-54	4,029	5,238
1954-55	4,383	5,174
1955-56	4,748	5,222
1956-57	4,967	5,240
1957-58	5,644	5,311
1958-59	5,677	5,520
1959-60	6,361	5,664
1960-61	6,835	5,696
1961-62	7,399	5,861
1962-63	7,951	5,489

Source: Department of Statistics.

¹ Small quantities of natural gas are included in the later years.

TABLE 73: SALES OF ELECTRIC POWER ¹
(See also Chart 73, p. 433)

Sales in millions of kilowatt-hours and index numbers on Base: Year

ended 31 March 1939 = 1000

<i>Year Ended 31 March</i>	<i>Domestic</i>		<i>Commercial and Industrial</i>		<i>Other, Including Dairy Water Heating</i>	
	<i>Sales</i>	<i>Index Numbers</i>	<i>Sales</i>	<i>Index Numbers</i>	<i>Sales</i>	<i>Index Numbers</i>
1939	539	1000	430	1000	141	1000
1940	636	1180	489	1137	160	1135
1941	725	1345	545	1267	179	1270
1942	798	1481	560	1302	189	1340
1943	852	1581	598	1391	196	1390
1944	900	1670	638	1484	199	1411
1945	941	1746	666	1549	195	1383
1946	1024	1900	672	1563	195	1383

Source: Department of Statistics.

TABLE 74: EMPLOYMENT IN LOCAL AUTHORITIES ¹
(See also Chart 74, p. 439)

<i>Year Ended 31 March</i>	<i>Counties</i>	<i>Boroughs</i>	<i>Electric Power Districts</i>	<i>Urban Transport Districts</i>	<i>Harbour Boards</i>	<i>All Local Authority Employees</i> ²
1938	6,903	14,820	2,053	1,749	3,398	31,860
1939	7,147	16,814	2,255	1,842	3,593	34,693
1940	6,155	15,266	2,333	1,787	3,382	31,543
1941	4,783	13,302	2,228	1,760	3,126	27,457
1942	3,822	11,444	2,166	1,710	2,784	23,839
1943	3,470	9,564	1,944	1,779	2,785	21,409
1944	3,696	9,693	1,838	1,765	2,838	21,764
1945	3,857	10,096	1,920	1,768	2,804	22,499
1946	4,100	10,922	2,183	1,990	3,011	24,411
1947	4,031	10,997	2,447	2,059	2,917	24,599
1948	4,060	11,081	2,477	2,190	3,044	25,183

Source: Department of Statistics.

¹ Excludes power supplied free of charge and line losses.

¹ Covers all direct employees, including part-time, temporary, or casual employees, and those whose wages are recoverable, but excludes those employed by contractors.

² Including other types of local authority not listed separately in this table.

TABLE 75: VOLUME OF PRODUCTION EXCLUDING SERVICES

(See also Chart 75, p. 441)

£(m.)

(1938-39 prices)

<i>Year</i>	<i>Farm</i> ¹	<i>Factory</i> ¹	<i>Building and Miscellaneous</i>	<i>Total</i>
1938-39	79·1	30·5	23·7	133·3
1939-40	82·5	33·6	25·3	141·4
1940-41	90·6	34·9	23·4	148·9
1941-42	88·0	35·8	22·7	146·5
1942-43	85·0	37·1	23·2	145·3
1943-44	84·1	39·4	22·1	145·6
1944-45	90·6	40·4	21·5	152·5
1945-46	84·2	41·6	22·8	148·6
1946-47	87·9	44·7	24·8	157·4

Source: Department of Statistics.

¹ Processing of farm produce is treated as part of farm production in this table.

¹ Processing of farm produce is treated as part of farm production in this table.

TABLE 76: MARRIAGE AND BIRTH

RATES

**Rates per 1000 of Mean
Population**

(See also Chart 76, p. 445)

Year Marriages Live Births

1927	7.50	20.41
1928	7.50	19.95
1929	7.74	19.66
1930	7.70	19.37
1931	6.77	19.11
1932	6.87	18.09
1933	7.19	17.72
1934	7.60	17.60
1935	8.16	17.42
1936	9.17	18.07
1937	9.42	18.86
1938	9.93	19.26
1939	10.92	20.23
1940	11.04	22.62
1941	8.48	24.06
1942	7.79	23.12
1943	7.35	21.25
1944	8.24	23.01
1945	9.85	24.58
1946	11.99	27.08
1947	10.59	27.70
1948	9.67	26.79
1949	9.27	26.13
1950	8.96	25.88
1951	8.69	25.62
1952	8.55	26.01
1953	8.41	25.35
1954	8.38	25.84
1955	8.32	26.03
1956	8.03	25.93
1957	7.89	26.20
1958	8.01	26.53
1959	7.84	26.50
1960	7.96	26.44
1961	8.00	26.97
1962	7.86	26.17

Source: Report on the Vital Statistics of New Zealand.

