

# **DIMENSIONS OF THE PUBLIC SECTOR, 1960-1981**

Mervyn J. Pope

S  
330.  
993  
PLA

and Planning Council

72176

# **DIMENSIONS OF THE PUBLIC SECTOR, 1960-1981**

**Mervyn J. Pope**

**Planning Paper No. 16**

**September 1982**

**ISSN 0111-0470  
ISBN 0-908601-25-5**

**New Zealand Planning Council P.O. Box 5066 Wellington**



## FOREWORD

One of the Planning Council's main objectives has been to promote understanding and informed debate about the role of Government in our economy and society. In this paper, Mervyn Pope makes a major contribution to our efforts. He has assembled a substantial array of information about the nature and extent of the Government's activities. As his text makes clear, there can be debate about some of the conclusions derived from the statistical information which he has assembled. However, he has brought together in usable form a firmer foundation than we have previously had of data on what Government does, and provided a very useful commentary on the data. The Council trusts that his work will be widely read and discussed.

Frank Holmes  
Chairman

AUTHOR

Mr M.J. Pope is Senior Lecturer in the  
Department of Economics at Victoria  
University, Wellington.

... ..  
... ..  
... ..  
... ..  
... ..  
... ..  
... ..  
... ..

The views expressed in this paper are  
those of the author, and do not purport  
to represent views held by the Planning  
Council



## ACKNOWLEDGEMENTS

Many people have assisted me in writing this paper. To all of them I offer my sincere thanks.

Particular thanks are due to: Diane Salter for allowing me to use her work, which provides the substantive content of sections 3 and 4; to Peter Mersi for his able research assistance; and to Julia Crouch and other officers of the Department of Statistics for advice and help in collating and checking the bulk of the statistical material used. Without the Department of Statistics' assistance, this study would not have been possible.

My special thanks to Professor Geoffrey Schmitt for his careful reading of and detailed comment on the typescript. His assistance helped remove errors and omissions; to improve some matters of argument and presentation; and to make the work more readable. The errors and omissions that remain are my own.

Many thanks also to the New Zealand Planning Council for its encouragement to undertake the study; and to Kerrin Vautier, Sir Frank Holmes, Professor Henry Lang and Professor Gary Hawke for their comments and advice. The work has benefited from that discussion. The views expressed in the paper are however those of the author and do not purport to represent either those of the Planning Council, or the people just acknowledged.

## CONTENTS

### INTRODUCTION

- SECTION 1: GOVERNMENT AS A TAX COLLECTOR
- 2: GOVERNMENT AS A SPENDER
- 3: GOVERNMENT AS A PRODUCER
- 4: GOVERNMENT AS A PROVIDER OF HOUSEHOLD INCOMES
- 5: COMPOSITION OF GOVERNMENT NON-MARKET SECTOR  
EXPENDITURE
- 6: WHAT GOVERNMENT PROVIDES
- 7: ORGANISATIONAL FORM
- 8: FUNDING - CURRENT ACTIVITY
- 9: CAPITAL FORMATION
- 10: CAPITAL FUNDING
- 11: PRIVATISATION
- 12: CONCLUSION

### APPENDICES

- 1: NEW ZEALAND STANDARD INSTITUTIONAL SECTOR CLASSIFICATION
- 2: NEW ZEALAND SYSTEM OF NATIONAL ACCOUNTS
- 3: TAX EXPENDITURES

## TABLES

### SECTION 1: GOVERNMENT AS A TAX COLLECTOR

|          |  |
|----------|--|
| Table 1a | Central government taxation relative to Gross Domestic Product.                                    |
| 1b       | Sources of finance of net Government expenditure \$m.  |
| 1c       | Sources of finance of net Government expenditure as a proportion of net Government expenditure.    |
| 1d       | Sources of finance of net Government expenditure as a proportion of total taxation revenue.        |
| 1e       | Sources of finance of net Government expenditure as a proportion of total household income.        |
| 1f       | Parameters of the Personal Income Tax System.  |
| Graph 1: | Effect of specified Tax Schedules on average tax rates at given levels of average weekly earnings. |

### SECTION 2: GOVERNMENT AS A SPENDER

|           |   |
|-----------|---|
| Table 2a: | Government Expenditure Relative to Gross National Expenditure (Nominal) |
| 2b:       | Some Quantitative Aspects of Central Government Activity                |

### SECTION 3: GOVERNMENT AS A PRODUCER

|          |  |
|----------|--|
| Table 3a | Contribution to Gross Domestic Product by Sector (\$m)         |
| 3b:      | Contribution to gross Domestic Product by Sector (percentages) |

### SECTION 4: GOVERNMENT AS A PROVIDER OF HOUSHOLD INCOMES

|          |  |
|----------|--|
| Table 4a | Contribution to Household Incomes before Tax (\$m)                           |
| 4b:      | Contribution to Household Incomes before Tax (percentage)                    |
| 4c:      | Public Non-Market Sector Contributions to Household Incomes before tax (\$m) |
| 4d:      | Income - Shares Non-market Sector  |



**SECTION 5:**                    **COMPOSITION OF GOVERNMENT NON-MARKET SECTOR EXPENDITURE**

Table 5:                    Central Government Non-Market Production Group Expenditure (\$m)

**SECTION 6:**                    **WHAT GOVERNMENT PROVIDES**

Table 6a:                    Provision of Goods and Services by Central Government (\$m)

6b                    Provision of Goods and Services by Central Government percentages of total Central Government Expenditure

6c:                    Social Welfare Programme

**SECTION 7:**                    **ORGANISATIONAL FORM**

Table 7a:                    Central Government Production by Type of Organisation and method of funding

7b:                    Summary of Public Provision of Goods and Services, by organisational form

**SECTION 8:**                    **FUNDING - CURRENT ACTIVITY**

Table 8a:                    Funding Current Activity

8b:                    Subsidy Payments

8c:                    Summary of Financing of Public Provision by Organisational form and type of good or service (Average 1971/72-1979/80)

**SECTION 9:**                    **CAPITAL FORMATION**

9a:                    Central Government    Gross    Fixed    Capital    Formation  
1960/61-1980/81

9b                    Central Government    Gross    Fixed    Capital    Formation  
1971/72-1980/81

9c (i):                    Composition of Central Government Gross Fixed Capital Formation by Type of Capital Goods (\$m)

9c(ii):                    Composition of Central Government Gross Fixed Capital Formation by Type of Capital Goods (percentage)

9d:                    Gross Fixed Capital Formation by Kind of Economic Activity - Central Government Sector

9e:                    Gross Fixed Capital Formation - Selected Agencies

9f:                    Government Current and Capital Provision by type of good and organisation form

**SECTION 10:**

**CAPITAL FUNDING**

Table 10a: Capital Finance Assistance (\$m)

10b: Capital Finance Assistance is a percentage of capital formation

10c: Funding of Central Government Capital Formation

10d: Summary of Funding of What is Provided

## INTRODUCTION

This paper presents and discusses some new data series designed to give a broad overview of the nature and extent of public sector involvement in the New Zealand economy. Writings on the matter in the late 1970s reflected the issues of public debate at that time, and thus were concerned with direct resource crowding-out, that is a displacement of the private sector activity by public<sup>1</sup>. The upsurge in government expenditure relative to national expenditure was taken as evidence for such crowding-out. However, as new data came to hand and investigations removed some of the conceptual ambiguities and statistical problems it became clear that the evidence did not support a claim for direct resource crowding-out. The public sector was shown to be no larger, relative to the private sector, in the mid 1970s, than it had been in the 1950s and 1960s.<sup>2</sup>

The new evidence did not however cover all aspects of public sector activity. It still left open the question of whether there might have been some change in the nature of the public sector's activity in the 1970s which altered the impact of its relatively constant resource use. Some changes were readily identified: the steady change in the nature of government's tax-take, increasingly toward direct taxation of personal income; the growth in the

---

<sup>1</sup> There are two ways in which such crowding-out might occur. If public sector production were growing faster than the capacity of the economy, it could draw on real resources - labour, land, raw materials and foreign exchange - at the expense of private sector growth. Such direct real resource crowding-out is inevitable for an economy at full employment and subject to a binding foreign exchange constraint. But it is not inevitable in other circumstances. At less than full-employment - in recessionary times such as New Zealand has experienced since 1974/5 - public sector growth may merely be filling a gap left by the private sector. Less public sector growth may result only in an increase in unemployed resources, with no change in the size of the private sector.

An alternative, more subtle, form of crowding-out, financial crowding-out, could occur both in recessionary times and at full employment. This occurs if public expenditures are financed in certain ways which increase interest rates, or inflation, or displace private investment by taking up savings which would otherwise be used by the private sector investors. It can also occur though the supply side effects of tax disincentives to work or increase productivity.

<sup>2</sup> Mervyn J. Pope The Public Sector Overload - Is There Any? (Wellington: New Zealand Institute of Economic Research: Occasional paper no. 5, 1978).

For the contrary and earlier view see: Bacon, R.W. and Ellis W.A. Britains Economic Problems - Too Few Producers (London: Macmillan, second edition, 1978). New Zealand Monetary and Economic Council, The Public Sector (Wellington: New Zealand Monetary and Economic Council, Report No. 31, 1976). New Zealand Planning Council, Planning Perspectives 1978-1983 (Wellington: New Zealand Planning Council, Report No. 4, 1978).



internal budget deficit, and its consequential financing needs and implications; and the changes to the social welfare programme.<sup>3</sup> All this pointed to a change in the taxation aspects of government involvement, and to the financial implications associated with the way government financed its deficit.

A more recent work<sup>4</sup> examined another aspect of involvement - the historical perspective and rationale for government involvement in the economy. It showed that the conditions supporting and underlying the initial rationale for involvement often no longer hold, even though the involvement continues. Thus the effect of government's involvement has changed because the New Zealand economic system has itself changed in ways which often reduce the need for continuing (or direct) control and public ownership.

This is a valuable lesson. It is necessary to be reminded that the ambient and need for a particular policy is not a constant and that, from time to time, we should review old policies and take new directions. But there is still left open the question of whether the nature of government involvement has itself also changed. We still need answers to many questions.

What does Government provide to the community?

Has there been a change in the composition of what government provides to and takes away from us? How is that provision organised as between market and non-market activity? Has there been any change in government's market or non-market production? If we are interested in the effect of what government provides, should we include tax expenditures among government expenditures? If so, what light does this throw on the growth of social assistance transfer payments or other programmes? How does government organise and fund what it provides? Has there been a change in recent years towards provision by financing private sector production in particular lines of activity rather than by direct production by Government?

Changes could take place within a more or less constant relative real resource claim by government. If so, they would alter the impact and public perception of government's involvement. An understanding of what those effects might be requires knowledge of the nature of what the public sector does.

Fortunately now that the Statistics Department has produced the new New Zealand system of national accounts and has worked up a data base on this conceptual framework it is possible to examine government activity the 1970 and, to a lesser extent in the 1960s, in a more disaggregated way. It is possible now to examine in more detail the nature of public sector activity, and any change that has taken place during the last decade. This is what is done in the following tables.

---

<sup>3</sup> Most notably in: P. Jefferies, S. Snively and G. Thompson Taxing Issues (Wellington: New Zealand Planning Council: Report no.19(a), December 1981; and the Report of the Task Force on Tax Reform (Wellington: Government Printer, 1982): The Welfare State? (Wellington: New Zealand Planning Council, Report no.12, June 1979).

<sup>4</sup> G. Hawke, Government in the New Zealand Economy (Wellington: New Zealand Planning Council, Planning paper no.13 June, 1982).

### Nature of Involvement:

In this paper government's involvement is described in terms of what it provides and how it makes that provision - namely, how much is provided through the market and how much through non-market activity, and how that provision is organised and funded. Throughout the paper "public sector" is used in the sense of the Central Government sector as defined by the Department of Statistics, New Zealand System of National Accounts (NZSNA) (see Appendix 1).

### Extent of Involvement:

The extent of involvement is evaluated in terms of share of particular activity. For example, the extent of government's involvement as a provider of household income is the share of total household income provided by public sector organisations by way of wages and salaries, social security transfer payments, interest on public debt and subsidies.

Shares of particular activities calculated in this way are not, of course, comprehensive indicators of the role or extent of government involvement in the economy. There are many other functions of government that may ultimately affect the private sector. Examples are the administrative work on establishing Closer Economic Relations with Australia (CER) and on the industry studies programme, and the Commerce Commission's attempts to enforce various laws with respect to New Zealand business. In terms of national expenditure the outlay on this work is trivial, but the policy on commercial practices and protection is a major instrument by which government is shaping the market economy. Similar considerations apply to the work of a host of Government regulatory functionaries; to wage and price control regulations and other countless areas of government participation and intervention which do not show up as significant expenditures. Unfortunately, there is no way to quantify the effect on the economy of these activities.

### Structure of the Data Tables:

The material in this paper is broadly organised as follows. It starts by bringing aggregate information on taxation and public sector expenditure up to date in terms of the NZSNA classification. This information is valuable in its own right. But it is also used here as a benchmark, because it is the data base from which the public's current perception of, and inferences about, the nature and size of government have largely been drawn. A handy cross-reference to these data can accordingly help to put in perspective the ways in which any new data might expand, modify or enhance our current understanding.

Attention then moves on to the less well-known aspects of these aggregates. The market and non-market involvement of government as a producer of goods and services and as a provider of household income.

Each of these major divisions is then disaggregated and reorganized for 1971 through to 1981 to show public sector production by organizational structure and method of funding, public sector non-market expenditure and its composition when expenditure is more broadly defined to include tax expenditures and the provision of various categories of goods and services.