TABLE 77: MALE LABOUR AT SUCCESSIVE CENSUSES

Numbers engaged and index numbers on Base 1936 = 1000

(See also Chart 77, p. 494)

<i>Industrial Group</i>	<i>Census of</i>			
	<i>1936</i>	<i>1945</i>	<i>1951</i>	<i>1956</i>
Farming—				
Number (000)	147·9	114·7	117·4	116·6
Index Number	1000	775	794	788
Other Primary Industry—				
Number (000)	24·7	20·6	24·1	24·6
Index Number	1000	834	976	996
Manufacturing—				
Number (000)	81·6	93·8	122·2	134·9
Index Number	1000	1150	1498	1653
Building and Construction—				
Number (000)	47·7	43·9	61·2	79·7
Index Number	1000	920	1283	1671
Power, Water, etc.—				
Number (000)	5·5	6·3	7·7	9·4
Index Number	1000	1145	1400	1709
Transport and Communications—				
Number (000)	60·4	62·5	75·1	78·6
Index Number	1000	1035	1243	1301
Distribution and Finance—				
Number (000)	74·7	60·1	84·1	97·4
Index Number	1000	805	1126	1304
Domestic and Personal Services—				
Number (000)	16·7	14·1	17·4	17·7
Index Number	1000	844	1042	1060
Administration and Professional—				
Number (000)	32·3	33·6	46·0	51·6
Index Number	1000	1040	1424	1598
TOTAL: ALL INDUSTRIES—				
Number (000)	491·5	449·5	555·4	610·2
Index Number	1000	915	1130	1242

Sources: Adapted from the original Population Census tabulations in the following ways:

- (Estimated figures for Maoris added to 1936 and 1945 census figures. *a)*
- (Treatment of Government administrative officers adjusted in 1936, *b)* 1945, and 1951 to match 1956.
- (1936 adjusted for extra large numbers of unspecified and unemployed *c)* so as to match the other censuses as closely as possible.

Detailed worksheets and also corresponding figures for female labour are on Department of Statistics file 100/20/43.

TABLE 78: PROGRESS OF DEMOBILISATION (See also Chart 78, p. 503)

Numbers Demobilised

<i>Quarter Ending In This Quarter</i>		<i>To Date</i>
Dec 1940	112 ¹	112
Mar 1941	721	833
Jun 1941	387	1,220
Sep 1941	371	1,591
Dec 1941	974	2,565
Mar 1942	913	3,478
Jun 1942	1,058	4,536
Sep 1942	631	5,167
Dec 1942	10,302	15,469
Mar 1943	3,825	19,294
Jun 1943	3,312	22,606
Sep 1943	5,050	27,656
Dec 1943	6,987	34,643
Mar 1944	8,013	42,656
Jun 1944	4,470	47,126
Sep 1944	6,803	53,929
Dec 1944	6,618	60,547
Mar 1945	8,128	68,675
Jun 1945	9,710	78,385
Sep 1945	20,272	98,657
Dec 1945	27,439	126,096

Mar 1946	25,304	151,400
Jun 1946	12,192	163,592
Sep 1946	9,591	173,183
Dec 1946	4,124	177,307
Mar 1947	5,203	182,510

Source: Adapted from Parliamentary Paper H-18, Report of the **Rehabilitation Board**, 1947, p. 18.

TABLE 79: ANNUAL EXPENDITURE ON REHABILITATION ¹ (See also Chart 79, p. 511)

<i>Year Ending 31 March</i>	<i>Expenditure £ (million)</i>	<i>Year Ending 31 March</i>	<i>Expenditure £ (million)</i>
1944	2·1	1954	16·2
1945	6·2	1955	13·9
1946	15·7	1956	12·6
1947	21·3	1957	11·0
1948	19·1	1958	10·7
1949	19·3	1959	9·4
1950	17·1	1960	7·6
1951	19·7	1961	7·9
1952	18·8	1962	7·3
1953	19·1	1963	6·7

Source: Parliamentary Papers H-18, Reports of **Rehabilitation Board**.

¹ Includes about 40 who were demobilised earlier.

¹ Loan authorisations are included here (see also p. 518).

TABLE 80: INDEX NUMBERS OF RETAIL PRICES
Long-term Linked Series: Base 1955
 =1000 ¹

(See also Chart 80, p. 537)

<i>Year</i>	<i>Index Number</i>	<i>Year</i>	<i>Index Number</i>
1914	332	1939	523
1915	357	1940	547
1916	382	1941	567
1917	415	1942	586

1918 449	1943 599
1919 482	1944 610
1920 538	1945 618
1921 546	1946 623
1922 503	1947 643
1923 507	1948 694
1924 520	1949 706
1925 530	1950 745
1926 533	1951 828
1927 529	1952 892
1928 531	1953 933
1929 530	1954 976
1930 518	1955 1000
1931 479	1956 1035
1932 443	1957 1057
1933 420	1958 1104
1934 427	1959 1146
1935 442	1960 1154
1936 456	1961 1175
1937 488	1962 1206
1938 502	1963 1230

Source: Annual Reports on Prices, Wages and Labour Statistics.

¹ Consumers' Price Index linked to All Groups Retail Series. The Wartime Prices Index is not used in these long-term linked series. (See also [p. 333.](#))

**TABLE 81: SELECTED AGE GROUPS AS A PERCENTAGE OF TOTAL POPULATION
Excluding Maoris but including Armed Forces
(See also Chart 81, p. 541)**

	<i>Age Groups</i>		
<i>Year</i>	<i>0 to 14 Inclusive Per cent</i>	<i>15 to 64 Inclusive Per cent</i>	<i>65 and Over Per cent</i>
1923	30·7	64·4	4·9
1924	30·3	64·8	4·9
1925	29·9	65·1	5·0
1926	29·4	65·4	5·2