## SECTION 1

1. GOVERNMENT AS A TAX COLLECTOR

The tables in this section summarise relevant aspects of several recent studies<sup>5</sup> on the level, composition and incidence of our tax system. Main points shown by these tables are as follows.

- (i) Central government's total tax take rose substantially relative to Gross Domestic Product (GDP) over the last twenty years. After holding to a fairly stable average 22.8 percent of GDP throughout the 1960s the average rose in two steps - one to 24.7 percent for 1970 to 1974 the other in 1975 and 1976, to a new level where it remained fairly stable (1976-1981) at 28.8 percent of GDP (Table 1a).
- (ii) The total tax take did not grow as fast as government expenditure on average after 1975. The budget deficit before borrowing increased as a percentage of expenditure (Table 1c), and also as a percentage of total taxation (Table 1d).
- (iii) Within the growing total tax take, a major compositional change was taking place. Personnel income tax accounted for 43.7% of total tax take in 1968 and 66.8% in 1981 (Table 1d). Relative to expenditure all forms of revenue other than personal taxation (and borrowing) had been falling since 1972. In 1968, personal income taxes had financed about 37 percent of expenditure. By 1981 the percentage had risen to 52. (Table 1c).
- (iv) With respect to household income, the compositional change was even more pronounced. Relative to that base, personal income taxation was the only growing source of revenue after 1976 (Table 1e). As a percentage of household income, personal taxation had risen steadily from 1968 to 1974. It rose more sharply from 17 to 21.5 percent of income in 1975. The average was 22.2 percent from 1976 to 1981.
- (v) One of the factors contributing to the change in composition was the non-indexation of personal tax brackets,<sup>6</sup> although the number of brackets was reduced from 19 to 5 in 1978. Government also altered the tax scale, rebates and exemptions at various times. These were not unsubstantial changes. They were on average equivalent to a 5 percent per annum change in tax yield (see Table 1f).

---

<sup>5</sup> Most notably:

L.W. Cook and R. Broad The Effect of Increases in Nominal Incomes on Personal Income Tax Rates (Wellington: Department of Statistics, Dec. 1980).

P. Jefferies, S. Snively and G. Thompson, Taxing Issues (Wellington: New Zealand Planning Council, Report No. 19a, Dec. 1981)

Report of the Task Force on Tax Reform (Wellington: Government Printer, April 1982).

<sup>6</sup> Report of the Task Force on Tax Reform pp. 16-17.



- (vi) These discretionary changes in tax scales and brackets did not however substantially change the personal income tax structure. What they did was lower both average and marginal personal income tax rates from what they would otherwise have been, by altering the marginal and average tax rates in much the same proportion. As a consequence the relationship between the marginal and average tax did not change; the degree of progressivity and elasticity (as defined in table 1f) of the tax schedule was accordingly unaltered. Neither therefore was the system's real disposable income maintenance ratio changed significantly.<sup>7</sup> (Table 1f).
- (vii) With the parameters of the personal tax system unchanged, the 'shape' of the personal tax schedule did not change throughout the 1970s (see Graph 1). With rising nominal incomes it simply drifted steadily higher with respect to any given income level; so that individuals' average tax rates rose ever higher even when their relative position in the distribution of personal income, as well as their real gross income, remained constant. The effect, for example, was for the middle personal income earners of 1981 to end up paying the same average tax rate as had those with income some 50 percent above average in 1971.<sup>8</sup> (See Graph 1)

All of these changes probably affected public perceptions about the nature and size of government, but perhaps none more than the growing personal income tax take and the increasing budget deficit.

The growth in the deficit and government's borrowing requirement brought a substantial change, both in the monetary effects of fiscal policy<sup>9</sup> and in the nature of government's involvement in the New Zealand financial capital market after 1976. If the deficit was to be financed in the least inflationary way and in a way which formed part of a consistent fiscal policy<sup>10</sup>, government had to be more active and aggressive in marketing its securities in direct competition with all others for funds. In doing so,

---

<sup>7</sup> The ratio is the multiple of the rate of price increase by which nominal gross income must rise, given the existing personal income tax system, in order for real after tax income to remain constant. This ratio is accordingly the most relevant tax parameter to take as an indicator of the likely pressure taxes may have on wage claims. The ratio was well above 1 and increasing from 1.25 in 1974 to its November 1981 value of 1.33.

<sup>8</sup> For a more detailed and comprehensive treatment, showing the results right across the personal and household income distributions, see L.W. Cook and R.A. Broad, *op.cit.*

<sup>9</sup> After 1974, the net monetary effect of the deficit became expansionary whereas it had been contractionary for most of the 1960s and earlier 1970s. See:

R.A. Buckle & S. Snively. The Budget Impact on Aggregate Demand and the Money Supply (Wellington: New Zealand Institute of Economic Research. Discussion paper No.24. 1979);

and M.J. Pope & D. Grindell New Data for Stabilisation Purposes (Wellington: Reserve Bank, research paper No.16, Dec. 1974).

government became a direct borrower of small savers' funds. (The Inflation Adjusted Saving Bonds are an example). This focused attention on the implications of how the deficit was to be financed, and the possibility of financial crowding-out.

Some commentators<sup>11</sup> expressed concern about private sector investment being displaced through a lack of funds or by the disincentive effects of rising interest rates or (if the deficit were to be monetised) by further inflation undermining private production, especially for exporting and import substitution.

Others focused on the disincentive effect of taxation, in particular on the implications for future tax burdens if the economy did not quickly come out of recession. In that case, any continuation of deficit financing by borrowing in the open market or by monetisation could not be condoned as a short-term expedient to hold-up aggregate demand. If government expenditure were unchanged, financial crowding-out could be avoided only if tax revenue were increased. But the required increase, of about 25 percent (Table 1d, col.8) seemed horrendous in its implications for work disincentives, wage claims, emigration and tax evasion.<sup>12</sup>

As those holding this view saw it, the only sensible way out was to constrain the growth in government expenditure to a lower rate than the growth in GDP, so that the total tax rate (relative to GDP) need not rise in the future. They accordingly saw government as too big relative to the economy's currently depressed state, and to their opinion of its future prospects.

Individual taxpayers were probably more concerned with their own tax rates than with the Budget deficit and financial crowding-out. How this affected their perceptions would depend on how they viewed taxation. Two broad possibilities suggest themselves.

Some may view taxation as the annual price they pay for a lifetime's consumption (for themselves and dependents) of public goods and services. On this view, the increase in the personal tax rate may have led people to publicly question whether they were now paying an unreasonably high price for public goods as currently provided - for example, whether there should now be more or less spent on monetary benefits relative to education or to health

---

<sup>10</sup> On these points, and especially the stabilisation role of New Zealand's fiscal policy in the 1960s and 1970s see:

R.S. Deane and R.G. Smith The Stabilisation Role of Fiscal Policy (Wellington: New Zealand Planning Council, Planning paper No. 5. April 1980.)

<sup>11</sup> See for example: The Public Sector (Wellington: N.Z. Monetary and Economic Council, Report No.31, Oct. 1976; pp.5-6);

and D. Brash, Sir Frank Holmes, B. Green and G. Thompson, Investment Issues (Wellington: New Zealand Planning Council, Report No.16, June 1980, pp.68-71.

<sup>12</sup> Concern with this issue had repeatedly been expressed by the Planning council, in a series of papers, beginning with Planning Perspectives (Report No.5 1978).

or to less taxation. Questions of this sort indicate concern about the nature and composition of government's expenditure, and not simply about its relative size. But it is not always easy to discern this distinction between kind and relative size of government's provision. One's view as to what is the 'right' kind of provision is likely to affect one's perception of the size of government. Perhaps for any given tax rate, all are inclined to see the 'wrong' kind of government provision loom large relative to the 'right' kind.

Some individuals may however see taxation as a compulsory levy which confiscates command over resource use, and transfers it to government for government's own use. On this view, the increase in the average personal tax rate may have been seen as an increase in government's command over resource use and in its relative size. Some undoubtedly did see the change in this way. But that may be a mistake, for while it is true that taxation confiscates one's command over resources and transfers that to government, it is not valid to then say that this necessarily results in an increase in the relative use of resources by government. Government might simply transfer the command over resources taken as taxation on to some other person, firm or institution in the private sector. In that case, the increase in taxation rate is not a change in the private sector's command over resources, nor its actual resource use; it is a change in the distribution of private sector command over resources. The government sector's actual (physical) resource use or claim depends on its expenditure programme, not on its revenue sources. We can accordingly evaluate changes in relative size of government's resource use only in terms of its expenditure. That is done in the next section.

A major inference to be drawn from the information presented in this paper is that government's command of financial resources taken as taxation did increase substantially in the mid 1970s, and has been held more or less constant since then. A change which arose largely because the outward form of government as tax collector with respect to nominal income hardly changed in the 1970s - as shown in Table 1f and Graph 1, the structure of the tax system remained largely unaltered because Government chose not to index tax brackets or indirect tax rates.

But with respect to real income, however the extent of Government as tax collector underwent a substantive change, principally because Government did not effectively discourage the development of formal and informal arrangements which indexed personal income to our inflation rate<sup>13</sup>. The consequence of this policy of partial and one-sided indexation of the tax-income-inflation nexus was to twist the distribution of aggregate tax take in real terms so as to directly take an increasingly higher average amount, and proportion of the total tax take, from the indexed growth in personal income.

---

13 Indeed, it sometimes actively promoted such indexation, as for example in monetary benefits and, following the introduction in 1979 of the crawling-peg exchange rate system, in exporters' incomes. Under this system (which ran from June 1979 to June 22 1982) the New Zealand exchange rate was changed by a certain proportion each month. The size of the change was dependent on the difference between the internal, and (a trade weighted) world inflation rate. But since our inflation rate has been higher than the world rate throughout the 1970s, devaluations were undertaken consistently each month. Such devaluations increase exporters' receipts. So, in effect, the new regime was a partial indexation of exporters' gross income to the internal inflation rate.



This dramatic change in the extent of Government's personal income tax take should not however be identified as a change in the total burden or incidence of taxation. There is still the question of who ultimately pays indirect and company taxes. The ultimate burden or incidence of all taxation falls on personal and household income - more strictly, it falls on people, rather than income - or capital. On that view total taxation as a share of household income is the appropriate indicator of burden. This share is shown in column 6 Table 1a. Total taxation rose from an average 30.8 percent of household income for the 1960s to 36.5 percent by 1975, holding more or less constant at that level (1975 to 1981). This is similar, but not identical, to the pattern for total taxation relative to GDP.

Two important points can be drawn from the above discussion.

- (i) 5.7 percent more of household income was taken in taxation in the late 1970s than in the 1960s.
- (ii) It might be both more valid and more useful to view the rise in personal income taxation relative to other forms of taxation as a change in the distribution of the incidence of taxation among all households and individuals, rather than in terms of the direct and indirect split or the distribution of taxation as between company and personal taxes. Viewed in this light, tax reform could be seen to lie not just in lowering the average tax rate or switching from personal to indirect taxes, but in determining, for any given annual tax rate or direct-indirect split, the appropriate distribution of its total incidence among all individuals and households - that is, among, the ultimate taxpayers. Issues such as the question of the appropriate tax base; whether we should have expenditure or capital gains taxes; or whether ours is a highly developed cost-plus mark-up pricing system with indexation arrangements in which all indirect and company taxes are either pushed forward into prices or backward (in less than otherwise dividends) onto personal income, can then be seen as matters which help determine the distribution of the incidence among the ultimate taxpayers.

TABLE 1a

**TAX AGGREGATES AS PROPORTION OF GROSS  
DOMESTIC PRODUCT AND HOUSEHOLD INCOME**

| March<br>Year | Direct<br>Taxation<br>\$m<br>(1) | Indirect<br>Taxation<br>\$m<br>(2) | Total<br>Taxation<br>\$m<br>(3) | Total<br>Taxation:<br>percent<br>of Gross<br>Domestic<br>Product<br>(4) | Direct<br>Personal<br>Tax:<br>percent of<br>Household<br>Income<br>(5) | Total<br>Taxation:<br>percent of<br>Household<br>Income<br>(6) |
|---------------|----------------------------------|------------------------------------|---------------------------------|---|--|--|
| 1962          | 457                              | 259                                | 716                             | 24.9  | 14.1   | 32.4   |
| 1963          | 433                              | 251                                | 684                             | 22.0  | 12.2   | 28.8   |
| 1964          | 467                              | 275                                | 742                             | 21.8  | 11.8   | 28.7   |
| 1965          | 548                              | 296                                | 844                             | 22.7  | 12.7   | 30.2   |
| 1966          | 606                              | 312                                | 918                             | 22.9  | 13.3   | 30.6   |
| 1967          | 690                              | 299                                | 989                             | 23.6  | 14.1   | 31.8   |
| 1968          | 698                              | 314                                | 1012                            | 23.1  | 13.7   | 31.5   |
| 1969          | 718                              | 340                                | 1058                            | 22.8  | 14.2   | 31.5   |
| 1970          | 808                              | 372                                | 1180                            | 23.0  | 14.6   | 32.0   |
| 1971          | 989                              | 433                                | 1444                            | 24.8  | 15.7   | 33.2   |
| 1972          | 1189                             | 511                                | 1706                            | 24.9  | 16.8   | 33.3   |
| 1973          | 1346                             | 580                                | 1926                            | 24.4  | 16.8   | 31.7   |
| 1974          | 1735                             | 659                                | 2394                            | 26.2  | 17.0   | 31.2   |
| 1975          | 2180                             | 685                                | 2865                            | 28.6  | 21.5   | 36.5   |
| 1976          | 2553                             | 831                                | 3185                            | 27.7  | 20.1   | 34.4   |
| 1977          | 2890                             | 955                                | 3844                            | 27.9  | 21.5   | 36.1   |
| 1978          | 3540                             | 1086                               | 4626                            | 30.4  | 23.6   | 38.2   |
| 1979          | 3717                             | 1272                               | 4987                            | 28.5  | 22.2   | 34.8   |
| 1980          | 4526                             | 1493                               | 6019                            | 28.8  | 22.1   | 34.9   |
| 1981          | 5349                             | 1761                               | 7050                            | 29.5  | 23.7   | 36.4   |

**Source:**

Columns 1, 2, 3: Budget Tables:

Column 4: Derived from Column 3 and Department of Statistics, Monthly Abstract of Statistics, Feb. 1982 p.80; and D. Grindell (ed). Consolidated national accounts for New Zealand on an SNA basis (Wellington: Reserve Bank of New Zealand, Research Paper No. 32. May 1981).

Columns 5 and 6: Derived from Budget and Table 4a.

TABLE 1b SOURCES OF FINANCE OF NET GOVERNMENT EXPENDITURE

\$(Million)

| MARCH YEAR | PERSONAL INCOME TAX | COMPANY INCOME TAX | CUSTOMS DUTY & SALES TAX | HIGHWAYS TAX | MOTOR SPIRIT TAX | OTHER TAXES | INTEREST PROFITS & MISC RECS | TOTAL GOVT DEFICIT |
|------------|---------------------|--------------------|--------------------------|--------------|------------------|-------------|------------------------------|--------------------|
|            | (1)                 | (2)                | (3)                      | (4)          | (5)              | (6)         | (7)                          | (8)                |
| 1968       | 442.9               | 229.9              | 206.5                    | 63.0         | 0.0              | 70.1        | 89.0                         | 110.5              |
| 1969       | 475.8               | 215.7              | 225.0                    | 66.3         | 0.0              | 75.5        | 53.4                         | 134.8              |
| 1970       | 541.2               | 238.0              | 250.4                    | 78.8         | 0.0              | 72.6        | 96.7                         | 75.8               |
| 1971       | 673.6               | 283.7              | 303.9                    | 82.0         | 0.0              | 101.8       | 110.5                        | 80.6               |
| 1972       | 863.8               | 297.3              | 337.5                    | 89.7         | 0.0              | 118.6       | 123.5                        | 72.3               |
| 1973       | 1015.7              | 298.8              | 381.4                    | 95.7         | 0.0              | 135.0       | 129.2                        | 206.0              |
| 1974       | 1309.8              | 386.1              | 452.2                    | 103.2        | 0.0              | 141.5       | 42.8                         | 241.7              |
| 1975       | 1694.0              | 442.0              | 510.0                    | 104.8        | 0.0              | 114.5       | 206.5                        | 390.4              |
| 1976       | 1867.5              | 428.3              | 576.9                    | 101.2        | 76.3             | 135.1       | 257.3                        | 1001.7             |
| 1977       | 2296.2              | 532.3              | 652.6                    | 107.4        | 100.4            | 156.0       | 227.2                        | 506.1              |
| 1978       | 2887.6              | 595.2              | 703.0                    | 126.2        | 102.2            | 212.1       | 348.0                        | 694.4              |
| 1979       | 3198.0              | 457.0              | 794.6                    | 159.1        | 154.2            | 226.4       | 413.0                        | 1446.1             |
| 1980       | 3815.2              | 650.4              | 1013.9                   | 139.5        | 177.6            | 223.4       | 539.8                        | 1026.9             |
| 1981       | 4709.9              | 589.1              | 1189.2                   | 189.3        | 139.5            | 233.9       | 557.7                        | 1524.8             |

Source: L W Cook and M J Pope Reference Information for Fiscal Reform (N.Z. Association of Economists, August Conference, 1981)

TABLE 1c SOURCES OF FINANCE OF NET GOVERNMENT EXPENDITURE AS A PROPORTION OF NET GOVERNMENT EXPENDITURE

(Percentage)

| MARCH YEAR | PERSONAL INCOME TAX | COMPANY INCOME TAX | CUSTOMS DUTY & SALES TAX | HIGHWAYS TAX | MOTOR SPIRIT TAX | OTHER TAXES | INTEREST PROFITS & MISC RECS | TOTAL GOVT DEFICIT |
|------------|---------------------|--------------------|--------------------------|--------------|------------------|-------------|------------------------------|--------------------|
|            | (1)                 | (2)                | (3)                      | (4)          | (5)              | (6)         | (7)                          | (8)                |
| 1968       | 36.5                | 19.0               | 17.0                     | 5.2          | 0.0              | 5.8         | 7.3                          | 9.1                |
| 1969       | 38.2                | 17.3               | 18.1                     | 5.3          | 0.0              | 6.1         | 4.3                          | 10.8               |
| 1970       | 40.0                | 17.6               | 18.5                     | 5.8          | 0.0              | 5.4         | 7.1                          | 5.6                |
| 1971       | 41.2                | 17.3               | 18.6                     | 5.0          | 0.0              | 6.2         | 6.8                          | 4.9                |
| 1972       | 45.4                | 15.6               | 17.7                     | 4.7          | 0.0              | 6.2         | 6.5                          | 3.8                |
| 1973       | 44.9                | 13.2               | 16.9                     | 4.2          | 0.0              | 6.0         | 5.7                          | 9.1                |
| 1974       | 48.9                | 14.5               | 16.9                     | 3.9          | 0.0              | 5.3         | 1.6                          | 9.0                |
| 1975       | 48.9                | 12.8               | 14.7                     | 3.0          | 0.0              | 3.3         | 6.0                          | 11.3               |
| 1976       | 42.0                | 9.6                | 13.0                     | 2.3          | 1.7              | 3.0         | 5.8                          | 22.5               |
| 1977       | 50.2                | 11.6               | 14.3                     | 2.3          | 2.2              | 3.4         | 5.0                          | 11.1               |
| 1978       | 50.9                | 10.5               | 12.4                     | 2.2          | 1.8              | 3.7         | 6.1                          | 12.2               |
| 1979       | 46.7                | 6.7                | 11.6                     | 2.3          | 2.3              | 3.3         | 6.0                          | 21.1               |
| 1980       | 50.3                | 8.6                | 13.4                     | 1.8          | 2.3              | 2.9         | 7.1                          | 13.5               |
| 1981       | 51.6                | 6.4                | 13.0                     | 2.1          | 1.5              | 2.6         | 6.1                          | 16.7               |

Source: L W Cook and M J Pope, op.cit.

**TABLE 1d** SOURCES OF FINANCE OF NET GOVERNMENT EXPENDITURE  
AS A PROPORTION OF TOTAL TAXATION REVENUE

(Percentage)

| MARCH YEAR | PERSONAL INCOME TAX | COMPANY INCOME TAX | CUSTOMS DUTY & SALES TAX | HIGHWAYS TAX | MOTOR SPIRIT TAX | OTHER TAXES | INTEREST PROFITS & MISC RECS | TOTAL GOVT DEFICIT |
|------------|---------------------|--------------------|--------------------------|--------------|------------------|-------------|------------------------------|--------------------|
|            | (1)                 | (2)                | (3)                      | (4)          | (5)              | (6)         | (7)                          | (8)                |
| 1968       | 43.7                | 22.7               | 20.4                     | 6.2          | 0.0              | 6.9         | 8.8                          | 10.9               |
| 1969       | 45.0                | 20.4               | 21.3                     | 6.3          | 0.0              | 7.1         | 5.0                          | 12.7               |
| 1970       | 45.8                | 20.2               | 21.2                     | 6.7          | 0.0              | 6.1         | 8.2                          | 6.4                |
| 1971       | 46.6                | 19.6               | 21.0                     | 5.7          | 0.0              | 7.0         | 7.6                          | 5.6                |
| 1972       | 50.6                | 17.4               | 19.8                     | 5.3          | 0.0              | 6.9         | 7.2                          | 4.2                |
| 1973       | 52.7                | 15.5               | 19.8                     | 5.0          | 0.0              | 7.0         | 6.7                          | 10.7               |
| 1974       | 54.7                | 16.2               | 18.9                     | 4.3          | 0.0              | 5.9         | 1.8                          | 10.1               |
| 1975       | 59.1                | 15.4               | 17.8                     | 3.7          | 0.0              | 4.0         | 7.2                          | 13.6               |
| 1976       | 58.6                | 13.4               | 18.1                     | 3.2          | 2.4              | 4.2         | 8.1                          | 31.4               |
| 1977       | 59.7                | 13.8               | 17.0                     | 2.8          | 2.6              | 4.1         | 5.9                          | 13.2               |
| 1978       | 62.4                | 12.9               | 15.2                     | 3.2          | 3.1              | 4.5         | 8.3                          | 15.0               |
| 1979       | 64.1                | 9.2                | 15.9                     | 3.2          | 3.1              | 4.5         | 8.3                          | 29.0               |
| 1980       | 63.4                | 10.8               | 16.8                     | 2.3          | 3.0              | 3.7         | 9.0                          | 17.1               |
| 1981       | 66.8                | 8.4                | 16.9                     | 2.7          | 2.0              | 3.3         | 7.9                          | 21.4               |

Source: L W Cook and M J Pope, op.cit.

**TABLE 1e** SOURCES OF FINANCE OF NET GOVERNMENT EXPENDITURE  
AS A PROPORTION OF TOTAL HOUSEHOLD INCOME

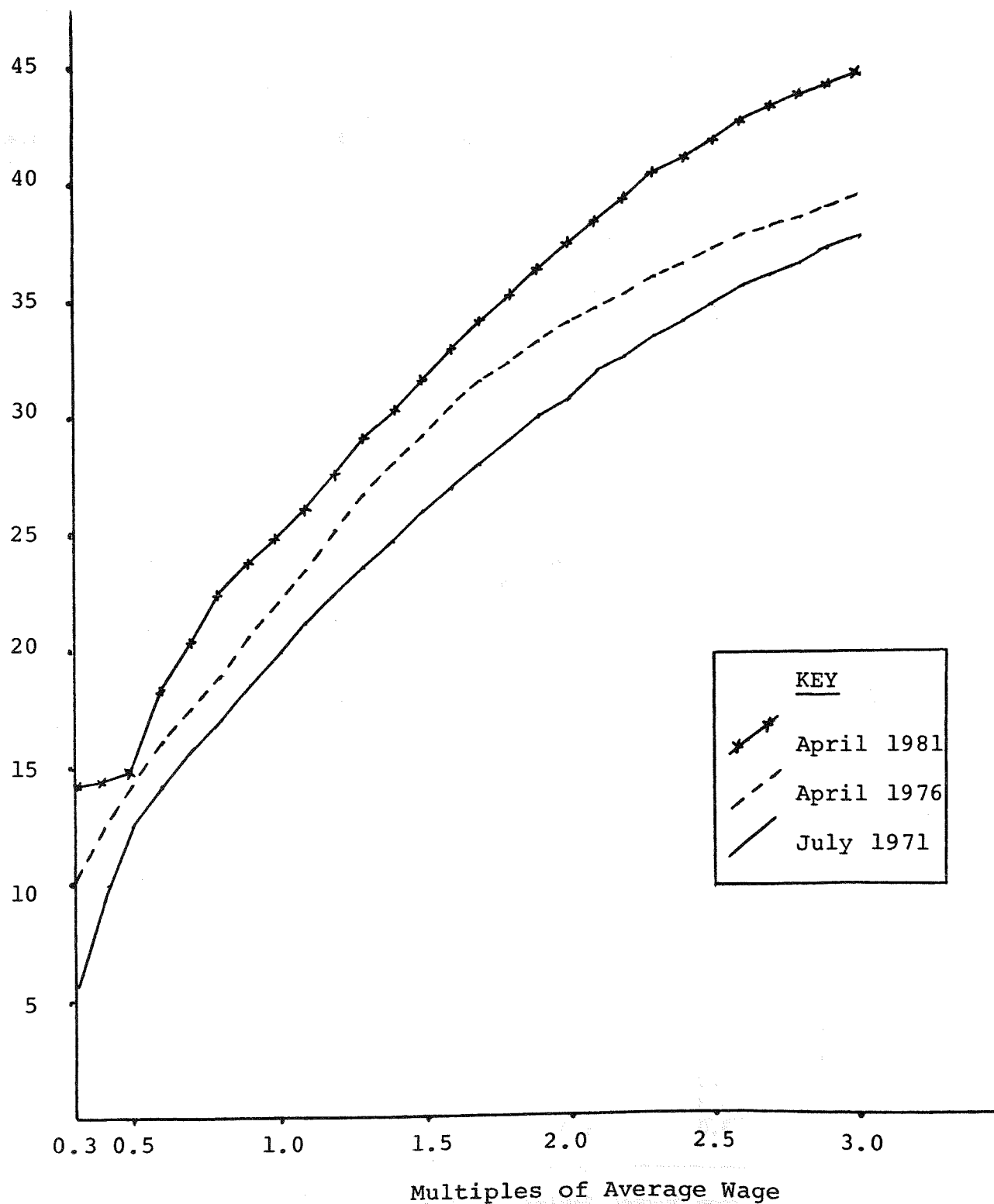
(Percentage)

| MARCH YEAR | PERSONAL INCOME TAX | COMPANY INCOME TAX | CUSTOMS DUTY & SALES TAX | HIGHWAYS TAX | MOTOR SPIRIT TAX | OTHER TAXES | INTEREST PROFITS & MISC RECS | TOTAL GOVT DEFICIT |
|------------|---------------------|--------------------|--------------------------|--------------|------------------|-------------|------------------------------|--------------------|
|            | (1)                 | (2)                | (3)                      | (4)          | (5)              | (6)         | (7)                          | (8)                |
| 1968       | 13.7                | 7.2                | 6.4                      | 2.0          | 0.0              | 2.2         | 2.8                          | 5.4                |
| 1969       | 14.2                | 6.4                | 6.7                      | 2.0          | 0.0              | 2.2         | 1.6                          | 4.0                |
| 1970       | 14.6                | 6.5                | 6.8                      | 2.1          | 0.0              | 2.0         | 2.6                          | 2.1                |
| 1971       | 15.7                | 6.6                | 7.1                      | 1.4          | 0.0              | 2.4         | 2.6                          | 1.9                |
| 1972       | 16.8                | 5.8                | 6.6                      | 1.8          | 0.0              | 2.3         | 2.4                          | 1.4                |
| 1973       | 16.8                | 4.9                | 6.3                      | 1.5          | 0.0              | 2.2         | 2.1                          | 3.4                |
| 1974       | 17.0                | 5.0                | 6.0                      | 1.3          | 0.0              | 1.9         | 0.5                          | 3.1                |
| 1975       | 21.5                | 5.6                | 6.5                      | 1.4          | 0.0              | 1.5         | 2.6                          | 5.0                |
| 1976       | 20.1                | 4.6                | 6.3                      | 1.1          | 0.8              | 1.5         | 2.7                          | 10.8               |
| 1977       | 21.5                | 5.0                | 6.1                      | 1.0          | 1.0              | 1.5         | 2.2                          | 4.7                |
| 1978       | 23.6                | 4.9                | 5.9                      | 1.1          | 0.9              | 1.8         | 2.8                          | 5.7                |
| 1979       | 22.2                | 3.2                | 5.5                      | 1.1          | 1.1              | 1.7         | 2.8                          | 10.0               |
| 1980       | 22.1                | 3.8                | 5.8                      | 0.8          | 1.1              | 1.3         | 3.1                          | 5.8                |
| 1981       | 23.7                | 3.0                | 6.0                      | 1.9          | 0.7              | 1.1         | 2.8                          | 7.9                |

Source: Derived from Budget Tables and Table 4a.