1927	29·0	65·8	5·2
1928	28·5	66·1	5·3
1929	28·1	66·6	5·3
1930	27·6	66·9	5·5
1931	27·2	67·2	5·6
1932	26·8	67·4	5·8
1933	26·5	67·6	5·9
1934	26·1	67·8	6·1
1935	25·5	68·1	6·4
1936	25·0	68·4	6·6
1937	24·8	68·3	6·9
1938	24·5	68·4	7·1
1939	24·3	68·5	7·3
1940	24·8	67·6	7·6
1941	25·3	66·8	7·9
1942	25·7	66·2	8·2
1943	25·8	65·7	8·5
1944	25·7	65·6	8·7
1945	25·8	65·4	8·9
1946	25·8	65·2	9·0
1947	26·4	64·4	9·1
1948	27·1	63·7	9·3
1949	27·7	63·0	9·3
1950	28·3	62·3	9·4
1951	28·8	61·7	9·6
1952	29·2	61·2	9·5
1953	29·7	60·8	9·5
1954	30·1	60·4	9·5
1955	30·4	60·1	9·5
1956	30·5	60·0	9·5
1957	30·9	59·8	9·4
1958	31·2	59·5	9·3
1959	31·6	59·2	9·2
1960	31·9	59·0	9·1
1961	31·8	59·2	9·0
1962	31·7	59·4	8·9

Totals do not always add to exactly 100·0, due to rounding.

Source: Department of Statistics Age Estimates.

TABLE 82: SOCIAL SECURITY BENEFITS AND PENSIONS ¹

(See also Chart 82, p. 545)

<i>Year Ended 31 March</i>	<i>Social Security Benefits and Pensions £(m)</i>	<i>Net National Income at Factor Cost £(m)</i>	<i>Social Security Benefits and Pensions as a Percentage of National Income</i>
1940	12.3	211.1	5.8
1941	14.1	230.4	6.1
1942	15.2	252.6	6.0
1943	17.7	291.6	6.1
1944	20.3	326.2	6.2
1945	22.5	329.4	6.8
1946	26.2	346.9	7.6
1947	40.7	368.4	11.0
1948	44.3	413.8	10.7
1949	46.9	422.5	11.1
1950	50.7	480.5	10.6
1951	53.9	612.5	8.8
1952	62.4	625.1	10.0
1953	64.3	658.9	9.8
1954	68.3	735.4	9.3
1955	73.8	801.9	9.2
1956	79.9	843.9	9.5
1957	83.0	887.4	9.4
1958	87.0	936.3	9.3
1959	98.8	962.4	10.3
1960	114.9	1038.6	11.1
1961	120.7	1115.3	10.8
1962	126.5	1154.8	10.4
1963	128.3	1240.4	10.3

TABLE 83: TRADING BANK ADVANCES

(See also Chart 83, p. 547)

Calendar Year Annual Averages of Weekly Figures £(m)

1939	54.7
1940	48.0
1941	49.7

1942	45.4
1943	43.3
1944	46.8
1945	51.8
1946	58.3
1947	76.5
1948	88.2
1949	83.4
1950	94.7
1951	132.9
1952	169.8
1953	136.8
1954	157.0
1955	182.9
1956	170.6
1957	164.9
1958	175.4
1959	170.1
1960	177.7
1961	217.5
1962	200.5
1963	201.9

Source: Monthly Abstract of Statistics.

¹ Earlier figures are given in Table 3.

Source: *New Zealand Official Yearbooks and Parliamentary Paper H-9, Report of the Social Security Department, 1963, p. 24.*

TABLE 84: IMPORTS AND EXPORTS ¹
(Excluding Specie)
(See also Chart 84, p. 552)

<i>Year Exports £(m)</i>	<i>Imports (c.d.v. + 10%) £(m)</i>	<i>Imports c.i.f. ² £(m)</i>
1940 73.7	49.0	
1941 67.5	49.2	
1942 81.3	53.9	

1943	71·9	95·2	
1944	77·8	86·4	
1945	81·6	55·1	
1946	101·3	71·6	
1947	129·4	128·6	
1948	147·8	128·5	
1949	147·3	120·0	
1950	183·8	157·9	
1951	248·1	206·5	
1952	240·6	252·4	276·2
1953	235·9	180·0	192·2
1954	244·5	234·5	245·8
1955	259·3	275·7	287·1
1956	277·5	258·3	268·4
1957	276·6	287·9	297·1
1958	250·2	278·1	285·1
1959	293·7	225·6	231·4
1960	302·6	278·5	282·3
1961	284·0	317·1	324·9
1962	287·1	268·8	270·9
1963	327·2	325·9	324·7

TABLE 85: THE NET COST OF INVISIBLES EXPRESSED AS A PERCENTAGE OF EXPORT EARNINGS

(See also Chart 85, p. 553)

<i>Year</i> ¹	<i>Deficit on Invisibles as a Percentage of Export Earnings</i>
1950-51	12·4
1951-52	18·3
1952-53	15·5
1953-54	12·8
1954-55	17·8
1955-56	19·8
1956-57	19·4
1957-58	16·5
1958-59	19·5
1959-60	16·6
1960-61	24·2
1961-62	25·0

¹ Earlier years are given in Table 5.

² Not available for early years.

Source: Department of Statistics.

¹ Figures not available before 1950-51.

Source: Adapted from the Annual Report on the Balance of Payments.

TABLE 86: DIRECTION OF TRADE
Percentages of Total Values
 (See also Chart 86, p. 557)

	<i>Exports</i>		1960 ^s	<i>Imports</i>		1960 ^s
	<i>Pre-war</i>	<i>Post-war</i>		<i>Pre-war</i>	<i>Post-war</i>	
United Kingdom	79·9	73·5	48·6	48·7	47·5	42·2
United States of America	4·9	6·7	16·0	11·6	14·9	9·3
Australia	3·4	3·1	4·4	13·1	12·1	19·0
Canada	2·1	2·3	1·4	8·5	7·1	3·6
France	2·0	4·3	6·2	0·4	0·6	1·0
Japan	2·3		4·5	2·4		3·8
Other Countries	5·5	10·1	18·9	15·3	17·9	21·2
Total	100·0	100·0	100·0	100·0	100·0	100·0

Years used are:

Pre-war: 1937, 1938 and 1939.

Post-war: 1946, 1947 and 1948.

1960^s: 1961, 1962 and 1963.

Source: Department of Statistics.

(See also Chart 87, p. 560)

Numbers and Index Numbers: Base 1951 =1000

	1951	1961
Numbers engaged in farming (including working proprietors) ¹	126,800	121,600
Index numbers	1000	959
Index numbers of volume of farm output ²	1000	1307
Index numbers of volume per person engaged ³	1000	1363
Numbers engaged in manufacturing (including working proprietors) ⁴	141,394	184,463
Index numbers	1000	1305
Index numbers of volume of manufacturing output ⁴	1000	1687
Index numbers of volume per person engaged	1000	1293

Source: Adapted from Department of Statistics figures.

¹ Population census figures, but 1951 figures adjusted to exclude 1900 government administrative officers.

² Derived from volume of gross farming income for 1950-51 season and 1960-61 season. (An average of three seasons in each case gives approximately the same change.)

³ Rough approximation only. Numbers engaged and production volumes come from different sources.

⁴ From industrial production statistics. The 1951 figure is an average of 1950-51 and 1951-52, and the 1961 figure is an average of 1960-61 and 1961-62.

⁴ From industrial production statistics. The 1951 figure is an average of 1950-51 and 1951-52, and the 1961 figure is an average of 1960-61 and 1961-62.

TABLE 88: LABOUR FORCE CHANGES

(See also Chart 88, p. 564)

Numbers and Index Numbers: Base April 1947 =1000

<i>Primary Industry</i>	<i>Manufacturing</i>		<i>Building and Construction</i>		<i>Total in Industry</i> ¹			
<i>April Number (000)</i>	<i>Index Number (000) No.</i>		<i>Index Number (000) No.</i>		<i>Index Number (000) No.</i>		<i>Index No.</i>	
1947	149·8	1000	171·6	1000	49·3	1000	690·6	1000
1948	149·5	998	175·8	1024	51·0	1034	702·8	1018
1949	148·6	992	178·0	1037	51·9	1053	711·7	1031
1950	148·3	990	182·2	1062	54·1	1097	723·0	1047
1951	148·1	989	185·6	1082	53·8	1091	729·6	1056
1952	146·7	979	186·3	1086	58·2	1181	740·8	1073
1953	145·8	973	187·2	1091	63·8	1294	754·6	1093
1954	145·0	968	194·3	1132	69·2	1404	775·2	1123
1955	144·6	965	198·9	1159	73·5	1491	789·8	1144
1956	144·3	963	200·2	1167	75·8	1538	804·2	1164
1957	143·7	959	202·9	1182	75·8	1538	819·6	1187
1958	142·7	953	210·1	1224	78·1	1584	838·0	1213
1959	141·3	943	217·5	1267	79·8	1619	851·3	1233
1960	139·8	933	222·8	1298	81·0	1643	864·4	1252
1961	137·6	919	232·0	1352	81·8	1659	885·4	1282
1962	136·2	909	237·8	1386	80·8	1639	900·0	1303
1963	135·0	901	244·1	1422	81·3	1649	918·7	1330
1964	133·6	892	256·0	1492	84·8	1720	945·1	1369

¹ Including groups not shown in this table.

Source: Labour Department.

TABLE 89: VALUE ADDED IN MANUFACTURING COMPARED WITH IMPORTS

(See also Chart 89, p. 572)

<i>year</i>	<i>Value Added in Manufacturing £(m)</i>	<i>Imports (c.d.v.)¹ £(m)</i>	<i>Value Added as a Percentage of Imports Per cent</i>
1923–24	26·2	39·4	66·5
1924–25	28·0	44·1	63·5
1925–26	27·2	47·7	57·0

26		
1926- 27·6	45·3	60·9
27		
1927- 27·6	40·7	67·8
28		
1928- 28·3	40·8	69·4
29		
1929- 29·1	44·3	65·7
30		
1930- 26·4	40·3	65·5
31		
1931- 21·9	24·1	90·9
32		
1932- 21·2	22·4	94·6
33		
1933- 22·4	23·3	96·1
34		
1934- 24·5	28·5	86·0
35		
1935- 26·9	33·0	81·5
36		
1936- 31·9	40·2	79·4
37		
1937- 34·8	51·1	68·1
38		
1938- 35·4	50·4	70·2
39		
1939- 40·1	44·9	89·3
40		
1940- 44·4	44·5	99·8
41		
1941- 49·1	44·7	109·8
42		
1942- 53·9	49·0	110·0
43		
1943- 57·8	86·6	66·7
44		
1944- 62·1	78·5	79·1
45		
1945- 66·5	50·1	132·7

46		
1946– 74·3	65·1	114·1
47		
1947– 84·3	116·9	72·1
48		
1948– 91·3	116·8	78·2
49		
1949– 102·3	109·1	93·8
50		
1950– 113·3	143·6	78·9
51		
1951– 140·3	187·8	74·7
52		
1952– 145·0	229·4	63·2
53		
1953– 162·4	163·6	99·3
54		
1954– 185·3	213·2	86·9
55		
1955– 201·1	250·7	80·2
56		
1956– 207·1	234·8	88·2
57		
1957– 227·0	261·7	86·7
58		
1958– 240·8	252·8	95·3
59		
1959– 266·5	205·1	129·9
60		
1960– 287·1	253·2	113·4
61		
1961– 318·0	288·3	110·3
62		
1962– 337·7	244·4	138·2
63		
1963– 360·0 ²	307·7	117·0
64		

¹ Imports shown opposite the year 1923–24 are for calendar year

1923, and so on. C.d.v. imports used throughout, as c.i.f. not available for the early years.