GRAPH 1. EFFECT OF SPECIFIED TAX SCHEDULES ON AVERAGE TAX RATES AT GIVEN LEVELS OF AVERAGE WEEKLY EARNINGS

Tax Rate  
%



Source: L.W. Cook & M.J. Pope op.cit.

TABLE 1f

## COMPOSITE PARAMETERS OF THE PERSONAL INCOME TAX SYSTEM

| Date | Surveyed Average Weekly <sup>1</sup> Earnings | Average Tax Rate    |                         | Change in Average Tax Rate from Previous Quarter, due to | Change in Tax Yield | Marginal Tax Rate |                         | Tax Elasticity |                         | Real Disposable Income Maintenance Ratio |                         |      |
|------|---|---------------------|-------------------------|--|---------------------|-------------------|-------------------------|----------------|-------------------------|--|-------------------------|------|
|      |   | Actual <sup>2</sup> | Unadjusted <sup>3</sup> |  |                     | Actual            | Unadjusted <sup>3</sup> | Actual         | Unadjusted <sup>3</sup> | Actual                                   | Unadjusted <sup>3</sup> |      |
|      | (1)   | (2)                 | (3)                     | (4)  | (5)                 | (6)               | (7)                     | (8)            | (9)                     | (10)                                     | (11)                    | (12) |
|      | \$  | (percent)           |                         |  | (percent)           |                   | (percent)               |                |                         |  |                         |      |
| 1974 | May   | 80.94               | 22.6                    |  |                     |                   | 37.5                    |                | 1.66                    |  | 1.24                    |      |
|      | August  | 88.37               | 23.5                    | 0.9  |                     |                   | 38.7                    |                | 1.65                    |  | 1.25                    |      |
|      | November                                      | 88.94               | 23.5                    | 0.1  |                     |                   | 38.8                    |                | 1.65                    |  | 1.25                    |      |
| 1975 | February                                      | 93.46               | 24.1                    | 0.6  |                     |                   | 39.5                    |                | 1.64                    |  | 1.25                    |      |
|      | May   | 94.76               | 24.3                    | 0.2  |                     |                   | 39.7                    |                | 1.63                    |  | 1.25                    |      |
|      | August  | 96.59               | 23.4                    | 0.4  | - 1.3               | - 5.3             | 39.0                    | 40.0           | 1.67                    | 1.62                                     | 1.26                    | 1.26 |
|      | November                                      | 98.05               | 23.7                    | 0.3  |                     |                   | 39.4                    |                | 1.66                    |  | 1.26                    |      |
| 1976 | February                                      | 103.55              | 24.4                    | 0.7  |                     |                   | 40.2                    |                | 1.65                    |  | 1.26                    |      |
|      | May   | 104.99              | 24.7                    | 0.3  |                     |                   | 40.5                    |                | 1.64                    |  | 1.27                    |      |
|      | August  | 110.77              | 25.5                    | 0.8  |                     |                   | 41.4                    |                | 1.62                    |  | 1.27                    |      |
|      | November                                      | 111.44              | 25.5                    | 0.3  | - 0.3               | - 0.8             | 42.2                    | 41.7           | 1.65                    | 1.62                                     | 1.29                    | 1.27 |
| 1977 | February                                      | 113.30              | 25.7                    | 0.2  |                     |                   | 42.3                    |                | 1.64                    |  | 1.29                    |      |
|      | May   | 121.32              | 25.7                    | 0.9  | - 0.9               | - 3.4             | 43.4                    |                | 1.69                    | 1.62                                     | 1.31                    | 1.29 |
|      | August  | 122.87              | 25.9                    | 0.2  |                     |                   | 43.6                    |                | 1.69                    |  | 1.32                    |      |
|      | November                                      | 125.38              | 26.1                    | 0.2  |                     |                   | 43.9                    |                | 1.68                    |  | 1.32                    |      |
| 1978 | February                                      | 129.80              | 25.1                    | 0.6  | - 1.6               | - 5.7             | 42.1                    | 44.4           | 1.68                    | 1.66                                     | 1.29                    | 1.32 |
|      | May   | 132.81              | 25.2                    | 0.4  | - 0.3               | - 1.2             | 42.5                    | 42.5           | 1.68                    | 1.66                                     | 1.30                    | 1.30 |
|      | August  | 140.27              | 26.1                    | 0.9  |                     |                   | 43.2                    |                | 1.66                    |  | 1.30                    |      |
|      | November                                      | 142.72              | 24.3                    | 0.4  | - 2.2               | - 8.0             | 41.2                    | 43.5           | 1.68                    | 1.64                                     | 1.28                    | 1.30 |
| 1979 | February                                      | 149.69              | 25.2                    | 0.9  |                     |                   | 42.0                    |                | 1.67                    |  | 1.29                    |      |
|      | May   | 154.70              | 25.7                    | 0.5  | - 0.0               | - 0.2             | 42.4                    | 42.5           | 1.65                    | 1.65                                     | 1.29                    | 1.29 |
|      | August  | 156.97              | 26.0                    | 0.3  |                     |                   | 42.8                    |                | 1.64                    |  | 1.29                    |      |
|      | November                                      | 168.87              | 25.5                    | 1.1  | - 1.6               | - 5.9             | 41.7                    |                | 1.63                    | 1.62                                     | 1.28                    | 1.30 |
| 1980 | February                                      | 177.33              | 26.2                    | 0.7  |                     |                   | 42.4                    |                | 1.62                    |  | 1.28                    |      |
|      | May   | 183.92              | 25.9                    | 0.6  | - 0.9               | - 3.0             | 43.0                    | 43.1           | 1.66                    | 1.61                                     | 1.30                    | 1.29 |
|      | August  | 191.89              | 26.6                    | 0.7  |                     |                   | 43.8                    |                | 1.65                    |  | 1.31                    |      |
|      | November                                      | 198.86              | 27.1                    | 0.5  |                     |                   | 44.4                    |                | 1.64                    |  | 1.31                    |      |
| 1981 | February                                      | 212.24              | 26.6                    | 1.0  | - 1.5               | - 5.0             | 43.6                    | 45.3           | 1.64                    | 1.61                                     | 1.30                    | 1.31 |
|      | May   | 224.30              | 27.0                    | 0.9  | - 0.5               | - 2.2             | 44.8                    | 44.6           | 1.66                    | 1.62                                     | 1.32                    | 1.31 |
|      | August  | 233.95              | 27.8                    | 0.8  |                     |                   | 45.7                    |                | 1.64                    |  | 1.33                    |      |
|      | November                                      | 239.03              | 28.3                    | 0.5  |                     |                   | 46.2                    |                | 1.63                    |  | 1.33                    |      |

**Notes:**

- 1 Surveyed average weekly earnings is the value of average earnings for all persons surveyed by the Labour Department Employment Information Survey. Before February 1980 the survey dates differ from those specified, and these values are estimates only.
- 2 Average tax rate is the tax accrued during the reference quarter as a proportion of total taxable income. Estimates based on Household Survey 1979/80.
- 3 Indicates rate or ratio which would have applied in the absence of the budget measure effective from that quarter.

**Definitions**

**Tax Elasticity** is the ratio of marginal to average tax rate. It gives the proportional rate at which tax payments increase following a one percent increase in income. So, for example, in November 1981 a one percent increase in average household earnings would raise tax payments of a person receiving such average earnings by 1.63 percent.

**Real Disposable Income Maintenance Ratio** this is the multiple by which nominal income growth must, at existing tax rates exceed the inflation rate if real after-tax income is to remain constant. The ratio in column 11 is an average for all personal income. It is not therefore representative of any particular income; nor does it show how variable that ratio may be across the income distribution. On these points see The Report of the Task Force on Tax Reform (April 1982) pp. 123-125.

Source: L W Cook and M J Pope op cit; updated columns 1 to 4, from Report of Task Force on Tax Reform (April 1982) Table 2-10.



## SECTION 2

GOVERNMENT AS A SPENDER

2.

In this section are shown, in broad aggregate terms, Central Government Expenditures relative to gross National Expenditures.

Tables 2a and 2b bring up to date, in terms of the NZSNA aggregates, information covered in earlier publications<sup>14</sup>. Broadly they confirm the earlier results. They show the following main facts:

- (i) There has been an increase in the size of Central Government's expenditure relative to national expenditure, but not in its share in national use of labour, since the mid 1970s;
- (ii) the increase in relative share of nominal expenditure is quite marked, coming, for the most part, in two steps, one in the late 1960s and the other after 1976. The relative share of transfer and subsidy payments remained more or less constant in the 1960s, and grew throughout the 1970s, particularly after 1976. Financial capital transfers add to this growth, taking the total share from 25.2 percent in the early 1960s to 39.4 percent by 1980/81.
- (iii) the increase in relative real resource use is slight. There was no significant change in government's relative use of labour even though that use was up a little from 1975 - up about one percent of the labour force from the 1960s and early 1970s. The more pronounced change was the rise in central government's real expenditure relative to real Gross National Expenditure from 1976. It rose from an average of about 17.1 percent to 21.0 percent by 1979, but dropped to an average of about 19.0 percent in the last two years.

However, these findings cannot be taken as evidence of real-direct resource crowding-out, since these changes occurred when there was generalised excess supply of resources and productive capacity. Unemployment and unused private sector productive capacity increased in the late 1970s but not because the resources were squeezed-out of private sector use by a growing government sector. The change followed the down-turn in private sector activity caused by the impact of the world recession of the late 1970s. At the same time as this was happening, government's production activity, being less sensitive to the fluctuations in market demand, tended to continue to grow at much the same real rate as it had done for most of the post-World War II period. Government's real expenditure rose relative to total National Expenditure more as a piece of cyclical arithmetic than because of any upsurge in the size of the Public Sector.

---

14 Such as: Public Expenditure and its Financing: 1950-1979 (Wellington: New Zealand Planning Council, Report 12a, June 1979).

Accordingly, these newly available expenditure data do not suggest any need to revise the earlier work<sup>15</sup> which had shown there was little support for the real resource crowding-out view of expenditure. This is especially so if transfer payments are not regarded as a claim on, or use of, resources by Government. It is debatable whether they are. When making such payments, government is not itself directly using resources; it is merely a medium through which the transfers are effected.

Transfer payments may change the distribution of income. If so, the resource cost stems from the differential effect on behaviour and expenditure patterns of that income variation; different products, with different resource input mixes, may now be demanded and supplied. So at most, all that could be taken as a government resource use is the net difference in the resource usage from what it would have been had there been no change in income distribution and demand pattern. It is not however easy to ascertain with any certainty how the income distribution may change. For example, suppose the transfers are financed from tax receipts. Government is then shifting money income from one segment of the economy to another - e.g. from the employed to the unemployed and the superannuitant; from taxpayers in general to exporters and farmers; from farmer - exporter - taxpayers to sickness beneficiaries; from single income taxpayers to the employed with young families, and so on through the incredibly complex web of cross-subsidisation characteristic of a modern mixed economy such as ours. Here we are each in varying degree cross-subsidising each others activity; so it is impossible to precisely identify who gains and who loses income in this transfer process - or therefore how the income distribution is affected.

The issue is no more clearcut if the transfer is financed from borrowing. In this case, government is shifting income from future generations of taxpayers (on whom the interest and amortisation costs of the borrowing will fall) to the present generation. Even if we were sure about how this affected the income distribution, we should still be faced with a problem in determining the differential effect of that change on behaviour and expenditure patterns.

The matter is however even more complex, for we need to consider also the differential effects associated with alternative sources of borrowing and whether inflation and/or higher interest rates crowd-out private sector expenditures. The net outcome in either case is not self-evident. Moreover, any search for a definitive result may be misplaced. When government is running a budget deficit - when it has to borrow to finance its expenditure - the apportionment of the funding of any particular item of expenditure between tax revenue and borrowing is an entirely arbitrary and rather vacuous exercise.