² Estimated.

Source: Department of Statistics.

*** Estimates only. There are no reliable figures for labour force in this period. The estimates used as denominators include men in the armed forces.**

WAR ECONOMY

APPENDIX II – ITEMS IN THE WARTIME PRICES INDEX

Appendix II

ITEMS IN THE WARTIME PRICES INDEX

THE units of measurement and weights of these items are given in Parliamentary Paper H-43, 1944, *The New Zealand Wartime Prices Index*.

FOOD GROUP

Groceries Sub-group

Bread, cash over counter	Sugar, fine quality (1 and 1A)
Potatoes	Jam, NZ plum or plum and apple
Onions	Honey
Flour, ordinary	Golden syrup
Oatmeal	Raisins
Rolled oats	Peaches, canned, first grade
Rice, medium grade	Prunes (dried), 30-40 grade
Tea	Salt, common
Coffee	Baking-powder

Dairy-produce Sub-group

Milk, fresh (delivered, bottled or not bottled)	Butter, factory-made, first grade
Bacon—	Cheese, ordinary
Shoulder	Eggs, fresh (Standard Grade)
	Middle cut

Meat and Fish Sub-group

Beef—	Mutton—
Sirloin	Leg
Brisket	Shoulder
Prime ribs	Lion
Rump steak	Neck
Topside	Chops
Stewing steak	Pork—
Corned—	Leg
Round	Loin

Rolled	Belly
Brisket	Chops
Sausages—	Tripe
Pork	Fish, fresh groper (hapuku)
Beef	

Fresh Fruit and Vegetables Sub-group

Vegetables—	Fruit—
Carrots	Lemons (NZ only)
Parsnips	Apples, eating and cooking
Swedes	
Cabbages	

RENT GROUP

**Rentals for four-, five-, and six-roomed houses for the following classes:
State; State reverted; Private.**

FUEL AND LIGHT GROUP

Coal, household	Gas
Coke, household	Electric current

CLOTHING, FOOTWEAR, AND HOUSEHOLD DRAPERY GROUP

Men's Wear

Suit, NZ Wool, r.m. ¹	Pyjamas, flannelette
Working overalls, denim	Pullover, worsted
Overcoat, NZ tweed, r.m.	Sports coat, NZ wool, r.m.
Raincoat, cotton gaberdine	Sports trousers, worsted, r.m.
Hat, fur felt	Boots, men's—
Shirt, cotton	Heavy
Shirt, working, drill	Light
Singlet—	Shoes, men's—
Wool	Heavy
Locknit	Light
Underpants—	Repairs: Half-soled and heeled (sewn and riveted)
Wool	Interlock
Socks—	Wool

Worsted

Women's Wear

Frock material—	Panties, locknit
Art. silk	Underslip, locknit
Wool	Nightdress, locknit
Cotton	Pyjamas, wincyette
Skirt—	Stockings—
NZ tweed, r.m.	Silk
NZ worsted, r.m.	Lisle
Hat, wool felt	Gloves, nappa
Frock—	Smock, dirndl
Wool, r.m.	Pullover, wool
Art. silk, r.m.	Overcoat, N. Z. tweed, r.m.
Cotton, r.m.	Raincoat, cotton gaberdine
Corselettes	Shoes—
Vests—	Heavy
Wool	Light
Locknit	Repairs: Half-soled and heeled (sewn and riveted)
Bloomers—	
Wool	
Locknit	

Boys' Wear (10 ½ years)

Suit, NZ wool, r.m.	Shirt—
Shorts, NZ tweed, r.m.	Flannel
Overcoat, NZ tweed, r.m.	Cotton
Raincoat, cotton gaberdine	School hose
School cap	Pyjamas, flannelette
Singlet—	Jersy, wool
Wool	Boots, heavy
Interlock	Shoes—
Underpants—	Light
Wool	Brown sandals
Interlock	Repairs: Half-soled and heeled (sewn and riveted)

Girls' Wear (7 years)

Gym frock, r.m.	Sockettes, lisle
------------------------	-------------------------

Frock—	Nightdress, locknit
Wool, r.m.	Pyjamas, wincyette
Cotton, r.m.	Cardigan, wool
School hat, felt	Overcoat, NZ tweed, r.m.
Vest—	Raincoat, cotton gaberdine
Wool	Shoes—
Interlock	Heavy
Bloomers—	Light
Wool	Brown sandals
Interlock	Repairs: Half-soled and heeled (sewn and riveted)
Stockings, cashmere	

Child's Wear (under 5 years)

Clydella	Jersey, wool
Shirt, cotton	Socks, wool
Pants, NZ wool, r.m.	Shoes (patent and calf)
Overcoat, NZ tweed, r.m.	Felt slippers
Singlet, wool	Repairs: Half-soled and heeled (sewn and riveted)

Pyjamas, wincyette

Household Drapery

Blankets—	Pillowslip
Double	Towel
Single	Tea-towel
Sheets—	Tablecloth
Double, 80 in.	
Single, 54 in.	

MISCELLANEOUS GROUP

Fares

Railway fares for suburban and other short trips.

Tramway fares in [Auckland](#), [Wellington](#), [Christchurch](#) and [Dunedin](#).

Crockery

Plate, white earthenware—	Mixing-bowl—
Large	Large

Small **Small**

Cup and saucer, white earthen-ware—

Tea size

Breakfast size

Furniture

Bedstead, 4 ft 6 in. **Dining table, extension 3 ft 6 in.**

Dressing chest, 3 ft 6 in. × 3 ft

Wardrobe, 3 ft 6 in. **Dining chair**

Mattress— **Sideboard**

Wire, 4 ft 6 in. **Kitchen—**

Wool, 4 ft 6 in. **Table**

Pillow **Stool, unpainted**

Occasional table

Household Cleaning

Soap, laundry (medium grade, **Cleaser (Old Dutch)**

40 bars to cwt) **Boot-polish (Nugget)**

Starch **Clothes-pegs**

Blue (half-dozen knobs to packet) **Sandsoap**

Ironmongery and Hardware

Enamelware— **Garden Tools—**

Stew-pan, 14 cm **Spade**

Kettle **Axe, 4 lb**

Teapot, 2 pint **Rake, 12-tooth**

Preserving pan, 16 pint **Hoe, 7 in.**

Colander, 9 in. **Brushware—**

Pudding basin, 7 in. **Corn brooms**

Pie-dish, 8 in. **Mop, white cotton, 12 oz**

Jug, 3 pint **Broom, hair and fibre, 12 in.**

Mug, half-pint **Scrub brush, small**

Basin (large and small) **Bannister brush, flat back**

Tinware— **Sundries—**

Tin dipper, 2 quart **Washboard, wood, square top**

Cake-tin, round, 7 in. **Bucket, galvanised, 12 in.**

Sandwich-tin, round, 8 in. **Fry-pan, 10 in.**

Cutlery and Silver— **Bake-pan, 12 in.**

Knives— **Fire-shovel, 6 in.**

Dessert, not stainless **Mincer**

Table, not stainless **Electric light globe—**
Teaspoons, not stainless **60 W**
Dessert spoons, not stainless **100 W**
Desert forks, not stainless
Table spoons, not stainless
Table forks, not stainless

Papers, Periodicals, and School Stationery

Papers (NZ) **School stationery—**
Periodicals (NZ and overseas) **Exercise book—**
 8 ½ in. ×X 6 ½ in. (28 leaf)
 10 in. ×X 8 in. (32 leaf)
 Pad, 10 in. ×X 8 in. (30 leaf)
 Drawing-book, 12 ¼ in. × 9 ¾ in.
 (8–8 leaf)

Toilet and Personal Services

Toothpaste Razor-blades (packet of five)
Soap— Haircuts
Toilet
Shaving
Postages and
Telegrams
Letter Telegram

Tobacco

Tobacco (cut)

¹ Ready-made.

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BIBLIOGRAPHY

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Studies of New Zealand at War

Cody, J. F., *28 (Maori) Battalion*, New Zealand Official War History. [Wellington](#), 1956.

Gillespie, Oliver A., *The Pacific*, New Zealand Official War History. [Wellington](#), 1952.

New Zealand Department of Internal Affairs, War History Branch, *Documents Relating to New Zealand's Participation in the Second World War* (3 vols). Wellington, 1949, 1951, 1963.

Proceedings of the General Working Committee of the Economic Stabilisation Conference, 1940. Wellington.

Report of the Economic Stabilisation Conference, 1940.

Ross, A. A., *Wartime Agriculture in New Zealand*. Stanford University, California, USA, 1954.

Ross, Sqn Ldr J. M. S., *Royal New Zealand Air Force*, New Zealand Official War History. Wellington, 1955.

Waters, S. D., *Ordeal by Sea, The New Zealand Shipping Company in the Second World War*. London, 1949.

Williams, J. W., *The New Zealand Economy in War and Reconstruction*. New York, 1948.

Wise, H. L., *Wartime Price Control in New Zealand*. Wellington, 1943.

Wood, F. L. W., *The New Zealand People at War: Political and External Affairs*. Wellington, 1958.

Other Histories and Surveys of New Zealand

Baker, J. V. T., *Income Distribution in a Trading Nation*. Wellington, 1959. ¹

Baker, J. V. T., *Patterns and Relationships in the New Zealand Economy*. Wellington, 1959. ¹

Baker, J. V. T., *New Zealand Tomorrow*. Wellington, 1961. ¹

Belshaw, Horace, ed., *New Zealand*. United Nations Publication.

Berkeley and Los Angeles, 1947.

Condliffe, J. B., *The Welfare State in New Zealand.* London, 1959.

***Farming in New Zealand.* Department of Agriculture Bulletin No. 279. Wellington, 1946.**

Hamilton, W. M., *The Dairy Industry in New Zealand.* Wellington, 1944.

Hare, A. E. C., *Report on Industrial Relations in New Zealand.* Wellington, 1946.

Harris, E. A., *A Survey of the New Zealand Footwear Manufacturing Industry with special reference to conditions in the industry prior to and during the licensing period 1939–1949.* Thesis; copy held by Canterbury University Library.

Hunter, Mr Justice, *The Work and Practice of the Price Tribunal.* Wellington, 1946.

Interim Report on Post-War Reconstruction and National Development. Report by the Organisation for National Development. 1944.

Lipson, Leslie, *The Politics of Equality.* Chicago, 1948.

Nash, Walter, *New Zealand, a Working Democracy.* London, 1944.