In such circumstances, the only safe approach would seem to be to evaluate the government's expenditure and revenue programme taken as a whole - comparisons might then usefully be made between alternative tax structures and their associated alternative expenditure programmes, their budget deficits, and their methods of finance. This would be an evaluation in terms of

---

15 Mervyn J. Pope The Public Sector Over-load - Is There Any? (Wellington: N.Z. Institute of Economic Research; Occasional Paper No. 5. 1978).

alternative fiscal and monetary configurations (or policy packages), rather than in terms of any specific tax or expenditure items. Here the relevant form of crowding-out is not direct real resource crowding-out; the more subtle indirect forms of crowding out which are quite independent of the 'size' of the Public Sector are those which must be considered.

Social assistance transfer payments are therefore probably better viewed as part of government's role as a provider of income, than as part of its size or direct resource usage. This is the approach taken in the next section.

TABLE 2a

NOMINAL GOVERNMENT EXPENDITURE RELATIVE TO NOMINAL GROSS NATIONAL EXPENDITURE  
(Percentages)

|   | Average<br>(1)   | Average<br>(2)    | Average<br>(3)   | Average<br>(4)    |             |
|---|------------------|-------------------|------------------|-------------------|-------------|
| <u>Central Government</u>   | 1960/1<br>1964/5 | 1965/6<br>1969/70 | 1970/1<br>1974/5 | 1975/6<br>1979/80 | 1980/1      |
| Current Expenditure on<br>goods and services                          | 9.5              | 11.4              | 11.5             | 13.4              | 15.3        |
| Capital Formation   | 4.4              | 3.9               | 4.9              | 6.3               | 4.3         |
| <u>Total Final Expenditure</u>  | <u>13.9</u>      | <u>15.3</u>       | <u>16.4</u>      | <u>19.7</u>       | <u>19.5</u> |
| Current Transfers and<br>Subsidies                                    | 11.3             | 10.5              | 12.5             | 17.4              | 17.8        |
| <u>Sub-Total</u>  | <u>25.2</u>      | <u>25.8</u>       | <u>28.9</u>      | <u>37.1</u>       | <u>37.3</u> |
| Net Financial (Capital)<br>transfers and miscellaneous<br>investments |                  |                   | 1.3              | 2.0               | 2.1         |
| <b>TOTAL</b>  |                  |                   | 30.2             | 39.1              | 39.4        |

Source: Statistics Department Monthly Abstract of Statistics; D Grindell (ed) Consolidated National Accounts for New Zealand on an SNA basis (Wellington: Reserve Bank research paper 32, May 1981) and Budget Tables 5 and 6.

TABLES 2b SOME QUANTITATIVE ASPECTS OF CENTRAL GOVERNMENT ACTIVITY

| March<br>Year | Real Gross National<br>Expenditure (at<br>1976/7 prices) | Central Government Real<br>expenditure <sup>1</sup> on goods<br>and services as proportion<br>of Real Gross National<br>Expenditure | Employees paid by<br>the Central<br>Government as<br>proportion of<br>the labour force |
|---------------|--|---|--|
|               | (1)  | (2)   | (3)  |
| 1961          |  |   |  |
| 1962          | 8128   | 16.9  | NA   |
| 1963          | 8449   | 16.5  | NA   |
| 1964          | 8950   | 17.0  | 19.8   |
| 1965          | 9599   | 17.1  | NA   |
| 1966          | 10327  | 16.9  | NA   |
| 1967          | 10661  | 17.9  | 19.7   |
| 1968          | 10010  | 17.8  | 19.9   |
| 1969          | 9836   | 17.0  | 19.5   |
| 1970          | 10563  | 16.2  | 19.7   |
| 1971          | 11298  | 16.1  | 19.2   |
| 1972          | 11533  | 17.4  | 19.4   |
| 1973          | 12270  | 18.9  | 19.4   |
| 1974          | 13897  | 16.3  | 20.5   |
| 1975          | 15406  | 16.9  | 21.1   |
| 1976          | 13779  | 20.7  | 21.0   |
| 1977          | 13685  | 19.5  | 20.7   |
| 1978          | 13050  | 20.6  | 20.9   |
| 1979          | 13016  | 21.2  | 20.8   |
| 1980          | 13320  | 18.8  | 20.7   |
| 1981          | 13146  | 18.7  | NA   |

Note: 1

There are complications in measuring real or constant price values for non-market outputs. Such output is not sold at a price, it is valued as the cost of production. So if we take the production inputs at a constant price, we are in effect saying non-market constant price output grows at the same rate as inputs into that production. This is how column 2 is valued in part. (The other part is Government market output). The same statistical convention is used by the Government Statistician to value Government's contribution to GDP.

This points to one difficulty in using the ratio shown in column 2. But even if we had a common convention for valuing market and non-market output, we still could not assert that constancy in these ratios clearly showed - or even indicated - that there had been no change in the public sector's relative claim on real national resources. After all, all these ratios can show is the sectors relative claim on the goods and services available to the economy - available both from home and imported production. They do not and cannot show claims on a nation's productive resources - on its labour, capital, land and natural resources. Nor would it be reasonable to presume that the change in

this (or any other expenditure) ratio over time indicates the direction of the particular sector's relative claim on productive inputs. (See Pope, op.cit; 1978). Those claims can be shown only by direct estimates of resource use. Column (3) is accordingly the better indicator of relative resource claim.

**Source:**

Column 1: 1971/2 D Grundell(ed) Consolidated National Accounts for New Zealand on a SNA basis

(Wellington : Reserve Bank Research paper No. 32 May 1981) and up-dates.

Column 2 Reserve Bank Research paper No. 32

Column 3 Year Books: section on Functions of Government Departments. The State Services - for example p.969, 1975 and p.865, 1979.

## SECTION 3

3.

GOVERNMENT AS A PRODUCER

The output of government agencies contributes to the aggregate supply of goods and services which are available to the population. The products of Central Government are many and varied. Public schools produce education. Courts produce adjudication. Agricultural extension services produce technical advice. Armies, navies and airforces produce national defence. These, like many other public services, constitute non-market production by Central Government. That is, these services are not sold for a price, in the market. Instead citizens pay for them jointly and indirectly through the taxation system, and their distribution to citizens is based on a variety of administrative criteria.

The extent of this production is shown in Table 3a, Columns 1 and 5. In 1979/80 Central Government's non-market production was valued at \$2,244 million, or almost 11% of N.Z.'s total output of goods and services (Table 3b column 1). Central Government agencies dominate in the production of non-market output. In 1979/80 local government non-market production (funded mainly by rates) contributed only 1.1% of Gross Domestic Product, and production by private non-profit organisations (funded by voluntary contributions) made up less than 1% of Gross Domestic Product.

Central Government's role as a producer is not limited to non-market production. In New Zealand a large number of government owned or controlled agencies sell goods and services to consumers at prices which cover most of their costs of production. The products they market include postal, telephone, radio and television services; tourist and hotel services; transport by air, sea, rail and bus; forest products; trade publications, a weekly magazine and printing services; gas, oil and electricity; construction and housing; life insurance and banking services<sup>16</sup>. In 1979/80 the output of such public enterprises totalled \$2,101 million, or just over 10% of Gross Domestic Product.

In addition to documenting the current situation, Table 3 reveals some interesting trends in the nature of production in New Zealand over the last two decades. There is a clear secular trend of growth in the relative importance of non-market output, particularly that of Central Government. Its share of output has almost doubled, from 5.9% of GDP in 1959/60 to 10.9% in 1979/80.

Care needs be taken in interpreting this time-trend, for a variety of contributing factors may be involved. First, we must recognise that changes in the share of production by government reflect changes in both the numerator (value of government's non market production) and the denominator (value of total GDP). A variety of combinations of changes in numerator and denominator could produce the same change in the share of output. The relevant changes are shown by the bottom row of Table 3a. This row shows that growth in the value of government non-market output (at an average annual rate of 14.4%) exceeded that in the major sub component of GDP, private market output (which

---

<sup>16</sup> As shown in Appendix 1, of the 21 NZSNA market production sectors, government is a producer in 14.



grew at an annual rate of 10.4%), and hence exceeded the rate of growth of nominal GDP (of 10.9% per year), over the 20 year period.

Faster growth in the nominal value of non-market output does not, however, necessarily reflect proportionate increases in the volume of output. Statistics Department estimates indicate that in several recent years there has been no real growth in the total volume of production in New Zealand (see Table 3a, Column 10). Unfortunately derivation of a full sector by sector breakdown of real production is not yet feasible with existing data sources. Hence we cannot unequivocally establish the relative importance of price and quantity factors in the growing share of public non-market services by value in GDP. Some clues to their importance do however exist.

One explanation for the growing nominal share of government expenditure in GDP, so characteristic of many mixed market economies in the 1960s and 70s, is that public services experienced an "adverse relative price effect" - that is, there was a tendency for the unit costs of public services to rise more than unit costs in the economy as a whole. This was considered to be due to either lagging productivity in public services, or relatively higher labour costs. To test this hypothesis in the New Zealand context, Bevin<sup>17</sup>, investigated six major New Zealand public services - railways, electricity generation, post-office, police, hospitals and education services. He found that New Zealand public services have experienced rising costs in the last 30 years, particularly health and education services (which accounts for 60% of government non-market production in 1979/80). His work suggested that more than half of the relative growth in non-transfer expenditures by government in the last 30 years could be attributed to the adverse relative price effect. He concluded that "The major factor underlying the adverse relative price effect in New Zealand is increased labour inputs in relation to the volume of services provided. The use of relatively more expensive labour is a significant, but much less important, contributor to the public sector's increasing cost disadvantage".

Bevin did not however intend that this general conclusion apply to each type of public sector production studied. The conclusion refers principally to the non-market services of police, hospitals and education. He found that both energy and post office (market output) enjoyed increases in productivity and a favourable relative price effect - that is, their output prices rose at a slower rate than their input prices and the rate of increase in price for GDP in general. Railways did show lagged productivity and an adverse relative price effect.

This type of cost disadvantage was not unique; it was felt by all producers with relatively labour intensive production processes. The recent collapse of Mosgiel Woollen Mills illustrates this. During the period covered by Bevin's study, wage rates rose faster on average than import prices or intermediate input prices. So the more labour intensive the production process, the greater was the increase in unit production cost for any producer. For the public sector the increase was particularly adverse relative of the private sector as a whole because services are inherently labour intensive.

---

17 Paul Bevin The Rising Cost of Public Services (Victoria University of Wellington: unpublished Master of Public Policy Thesis, February 1981)

To some extent, however, Bevin's results fail to reflect a change in the nature and quality of Government services, not only or necessarily a lag in productivity growth or rising unit production cost.

For example, Bevin, in his analysis of hospital services, used hospital bed days as a proxy for output, which would not reflect the increasing complexity of treatment available in New Zealand hospitals. Examples include coronary by-pass surgery, bone marrow transplant, and organ-imaging diagnostic services which were either unknown or very uncommon in 1960. Over and above changes in existing services, government has also implemented a variety of entirely new programmes. The health service again readily provides examples, such as the establishment of the practice nurse scheme in 1970 whereby government paid 50% of the salary of nurses employed by general practitioners in rural areas, and creation of occupational health teams in 1978 to investigate industrial health problems.

All this suggests that some growth in services available to the public has undoubtedly occurred since 1960, but that the growth in the nominal share of government's non-market production as a proportion of total production (Table 3a, column 1) overstates the growth in the volume of those services since 1960.

Production of public services is, however, but one perspective from which the extent of public sector involvement in the New Zealand economy can be viewed. It excludes a second major aspect of government activity, namely the provision of incomes.

TABLE 3a CONTRIBUTION TO GROSS DOMESTIC PRODUCT BY PRODUCTION GROUPS (\$M)

| Year    | Non-Market Sector  |                  |                             |                  | Market Sector      |                  |         | Domestic Product |                |                           |
|---------|--------------------|------------------|-----------------------------|------------------|--------------------|------------------|---------|------------------|----------------|---------------------------|
|         | Central Government | Local Government | Private Non-Profit Services | Total Non-Market | Central Government | Local Government | Private | Total Market     | Current Prices | At Constant 1976/7 prices |
|         | (1)                | (2)              | (3)                         | (4)              | (5)                | (6)              | (7)     | (8)              | (9)            | (10)                      |
| 1959/60 | 153                | 21               | 14                          | 187              | 224                | 63               | 2,132   | 2,418            | 2,606          | ..                        |
| 1960/61 | 170                | 22               | 15                          | 207              | 227                | 68               | 2,311   | 2,605            | 2,813          | ..                        |
| 1961/62 | 186                | 23               | 16                          | 224              | 246                | 69               | 2,333   | 2,648            | 2,872          | 7,696                     |
| 1962/63 | 204                | 26               | 18                          | 247              | 272                | 75               | 2,520   | 2,867            | 3,114          | 8,072                     |
| 1963/64 | 223                | 26               | 20                          | 269              | 269                | 81               | 2,778   | 3,128            | 3,396          | 8,489                     |
| 1964/65 | 250                | 29               | 22                          | 301              | 306                | 87               | 3,027   | 3,420            | 3,721          | 8,908                     |
| 1965/66 | 301                | 31               | 25                          | 356              | 335                | 93               | 3,228   | 3,656            | 4,012          | 9,266                     |
| 1966/67 | 333                | 33               | 28                          | 395              | 362                | 104              | 3,329   | 3,795            | 4,190          | 9,586                     |
| 1967/68 | 338                | 35               | 29                          | 403              | 395                | 113              | 3,464   | 3,972            | 4,375          | 9,526                     |
| 1968/69 | 367                | 37               | 32                          | 436              | 422                | 123              | 3,659   | 4,205            | 4,642          | 9,655                     |
| 1969/70 | 413                | 39               | 35                          | 487              | 455                | 131              | 4,060   | 4,646            | 5,133          | 10,426                    |
| 1970/71 | 511                | 47               | 42                          | 600              | 507                | 144              | 4,579   | 5,231            | 5,831          | 10,628                    |
| 1971/72 | 617                | 64               | 52                          | 733              | 573                | 155              | 5,317   | 6,043            | 6,776          | 11,088                    |
| 1972/73 | 691                | 75               | 63                          | 829              | 662                | 169              | 6,129   | 6,960            | 7,789          | 11,573                    |
| 1973/74 | 825                | 85               | 71                          | 981              | 738                | 185              | 7,089   | 8,012            | 8,993          | 12,273                    |
| 1974/75 | 980                | 103              | 83                          | 1,166            | 766                | 205              | 7,730   | 8,701            | 9,867          | 13,060                    |
| 1975/76 | 1,174              | 127              | 97                          | 1,398            | 863                | 235              | 8,844   | 9,942            | 11,340         | 13,006                    |
| 1976/77 | 1,324              | 122              | 115                         | 1,561            | 1,180              | 296              | 10,582  | 12,058           | 13,619         | 12,269                    |
| 1977/78 | 1,571              | 144              | 132                         | 1,847            | 1,421              | 368              | 11,410  | 13,199           | 15,045         | 12,696                    |
| 1978/79 | 1,943              | 186              | 157                         | 2,286            | 1,684              | 399              | 12,947  | 15,030           | 17,316         | 12,810                    |
| 1979/80 | 2,244              | 229              | 178                         | 2,651            | 2,101              | 533              | 15,383  | 18,017           | 20,668         | 12,619                    |

|  |       |       |       |       |      |      |      |      |      |      |
|--|-------|-------|-------|-------|------|------|------|------|------|------|
| Ratio of total growth from 1959/60 to 1979/80* | 14.67 | 10.90 | 12.71 | 14.18 | 9.38 | 8.46 | 7.22 | 7.45 | 7.93 | 1.64 |
|--|-------|-------|-------|-------|------|------|------|------|------|------|

|                                     |       |       |       |       |       |       |       |       |       |      |
|-------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|
| Average Annual % Change 59/60-79/80 | 14.37 | 12.69 | 13.56 | 14.18 | 11.84 | 11.27 | 10.39 | 10.56 | 10.91 | 2.64 |
|-------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|

Note\*: This ratio should be read as follows: by 1979/80 Central Government non-market sector output had grown to 14.67 times its 1959/60 value

1 - Figures may not add due to rounding.

Column 9 Domestic Product as here used is not strictly Gross Domestic Product, since the data do not include import duties and some other minor indirect bases, which could not be allocated among sectors.

Sources: Years 1959/60 - 1970/71 - derived from Reserve Bank Research paper No. 32 and data memos, from 1970/71 to 1979/80, from Monthly Abstract of Statistics, May 1981, Appendix II New Zealand System of National Accounts 1971/2 to 1979/80.

TABLE 3b

## CONTRIBUTION TO GROSS DOMESTIC PRODUCT BY PRODUCTION GROUPS (PERCENTAGES)

| Year    | Non-Market Sector  |                  |                             |                  | Market Sector      |                  |         |              | Central and Local Government (Summary) |                    |                  |                  |
|---------|--------------------|------------------|-----------------------------|------------------|--------------------|------------------|---------|--------------|--|--------------------|------------------|------------------|
|         | Central Government | Local Government | Private Non-Profit Services | Total Non-Market | Central Government | Local Government | Private | Total Market | Total G.D.P.                           | Central Government | Local Government | Total Government |
|         | (1)                | (2)              | (3)                         | (4)              | (5)                | (6)              | (7)     | (8)          | (9)                                    | (10)               | (11)             | (12)             |
| 1959/60 | 5.87               | 0.81             | 0.52                        | 7.19             | 8.59               | 2.42             | 81.80   | 92.81        | 100.00                                 | 14.46              | 3.23             | 17.69            |
| 1960/61 | 6.05               | 0.79             | 0.53                        | 7.37             | 8.06               | 2.41             | 82.16   | 92.63        | 100.00                                 | 14.11              | 3.20             | 17.31            |
| 1961/62 | 6.47               | 0.79             | 0.55                        | 7.81             | 8.55               | 2.41             | 81.23   | 92.19        | 100.00                                 | 15.02              | 3.20             | 18.22            |
| 1962/63 | 6.54               | 0.82             | 0.59                        | 7.94             | 8.73               | 2.40             | 80.92   | 92.06        | 100.00                                 | 15.27              | 3.22             | 18.49            |
| 1963/64 | 6.56               | 0.77             | 0.58                        | 7.91             | 7.92               | 2.39             | 81.78   | 92.09        | 100.00                                 | 14.48              | 3.16             | 17.64            |
| 1964/65 | 6.72               | 0.78             | 0.58                        | 8.08             | 8.24               | 2.33             | 81.36   | 91.92        | 100.00                                 | 14.96              | 3.11             | 18.07            |
| 1965/66 | 7.50               | 0.76             | 0.62                        | 8.89             | 8.35               | 2.32             | 80.45   | 91.11        | 100.00                                 | 15.85              | 3.08             | 18.93            |
| 1966/67 | 7.96               | 0.79             | 0.68                        | 9.42             | 8.64               | 2.48             | 79.45   | 90.57        | 100.00                                 | 16.60              | 3.27             | 19.87            |
| 1967/68 | 7.73               | 0.81             | 0.66                        | 9.20             | 9.03               | 2.80             | 79.17   | 90.80        | 100.00                                 | 16.76              | 3.61             | 20.37            |
| 1968/69 | 7.92               | 0.80             | 0.69                        | 9.41             | 9.10               | 2.66             | 78.83   | 90.59        | 100.00                                 | 17.02              | 3.46             | 20.48            |
| 1969/70 | 8.04               | 0.77             | 0.68                        | 9.49             | 8.87               | 2.55             | 79.09   | 90.51        | 100.00                                 | 16.91              | 3.32             | 20.23            |
| 1970/71 | 8.77               | 0.80             | 0.72                        | 10.29            | 8.70               | 2.47             | 78.54   | 89.71        | 100.00                                 | 17.47              | 3.27             | 20.74            |
| 1971/72 | 9.11               | 0.94             | 0.77                        | 10.82            | 8.46               | 2.29             | 78.44   | 89.18        | 100.00                                 | 17.57              | 3.23             | 20.68            |
| 1972/73 | 8.87               | 0.96             | 0.81                        | 10.64            | 8.50               | 2.17             | 78.69   | 89.37        | 100.00                                 | 17.37              | 3.13             | 20.50            |
| 1973/74 | 9.17               | 0.95             | 0.79                        | 10.91            | 8.21               | 2.06             | 78.83   | 89.09        | 100.00                                 | 17.38              | 3.01             | 20.39            |
| 1974/75 | 9.93               | 1.64             | 0.84                        | 11.82            | 7.76               | 2.08             | 78.34   | 88.18        | 100.00                                 | 17.69              | 3.72             | 21.41            |
| 1975/76 | 10.35              | 1.11             | 0.86                        | 12.33            | 7.61               | 2.07             | 77.99   | 87.67        | 100.00                                 | 17.96              | 3.18             | 21.14            |
| 1976/77 | 9.72               | 0.90             | 0.84                        | 11.46            | 8.66               | 2.17             | 77.70   | 88.54        | 100.00                                 | 18.38              | 3.07             | 21.45            |
| 1977/78 | 10.44              | 0.96             | 0.88                        | 12.28            | 9.44               | 2.45             | 75.84   | 87.73        | 100.00                                 | 19.88              | 3.41             | 23.29            |
| 1978/79 | 11.22              | 1.07             | 0.91                        | 13.20            | 9.73               | 2.30             | 74.77   | 86.80        | 100.00                                 | 20.95              | 3.37             | 24.32            |
| 1979/80 | 10.86              | 1.11             | 0.86                        | 12.83            | 10.17              | 2.58             | 74.43   | 87.17        | 100.00                                 | 21.03              | 3.69             | 24.72            |

Source: Table 3a.



## SECTION 4

GOVERNMENT AS PROVIDER OF HOUSEHOLD INCOMES

4.

While production data show the role of each sector in producing the aggregate supply of goods and services, household income data reveal how the incomes so produced are distributed. Incomes received from market sector organisations are simply payments to households which provided inputs (land, labour, capital or entrepreneurial talents) for market production. However household incomes derived from non-market sector organisations only partly reflect such factor payments. Central Government also uses its tax income to provide incomes to non-workers (in the form of unemployment benefits, disability benefits, etc.) and to members of the community generally in respect of characteristics unrelated to their work status (for example family benefit, national superannuation). To the extent that incomes from production are redistributed in this way, the production and income views will give different indications of the relative importance of Central Government in the economy.

Table 4a documents the distribution of household incomes, by sector of origin, for the period 1959/60 to 1979/80. Clearly the role of government as a provider of non-market incomes is considerably more extensive than its role as a producer of non-market goods and services - 27% of total household incomes in 1979/80 came from this source. Like non-market production, total non-market income provided by Central Government has exhibited definite secular growth, as a share of household incomes. However the timing of this growth differs. Growth in non-market production was relatively evenly spread over the two decades, whereas Table 4a Column 1 shows that incomes from Central Government's non-market agencies grew on average by 11% per annum between 1959/60 and 1973/74, in contrast to an annual average growth rate of 20% for the period 1974/75 to 1979/80. Some insight into the factors contributing to this difference is given by disaggregating the Central Government non-market contribution to incomes and examining the behaviour of its four components: compensation of Central Government's employees (who produce non-market output), monetary benefits, interest on public debt paid to New Zealand households, and subsidies<sup>18</sup> - as is done in Table 4c.

This shows that up until 1974/75 growth in the share of household incomes from the central government non-market sector was almost entirely due to increases in total compensation of employees. (See Column 1). The other forms of income from the Central Government non-market sector, in contrast, were tending to fall as a proportion of total pre-tax household incomes (Table 4d, Columns 2, 3, 4). Again there are both price and quantity

---

18 Subsidies are included here on the grounds that their payment to market producers by government means goods are sold for prices lower than would be charged without them and that ultimately some of the factor payments to households involved in market production are effectively provided by central government, non-market organisations (i.e., are tax-funded). Conceptually "tax expenditures" of government (like export incentives) should be treated in the same way. However due to lack of data on their extent, it has not been possible to incorporate them for the whole period covered in Table 3a.

components in these movements. The 1960s and early 1970s were characterised by a steady proportion of the labour force in the public non-market sector (see Table 2b). In 1974 the proportion rose by about one percent, holding more or less stable at that higher figure for the rest of the 1970s.

In the same period wages in the public service were rising more rapidly than in the economy as a whole, partly influenced by the advent of equal pay for women, who make up a high proportion of employees in government services particularly health and education. The acceleration in the relative rate of growth of the proportion of incomes from the public non-market sector after 1974/75 was primarily due to changes in the extent of monetary benefits, which as Column 3 of Table 4d shows, experienced a 37% increase between 1974/75 and 1979/80, growing from 8.8% to 12.0% of total household incomes. This changed pattern is the result of policy changes since 1974/75. The imposition of a "sinking lid" on the numbers employed in the public sector has removed the volume component from increases in income earned in the non-market sector. Simultaneously the establishment of the National Superannuation Scheme has accounted for almost all of the substantial growth in incomes from social benefits. While the previous system of Age Benefits accounted for only 3.9% of pre-tax total household incomes in 1971/72, (constituting some 54% of the total value of benefits paid), in 1979/80 National Superannuation alone accounted for 7.7% of total household incomes, and 64% of total monetary benefits paid by the New Zealand Government. Other growth factors in benefits were miniscule in comparison. For example unemployment benefits which accounted for 0.8% of monetary benefits and 0.1% of household incomes in 1971/72 had increased to 3% of monetary benefits and 0.4% of household incomes in 1979/80.

It must be remembered that these changes within the non-market sector coincided with external forces causing reductions in private market sector incomes. The reduced production associated with the economic downturn of the mid 1970s restricted employment and overtime in the market sector, and consequently relatively less income for salary and wage-earners in that sector, and less profit for employers and the self-employed, particularly farmers and tradesmen associated with the building industry. Market and non-market sector movements together produced the changing pattern of sources of incomes shown in Tables 4a and 4c.