***New Zealand Overseas Trade. Report on Shipping, Ports, Transport, and Other Services.* Producers' Board Shipping Utilisation Committee, New Zealand; and New Zealand Trade Streamlining Committee, London. London, 1964.**

Paul, J. T., *Humanism in Politics.* Wellington, 1946.

Polaschek, R. J., *Government Administration in New Zealand.* London, 1958.

Primary Production in New Zealand, 1957. Department of Agriculture. Wellington, 1957.

Report of the Royal Commission on Monetary, Banking and Credit Systems, 1956. Wellington, 1957.

Scott, K. J., ed., Welfare in New Zealand. Wellington, 1955.

Sinclair, K., A History of New Zealand. London, 1959.

Social Security Department, The Growth and Development of Social Security in New Zealand (1898–1949). Wellington, 1950.

Soljak, P. J., New Zealand, Pacific Pioneer. London, 1946.

Speer, N. M., The Electrical Supply Industry in New Zealand. Wellington, 1962.

Thorn, J., Peter Fraser. London, 1952.

Weststrate, C., Portrait of a Modern Mixed Economy. Wellington, 1959.

Woods, N. S., Industrial Conciliation and Arbitration in New Zealand. Wellington, 1963.

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New Zealand Journals, Annual Reports, etc.

Annual Reports of the National Bank of New Zealand.

Annual Statistical Reports of the Department of Statistics. Wellington.

Appendices to the Journals of the House of Representatives. Wellington.

Bulletins of the Reserve Bank of New Zealand.

Canterbury Chamber of Commerce Bulletins.

Files of the *Dominion* and the *Evening Post*.

New Zealand Apple and Pear Board Annual Reports.

New Zealand Dairy Board Annual Reports.

***New Zealand Gazettes*. Wellington.**

New Zealand Meat Producers' Board Annual Reports.

***New Zealand Official Yearbooks*. Wellington.**

***New Zealand Parliamentary Debates*. Wellington.**

New Zealand Wool Board Annual Reports.

War History Branch Narratives. Wellington.

British War Histories

Central Statistical Office, *History of the Second World War: Statistical Digest of the War*. (U.K. Civil Series). London, 1951.

Churchill, Winston S., *The Second World War* (6 vols). London, 1948–54.

Hall, H. Duncan, *History of the Second World War: North American Supply*. (U.K. Civil Series). London, 1955.

Hall, H. Duncan, and Wrigley, C. C., *History of the Second World War: Studies of Overseas Supply*. (U.K. Civil Series). London, 1956.

Hammond, R. J., *History of the Second World War: Food—The Growth of Policy*. Volume I (U.K. Civil Series). London, 1951.

Hammond, R. J., *History of the Second World War: Food—Studies in Administration and Control*. Vol. III (U.K. Civil Series). London, 1962.

Hancock, W. K., and Gowing, M. M., *History of the Second World War: British War Economy*. (U.K. Civil Series). London, 1949.

Hurstfield, J., *History of the Second World War: The Control of Raw Materials*. (U.K. Civil Series). London, 1953.

Murray, Keith A. H., *History of the Second World War: Agriculture*. (U.K. Civil Series). London, 1955.

Pollock, George, *The Jervis Bay*. London, 1958.

Roskill, Capt. S. W., *The War at Sea*. Vol. I. (United Kingdom Military Series). London, 1954.

Sayers, R. S., *History of the Second World War: Financial Policy 1939–45*. (U.K. Civil Series). London, 1956.

Snyder, Louis L., *The War, 1939–1945*. London, 1962.

United States War Histories

Flower, D., and Reeves, J., eds., *The War, 1939–1945*. London, 1960.

Johnston, R. W., *Follow Me*. 2nd Marine Division in World War II. New York, 1948.

Morison, Samuel Eliot, *History of United States Naval Operations in World War II*. Vol. I. Boston, 1950.

‘New Zealand's Sea Frontier Organisation.’ Unpublished manuscript by the Naval Branch of the United States War History Branch. Washington.

Sherwood, Robert E., *The White House Papers of Harry L. Hopkins*, (2 vols). **London**, 1948–49.

Smith, R. Elberton, *The Army and Economic Mobilisation. The United States Army in World War II*. **Washington**, 1959.

‘Twentieth Report to Congress on Lend Lease Operations.’
Washington, 1947.

Other War Histories

Elliott, W. Y., and Hall, H. D., eds., *The British Commonwealth at War*. **New York**, 1943.

Sinha, N. C., and Khera, P. N., *Official History of the Indian Forces in the Second World War, 1939–45. Indian War Economy: (Supply, Industry, and Finance)*. **India and Pakistan**, 1962.

Other Books

Hull, Cordell, *The Memoirs of Cordell Hull*. **London**, 1948.

Koenig, L. W., ed., *The Truman Administration*. **New York**, 1956.

Yates, P. Lamartine, *Food, Land and Manpower in Western Europe*.
London, 1960.

Other Publications

Annual Abstracts of Statistics and other British statistical publications.

Blau, Gerda, ‘Wool in the World Economy.’ Paper read before the Royal Statistical Society and published in the *Journal of the Royal Statistical Society*, **London**, 1946.

Canada Yearbooks and other Canadian statistical publications.

Commonwealth of Australia Official Yearbooks and other statistical publications.

***The Round Table*, London, quarterly.**

WAR ECONOMY

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New Zealand Department of Internal Affairs, **War History Branch**, *Documents Relating to New Zealand's Participation in the Second World War* (3 vols). **Wellington**, 1949, 1951, 1963.

Proceedings of the General Working Committee of the Economic Stabilisation Conference, 1940. **Wellington**.