TABLE 4a

## CONTRIBUTION TO HOUSEHOLD INCOMES BEFORE TAX (\$M)

| Year                             | Non-Market Sector   |                   |                             |                  | Market Sector       |                   |         |              | Total House hold Income | C.P.I. (base Dec quarter 1977) |
|----------------------------------|---------------------|-------------------|-----------------------------|------------------|---------------------|-------------------|---------|--------------|-------------------------|--------------------------------|
|                                  | Central Govern-ment | Local Govern-ment | Private Non-Profit Services | Total Non-Market | Central Govern-ment | Local Govern-ment | Private | Total Market |                         |                                |
|                                  | (1)                 | (2)               | (3)                         | (4)              | (5)                 | (6)               | (7)     | (8)          | (9)                     | (10)                           |
| 1959/60                          | 387                 | 29                | 12                          | 428              | 150                 | 33                | 1,412   | 1,594        | 2,022                   |                                |
| 1960/61                          | 422                 | 30                | 13                          | 465              | 150                 | 35                | 1,522   | 1,707        | 2,172                   | ..                             |
| 1961/62                          | 442                 | 32                | 14                          | 487              | 157                 | 36                | 1,527   | 1,720        | 2,207                   | 311                            |
| 1962/63                          | 462                 | 35                | 15                          | 511              | 167                 | 46                | 1,657   | 1,864        | 2,375                   | 312                            |
| 1963/64                          | 494                 | 36                | 17                          | 547              | 174                 | 43                | 1,820   | 2,037        | 2,584                   | 318                            |
| 1964/65                          | 495                 | 38                | 19                          | 588              | 188                 | 46                | 1,962   | 2,197        | 2,794                   | 337                            |
| 1965/66                          | 595                 | 40                | 22                          | 657              | 208                 | 50                | 2,085   | 2,342        | 2,999                   | 346                            |
| 1966/67                          | 637                 | 42                | 24                          | 704              | 228                 | 53                | 2,122   | 2,403        | 3,106                   | 353                            |
| 1967/68                          | 649                 | 44                | 25                          | 718              | 236                 | 56                | 2,222   | 2,514        | 3,232                   | 378                            |
| 1968/69                          | 679                 | 46                | 27                          | 752              | 244                 | 59                | 2,299   | 2,602        | 3,354                   | 390                            |
| 1969/70                          | 755                 | 48                | 30                          | 834              | 272                 | 64                | 2,534   | 2,870        | 3,704                   | 409                            |
| 1970/71                          | 913                 | 55                | 37                          | 1,005            | 334                 | 76                | 2,890   | 3,300        | 4,305                   | 436                            |
| 1971/72                          | 1,108               | 71                | 45                          | 1,224            | 391                 | 92                | 3,452   | 3,935        | 5,159                   | 475                            |
| 1972/73                          | 1,324               | 80                | 54                          | 1,458            | 451                 | 105               | 4,046   | 4,602        | 6,060                   | 498                            |
| 1973/74                          | 1,600               | 91                | 61                          | 1,751            | 516                 | 118               | 4,701   | 5,335        | 7,086                   | 554                            |
| 1974/75                          | 1,912               | 108               | 72                          | 2,092            | 634                 | 139               | 5,025   | 5,797        | 7,889                   | 618                            |
| 1975/76                          | 2,425               | 130               | 85                          | 2,639            | 756                 | 166               | 5,706   | 6,629        | 9,268                   | 683                            |
| 1976/77                          | 2,622               | 124               | 99                          | 2,844            | 830                 | 181               | 6,853   | 7,853        | 10,695                  | 810                            |
| 1977/78                          | 3,309               | 147               | 112                         | 3,568            | 988                 | 212               | 7,449   | 8,649        | 12,217                  | 948                            |
| 1978/79                          | 4,160               | 188               | 136                         | 4,484            | 1,196               | 258               | 8,470   | 9,924        | 14,408                  | 1,049                          |
| 1979/80                          | 4,699               | 232               | 156                         | 5,087            | 1,394               | 297               | 10,489  | 8,469        | 17,267                  | 1,192                          |
| Ratios of End Year to base Year  | 12.14               | 8.00              | 13.00                       | 11.88            | 9.29                | 9.00              | 7.43    | 5.31         | 8.54                    | 3.83                           |
| Ave. Annual % Growth 59/60-79/80 | 13.3                | 10.96             | 13.68                       | 13.18            | 11.79               | 11.61             | 10.55   | 8.71         | 11.32                   | 7.75                           |

Source: As per table 3a

TABLE 4b

INCOMES - SHARES

## CONTRIBUTION TO HOUSEHOLD INCOMES BEFORE TAX (PERCENTAGES)

| Year    | Non-Market Sector          |                          |                                       |                         | Market Sector              |                          |         |                 | Total<br>House-<br>hold<br>Income | Central and Local<br>Government (Summary) |                          |  |
|---------|----------------------------|--------------------------|---------------------------------------|-------------------------|----------------------------|--------------------------|---------|-----------------|-----------------------------------|---|--------------------------|--|
|         | Central<br>Govern-<br>ment | Local<br>Govern-<br>ment | Private<br>Non-<br>Profit<br>Services | Total<br>Non-<br>Market | Central<br>Govern-<br>ment | Local<br>Govern-<br>ment | Private | Total<br>Market |                                   | Central<br>Govern-<br>ment                | Local<br>Govern-<br>ment | Total<br>Central<br>and<br>Local<br>Govern-<br>ments |
|         | (1)                        | (2)                      | (3)                                   | (4)                     | (5)                        | (6)                      | (7)     | (8)             | (9)                               | (10)                                      | (11)                     | (12)   |
| 1959/60 | 19.14                      | 1.44                     | 0.57                                  | 21.15                   | 7.41                       | 1.63                     | 69.81   | 78.85           | 100.00                            | 26.55                                     | 3.07                     | 29.62  |
| 1960/61 | 19.43                      | 1.39                     | 0.59                                  | 21.41                   | 6.88                       | 1.61                     | 70.10   | 78.59           | 100.00                            | 26.31                                     | 3.00                     | 29.31  |
| 1961/62 | 20.02                      | 1.44                     | 0.63                                  | 22.08                   | 7.10                       | 1.63                     | 69.19   | 77.92           | 100.00                            | 27.12                                     | 3.07                     | 30.19  |
| 1962/63 | 19.41                      | 1.46                     | 0.64                                  | 21.51                   | 7.03                       | 1.63                     | 69.77   | 78.48           | 100.00                            | 26.44                                     | 3.14                     | 29.58  |
| 1963/64 | 19.14                      | 1.40                     | 0.64                                  | 21.17                   | 6.72                       | 1.66                     | 70.45   | 78.83           | 100.00                            | 25.86                                     | 3.06                     | 28.92  |
| 1964/65 | 19.07                      | 1.36                     | 0.67                                  | 21.08                   | 6.77                       | 1.65                     | 70.49   | 78.91           | 100.00                            | 25.84                                     | 3.01                     | 28.85  |
| 1965/66 | 19.84                      | 1.32                     | 0.73                                  | 21.0 <sup>s</sup>       | 6.92                       | 1.67                     | 69.51   | 78.10           | 100.00                            | 26.76                                     | 2.99                     | 29.75  |
| 1966/67 | 20.52                      | 1.36                     | 0.78                                  | 22.66                   | 7.35                       | 1.71                     | 68.29   | 77.35           | 100.00                            | 27.87                                     | 3.07                     | 30.94  |
| 1967/68 | 20.08                      | 1.37                     | 0.77                                  | 22.23                   | 7.30                       | 1.73                     | 68.74   | 77.77           | 100.00                            | 27.38                                     | 3.10                     | 30.48  |
| 1968/69 | 20.25                      | 1.37                     | 0.80                                  | 22.42                   | 7.28                       | 1.76                     | 68.55   | 77.59           | 100.00                            | 27.53                                     | 3.13                     | 30.66  |
| 1969/70 | 20.39                      | 1.30                     | 0.81                                  | 22.51                   | 7.34                       | 1.73                     | 68.42   | 77.49           | 100.00                            | 27.73                                     | 3.03                     | 30.76  |
| 1970/71 | 21.20                      | 1.28                     | 0.86                                  | 23.34                   | 7.76                       | 1.77                     | 67.14   | 76.66           | 100.00                            | 28.96                                     | 3.05                     | 32.01  |
| 1971/72 | 21.49                      | 1.37                     | 0.87                                  | 23.72                   | 7.57                       | 1.78                     | 66.92   | 76.28           | 100.00                            | 29.06                                     | 3.15                     | 32.21  |
| 1972/73 | 21.85                      | 1.33                     | 0.89                                  | 24.06                   | 7.44                       | 1.73                     | 66.76   | 75.94           | 100.00                            | 29.29                                     | 3.06                     | 32.35  |
| 1973/74 | 22.57                      | 1.28                     | 0.86                                  | 24.72                   | 7.28                       | 1.67                     | 66.34   | 75.29           | 100.00                            | 29.85                                     | 2.95                     | 32.80  |
| 1974/75 | 24.23                      | 1.37                     | 0.91                                  | 26.51                   | 8.03                       | 1.76                     | 63.69   | 73.48           | 100.00                            | 32.26                                     | 3.13                     | 35.39  |
| 1975/76 | 26.16                      | 1.39                     | 0.92                                  | 28.48                   | 8.16                       | 1.79                     | 61.57   | 71.52           | 100.00                            | 34.32                                     | 3.18                     | 37.50  |
| 1976/77 | 24.51                      | 1.16                     | 0.93                                  | 26.60                   | 7.76                       | 1.69                     | 63.97   | 73.42           | 100.00                            | 32.27                                     | 2.85                     | 35.12  |
| 1977/78 | 27.09                      | 1.20                     | 0.92                                  | 29.20                   | 8.09                       | 1.74                     | 60.97   | 70.80           | 100.00                            | 35.18                                     | 2.94                     | 38.12  |
| 1978/79 | 28.87                      | 1.30                     | 0.94                                  | 31.12                   | 8.30                       | 1.79                     | 58.79   | 68.88           | 100.00                            | 37.17                                     | 3.09                     | 40.26  |
| 1979/80 | 27.21                      | 1.34                     | 0.90                                  | 29.46                   | 8.07                       | 1.72                     | 60.75   | 70.54           | 100.00                            | 35.28                                     | 3.06                     | 38.34  |

Source: Table 4a.

TABLE 4c

## PUBLIC NON-MARKET SECTOR CONTRIBUTION TO HOUSEHOLD INCOMES BEFORE TAX (\$M)

| Year    | Central Government<br>(Non-Market) |                              |                      |           | Local Government<br>(Non-Market) |                              |                  |                              |  |
|---------|------------------------------------|------------------------------|----------------------|-----------|----------------------------------|------------------------------|------------------|------------------------------|--|
|         | Compensation<br>of Employees       | Internal<br>Debt<br>Interest | Monetary<br>Benefits | Subsidies | Total<br>Central<br>Government   | Compensation<br>of Employees | Debt<br>Interest | Total<br>Local<br>Government | Total<br>Local<br>and<br>Central<br>Government |
|         | (1)                                | (2)                          | (3)                  | (4)       | (5)                              | (6)                          | (7)              | (8)                          | (9)  |
| 1959/60 | 153                                | 6                            | 202                  | 26        | 387                              | 21                           | 8                | 29                           | 416  |
| 1960/61 | 170                                | 6                            | 214                  | 32        | 422                              | 22                           | 8                | 30                           | 452  |
| 1961/62 | 186                                | 7                            | 220                  | 29        | 442                              | 23                           | 9                | 32                           | 474  |
| 1962/63 | 204                                | 7                            | 221                  | 30        | 462                              | 26                           | 9                | 35                           | 497  |
| 1963/64 | 223                                | 8                            | 233                  | 30        | 494                              | 26                           | 10               | 36                           | 530  |
| 1964/65 | 250                                | 7                            | 238                  | 36        | 531                              | 29                           | 9                | 38                           | 569  |
| 1965/66 | 301                                | 7                            | 248                  | 39        | 595                              | 31                           | 9                | 40                           | 635  |
| 1966/67 | 332                                | 7                            | 258                  | 40        | 637                              | 33                           | 9                | 42                           | 679  |
| 1967/68 | 337                                | 7                            | 284                  | 21        | 649                              | 35                           | 9                | 44                           | 693  |
| 1968/69 | 367                                | 7                            | 285                  | 20        | 679                              | 37                           | 9                | 46                           | 725  |
| 1969/70 | 412                                | 7                            | 309                  | 27        | 755                              | 39                           | 9                | 48                           | 803  |
| 1970/71 | 510                                | 6                            | 338                  | 59        | 913                              | 47                           | 8                | 55                           | 968  |
| 1971/72 | 615                                | 6                            | 378                  | 109       | 1,108                            | 63                           | 8                | 71                           | 1,179  |
| 1972/73 | 689                                | 5                            | 501                  | 129       | 1,324                            | 73                           | 7                | 80                           | 1,404  |
| 1973/74 | 824                                | 4                            | 609                  | 163       | 1,600                            | 84                           | 7                | 91                           | 1,691  |
| 1974/75 | 978                                | 4                            | 692                  | 238       | 1,912                            | 101                          | 7                | 108                          | 2,020  |
| 1975/76 | 1,172                              | 3                            | 859                  | 391       | 2,425                            | 125                          | 5                | 130                          | 2,555  |
| 1976/77 | 1,321                              | 3                            | 1,057                | 241       | 2,622                            | 120                          | 4                | 124                          | 2,746  |
| 1977/78 | 1,566                              | 3                            | 1,463                | 277       | 3,309                            | 142                          | 5                | 147                          | 3,456  |
| 1978/79 | 1,938                              | 13                           | 1,767                | 424       | 4,160                            | 183                          | 5                | 188                          | 4,348  |
| 1979/80 | 2,236                              | 40                           | 2,072                | 351       | 4,699                            | 226                          | 6                | 232                          | 4,931  |

Source: Diane Salter: An assessment of non-market sector growth in N.Z. and its effect on the economy (University of Waikato; unpublished Master of Social Science Thesis, 1979) and "Market and non-market sector aggregates on an SNA basis, 1960-1980" unpublished data memorandum made available to the Planning Council.