Report of the Economic Stabilisation Conference, 1940.

Ross, A. A., *Wartime Agriculture in New Zealand*. **Stanford University, California, USA**, 1954.

Ross, Sqn Ldr J. M. S., *Royal New Zealand Air Force*, New Zealand Official War History. **Wellington**, 1955.

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WAR ECONOMY

OTHER HISTORIES AND SURVEYS OF NEW ZEALAND

Other Histories and Surveys of New Zealand

Baker, J. V. T., *Income Distribution in a Trading Nation.*

Wellington, 1959. ¹

Baker, J. V. T., *Patterns and Relationships in the New Zealand*

***Economy.* Wellington, 1959. ¹**

Baker, J. V. T., *New Zealand Tomorrow.* Wellington, 1961. ¹

Belshaw, Horace, ed., *New Zealand.* United Nations Publication.

Berkeley and Los Angeles, 1947.

Condliffe, J. B., *The Welfare State in New Zealand.* London, 1959.

***Farming in New Zealand.* Department of Agriculture Bulletin No.**

279. Wellington, 1946.

Hamilton, W. M., *The Dairy Industry in New Zealand.* Wellington,

1944.

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Wellington, 1946.

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Social Security Department, *The Growth and Development of Social Security in New Zealand (1898–1949)*. Wellington, 1950.

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WAR ECONOMY

NEW ZEALAND JOURNALS, ANNUAL REPORTS, ETC

New Zealand Journals, Annual Reports, etc.

Annual Reports of the National Bank of New Zealand.

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Wellington.**

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Canterbury Chamber of Commerce Bulletins.

Files of the *Dominion* and the *Evening Post*.

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New Zealand Official Yearbooks. Wellington.

New Zealand Parliamentary Debates. Wellington.

New Zealand Wool Board Annual Reports.

War History Branch Narratives. Wellington.

WAR ECONOMY

BRITISH WAR HISTORIES

British War Histories

- Central Statistical Office, *History of the Second World War: Statistical Digest of the War*. (U.K. Civil Series). **London**, 1951.
- Churchill, Winston S., *The Second World War* (6 vols). **London**, 1948–54.
- Hall, H. Duncan, *History of the Second World War: North American Supply*. (U.K. Civil Series). **London**, 1955.
- Hall, H. Duncan, and Wrigley, C. C., *History of the Second World War: Studies of Overseas Supply*. (U.K. Civil Series). **London**, 1956.
- Hammond, R. J., *History of the Second World War: Food—The Growth of Policy*. Volume I (U.K. Civil Series). **London**, 1951.
- Hammond, R. J., *History of the Second World War: Food—Studies in Administration and Control*. Vol. III (U.K. Civil Series). **London**, 1962.
- Hancock, W. K., and Gowing, M. M., *History of the Second World War: British War Economy*. (U.K. Civil Series). **London**, 1949.
- Hurstfield, J., *History of the Second World War: The Control of Raw Materials*. (U.K. Civil Series). **London**, 1953.
- Murray, Keith A. H., *History of the Second World War: Agriculture*. (U.K. Civil Series). **London**, 1955.
- Pollock, George, *The Jervis Bay*. **London**, 1958.
- Roskill, Capt. S. W., *The War at Sea*. Vol. I. (United Kingdom

Military Series). London, 1954.

Sayers, R. S., *History of the Second World War: Financial Policy 1939–45*. (U.K. Civil Series). London, 1956.

Snyder, Louis L., *The War, 1939–1945*. London, 1962.

WAR ECONOMY

UNITED STATES WAR HISTORIES

United States War Histories

Flower, D., and Reeves, J., eds., *The War, 1939–1945*. **London**, 1960.

Johnston, R. W., *Follow Me. 2nd Marine Division in World War II*. **New York**, 1948.

Morison, Samuel Eliot, *History of United States Naval Operations in World War II*. Vol. I. **Boston**, 1950.

‘New Zealand's Sea Frontier Organisation.’ Unpublished manuscript by the Naval Branch of the United States War History Branch. **Washington**.

Sherwood, Robert E., *The White House Papers of Harry L. Hopkins*, (2 vols). **London**, 1948–49.

Smith, R. Elberton, *The Army and Economic Mobilisation. The United States Army in World War II*. **Washington**, 1959.

‘Twentieth Report to Congress on Lend Lease Operations.’ **Washington**, 1947.

WAR ECONOMY

OTHER WAR HISTORIES

Other War Histories

Elliott, W. Y., and Hall, H. D., eds., *The British Commonwealth at War*. New York, 1943.

Sinha, N. C., and Khera, P. N., *Official History of the Indian Forces in the Second World War, 1939–45. Indian War Economy: (Supply, Industry, and Finance)*. India and Pakistan, 1962.

WAR ECONOMY

OTHER BOOKS

Other Books

Hull, Cordell, *The Memoirs of Cordell Hull*. London, 1948.

Koenig, L. W., ed., *The Truman Administration*. New York, 1956.

**Yates, P. Lamartine, *Food, Land and Manpower in Western Europe*.
London, 1960.**

WAR ECONOMY

OTHER PUBLICATIONS

Other Publications

Annual Abstracts of Statistics and other British statistical publications.

Blau, Gerda, 'Wool in the World Economy.' Paper read before the Royal Statistical Society and published in the *Journal of the Royal Statistical Society*, London, 1946.

Canada Yearbooks and other Canadian statistical publications.

Commonwealth of Australia Official Yearbooks and other statistical publications.

The *Round Table*, London, quarterly.

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