TABLE 4d

INCOMES - SHARES (in percentages) - Non-Market Sector

| Year    | Central Government<br>(Non-Market) |                              |                      |           | Local Government<br>(Non-Market)    |                              |                  |                                   |   |
|---------|------------------------------------|------------------------------|----------------------|-----------|-------------------------------------|------------------------------|------------------|-----------------------------------|---|
|         | Compensation<br>of Employees       | Internal<br>Debt<br>Interest | Monetary<br>Benefits | Subsidies | Total<br>Central<br>Govern-<br>ment | Compensation<br>of Employees | Debt<br>Interest | Total<br>Local<br>Govern-<br>ment | Total<br>Central<br>and<br>Local<br>Govern-<br>ment |
|         | (1)                                | (2)                          | (3)                  | (4)       | (5)                                 | (6)                          | (7)              | (8)                               | (9)   |
| 1959/60 | 7.56                               | 0.29                         | 9.99                 | 1.30      | 19.14                               | 1.04                         | 0.40             | 1.44                              | 20.58   |
| 1960/61 | 7.84                               | 0.28                         | 9.85                 | 1.46      | 19.43                               | 1.02                         | 0.37             | 1.39                              | 20.82   |
| 1961/62 | 8.42                               | 0.32                         | 9.97                 | 1.31      | 20.02                               | 1.03                         | 0.41             | 1.44                              | 21.46   |
| 1962/63 | 8.57                               | 0.29                         | 9.31                 | 1.24      | 19.41                               | 1.08                         | 0.38             | 1.46                              | 20.87   |
| 1963/64 | 8.63                               | 0.31                         | 9.02                 | 1.18      | 19.14                               | 1.01                         | 0.39             | 1.40                              | 20.54   |
| 1964/65 | 8.99                               | 0.25                         | 8.55                 | 1.28      | 19.07                               | 1.04                         | 0.32             | 1.36                              | 20.43   |
| 1965/66 | 10.03                              | 0.23                         | 8.27                 | 1.31      | 19.84                               | 1.02                         | 0.30             | 1.32                              | 21.16   |
| 1966/67 | 10.70                              | 0.23                         | 8.30                 | 1.29      | 20.52                               | 1.07                         | 0.29             | 1.36                              | 21.88   |
| 1967/68 | 10.43                              | 0.22                         | 8.79                 | 0.64      | 20.08                               | 1.09                         | 0.28             | 1.37                              | 21.45   |
| 1968/69 | 10.94                              | 0.21                         | 8.50                 | 0.60      | 20.25                               | 1.10                         | 0.27             | 1.37                              | 21.62   |
| 1969/70 | 11.12                              | 0.19                         | 8.34                 | 0.74      | 20.39                               | 1.06                         | 0.24             | 1.30                              | 21.69   |
| 1970/71 | 11.85                              | 0.14                         | 7.85                 | 1.36      | 21.20                               | 1.09                         | 0.19             | 1.28                              | 22.48   |
| 1971/72 | 11.93                              | 0.12                         | 7.33                 | 2.11      | 21.49                               | 1.21                         | 0.16             | 1.37                              | 22.86   |
| 1972/73 | 11.37                              | 0.08                         | 8.27                 | 2.13      | 21.85                               | 1.21                         | 0.12             | 1.33                              | 23.18   |
| 1973/74 | 11.62                              | 0.06                         | 8.59                 | 2.30      | 22.57                               | 1.18                         | 0.10             | 1.28                              | 23.85   |
| 1974/75 | 12.39                              | 0.05                         | 8.77                 | 3.02      | 24.23                               | 1.28                         | 0.09             | 1.37                              | 25.60   |
| 1975/76 | 12.64                              | 0.03                         | 9.27                 | 4.22      | 26.16                               | 1.34                         | 0.05             | 1.39                              | 27.55   |
| 1976/77 | 12.35                              | 0.03                         | 9.88                 | 2.25      | 24.51                               | 1.12                         | 0.04             | 1.16                              | 25.47   |
| 1977/78 | 12.82                              | 0.02                         | 11.98                | 2.27      | 27.09                               | 1.16                         | 0.04             | 1.20                              | 28.29   |
| 1978/79 | 13.45                              | 0.09                         | 12.26                | 3.07      | 28.87                               | 1.27                         | 0.03             | 1.30                              | 30.17   |
| 1979/80 | 12.95                              | 0.23                         | 12.00                | 2.03      | 27.21                               | 1.31                         | 0.03             | 1.34                              | 28.55   |

Source: Table 4c

## SECTION 5

5. COMPOSITION OF CENTRAL GOVERNMENT NON-MARKET EXPENDITURE

This section provides a more detailed examination of the pattern of Government's non-market expenditure, 1971/2 to 1980/1. Such expenditure is funded from the Public Account (as set out in Appendix 1). The concept of expenditure used here is also broadened to include tax expenditures.

Tax expenditure as here used refers only to exemptions, rebates and incentives. It does not therefore include any estimate for revenue foregone as a result of payments to employees of tax-free allowances etc., or concessional treatment of the income of trusts, superannuation schemes; or loss-write-offs, or by payments made in kind. The estimates are moreover rather more comprehensive for personal, than for corporate tax expenditure, because the data on these are more readily available. To help place the estimates used here in perspective, a brief discussion of the concept of personal tax expenditure together with a more comprehensive estimate of tax expenditures, drawn from the Task Force on Tax Reform (April 1982) report, is shown in Appendix 3 for 1981. In that year, the amount of tax expenditures recorded in Table 5 was some 75% of the Task Force's total; but the personal tax expenditure estimate was about equal to the Task Force total for that type.

The upper part of the Table 5 (Part I) shows the absolute value of expenditure and Part II shows the relative value of each general class of expenditure.

The following points emerge from study of this table:

- (i) The slow, but steady decline, within the non-market central government sector, of the proportion of expenditure which was in the market for goods and service, and the more or less stable proportion spent in the market for labour 1972 to 1980;
- (ii) The steadily higher share of expenditure, since 1975, on transfers of one kind or another - now some 58-60% of non-market expenditure is so spent. But within the relatively stable total share, tax expenditure (as here used) shows a declining trend since 1978; and
- (iii) The way in which government non-market output is valued for NZSNA purposes. It is valued as cost of value added in production; but since the product is not sold at a price, that value added is compensation to employees plus indirect taxes. Accordingly, Public Sector non-market expenditure on its direct contribution to Gross Domestic Product and that spent directly in the market of labour are more or less the same thing (see Part II 2 and 4).

A major implication of (ii) is that if we wish to look for the impact of government in the New Zealand economy - even within the traditional revenue-expenditure approach to fiscal policy - we should not be looking only at the size (relative or absolute) of its contribution to GDP, or aggregate expenditure, or its budget deficit. Its influence will also be through the 60 percent of its expenditure not directly spent by it in any organised market. This type of expenditure, probably more than any other, has an influence on conditions governing activity, on relative prices, on perceptions and subtleties of behaviour.

TABLE 5

## CENTRAL GOVERNMENT NON-MARKET PRODUCTION

GROUP EXPENDITURE<sup>1</sup> (\$m)

## YEAR ENDING MARCH

PART I

|  | 1972 | 1973 | 1974 | 1975 | 1976 | 1977 | 1978 | 1979 | 1980 | 1981 |
|--|------|------|------|------|------|------|------|------|------|------|
|  | (1)  | (2)  | (3)  | (4)  | (5)  | (6)  | (7)  | (8)  | (9)  | (10) |
| <u>EXPENDITURE ON</u>                        |      |      |      |      |      |      |      |      |      |      |
| (\$million)                                  |      |      |      |      |      |      |      |      |      |      |
| a) Intermediate Production                   | 220  | 251  | 267  | 340  | 416  | 494  | 628  | 727  | 806  | 1010 |
| b) Capital Formation                         | 133  | 180  | 174  | 223  | 284  | 284  | 309  | 338  | 335  | 380  |
| <u>Total in market<br/>for "goods" (a+b)</u> | 353  | 431  | 441  | 563  | 700  | 778  | 937  | 1065 | 1141 | 1390 |
| c) Compensation of Employees                 | 615  | 689  | 824  | 978  | 1172 | 1321 | 1566 | 1938 | 2236 | 2810 |
| d) Transfers                                 |      |      |      |      |      |      |      |      |      |      |
| i Current                                    | 678  | 839  | 991  | 1138 | 1402 | 1803 | 2404 | 2859 | 3599 | 4066 |
| ii Subsidies                                 | 107  | 121  | 166  | 236  | 384  | 221  | 261  | 410  | 342  | 335  |
| iii Financial                                | 92   | 89   | 65   | 258  | 347  | 245  | 327  | 372  | 377  | 505  |
| iv Tax "expenditure"                         | 336  | NA   | 335  | NA   | 603  | 645  | 828  | 775  | 714  | 850  |
| <u>Total Transfers</u>                       | 1213 |      | 1560 |      | 2736 | 2914 | 3820 | 4416 | 5032 | 5756 |
| <u>Total</u>                                 | 2181 |      | 2822 |      | 4608 | 5013 | 6323 | 7419 | 8409 | 9956 |
| <u>DIRECT CONTRIBUTION TO G.D.P.</u>         | 617  | 691  | 825  | 980  | 1174 | 1324 | 1571 | 1945 | 2244 | 2821 |



**PART II****PROPORTION OF TOTAL EXPENDITURE<sup>2</sup>**  
(in percentages)

|   | 1972 | 1974 | 1976 | 1977 | 1978 | 1979 | 1980 | 1981 |
|---|------|------|------|------|------|------|------|------|
| 1. Spent directly in market for goods ((a+b) above)                       | 16.2 | 15.6 | 15.2 | 15.5 | 14.8 | 14.4 | 13.6 | 13.9 |
| 2. Spent directly in market for labour (c) above)                         | 28.2 | 29.2 | 25.4 | 26.3 | 24.7 | 26.2 | 26.6 | 28.3 |
| 3. Given as Financial grant subsidy transfer or tax expenditure (d above) | 55.6 | 55.2 | 59.4 | 58.1 | 60.4 | 59.5 | 58.8 | 57.8 |
| 4. Spent on Direct contribution to G.D.P.                                 | 28.3 | 29.2 | 25.5 | 26.4 | 24.8 | 26.2 | 26.7 | 28.4 |
| 5. Spent as tax revenue forgone (d) iv above)                             | 15.4 | 11.8 | 13.1 | 12.8 | 13.1 | 10.5 | 8.5  | 8.6  |
| 6. Tax revenue forgone as percentage of explicit expenditure              | 18.4 | 13.4 | 15.1 | 14.8 | 15.0 | 11.7 | 9.3  | 9.5  |

**Notes:**

- 1 This is within Public Account (See Appendix 1) only; here taken as the government services of Central Administration, Defence, Education, Health, Social Welfare and Social Services (including those of research, advisory and regulatory establishments) and Trade and Industry.

Expenditure has been put on the same (non-market Public Account) basis throughout: it does not therefore include:

- public expenditure outside the public account - Post Office, Energy, Mines Division or Railways.
- public account expenditures associated with the unincorporated Government Trading Organisations such as N.Z. Forest Service, Land and Survey Farms, Tourist and Publicity.
- expenditures associated with Government owned and/or "controlled" corporations and companies, such as AIR N.Z., Broadcasting Corporation of New Zealand, Housing Corporation, Petroleum Corporation etc.,
- expenditure associated with the market production within government departments funded from consolidated account, such as the government printing office.
- Government non-market self-funded group expenditure, which in recent years was equivalent to about 2.0 percent of central government non-market contribution to GDP (see Table 7a).

- 2 In part II, the expenditure items of Part I are given slightly different titles to reflect the market in which the expenditure is made. Also only 1, 2 and 3 are additive: item 4, 5 and 6 are sub-sets of 1, 2 and 3

Sources: Derived from September 1981 Monthly Abstract of Statistics - Economic Analysis of Public account - and Reports on Income and Income Taxes and May 1981, National Accounts and table 6a.

## SECTION 6

6.

WHAT GOVERNMENT PROVIDES

The tables in this section are companion tables to Table 5. They show the provision of various types of goods and services (including transfers) by Central Government (both market and non-market, as defined in the NZSNA).

Here "provision" is used in a relatively broad sense, that is, in the sense of what government distributes or makes available. On this usage, government may provide more than it produces but not less than it finances. For instance, tax expenditures are neither production nor strictly speaking financial payments by government; they are nevertheless part of what government provides. In fact, through this means governments make provision for a number of things: among which are income maintenance, subsidies (export incentives, regional investment incentives), individual welfare (first home mortgage interest concession) and so on. In this respect, tax expenditures are similar to the more explicit transfer payments of government - they too make "provision", though they are not part of government production.

There is also a sense in which government's provision is greater than its expenditure. It may for instance be said that government makes provision for Health care - it establishes facilities, and sets down the conditions on which the service will be delivered to all who want to use it whether they do so or not. How large that potential usage or provision may be, is not known: all we can measure is the extent to which the potential was taken-up. As an approximation of this, we take what government spent on providing the service. Accordingly measurement and valuation of what is provided is here made in terms of actual financial flows plus the imputed flow for tax expenditure.

Here we treat government as providing three general classes of good or service: (i) non-market goods and services; (ii) transfer payments and (iii) marketable goods and services.

- (i) non-market goods and services (the output of NZSNA Production Group 22), has been subdivided as follows:
- Individual and Economic Welfare goods and services: these are Health, Education and Social Welfare services, and their associated research and administration.
  - Collective goods: these are the balance of Production Sector 22 output. They include the traditional public goods - such jointly consumed goods as Defence, Police and Lighthouse services. Some regulatory services are also included here, both in the form of general administration and specific government services to Industry, Farming, Labour, Transport and Construction sectors.
- (ii) Transfer payments are explicit and implicit monetary grants, including interest payments, tax expenditures and miscellaneous investments.
- (iii) Marketable goods or services; following the NZSNA usage, the output of government's market production group. This is principally the output of government trading enterprises (see Appendix 2), which produce goods and services for sale on the market at prices designed to cover production cost. But the group includes also output of government organisations

(such as the Government Printing Office) which, although producing similar goods and services to those sold on the market, exist mainly to serve government organisations.

A further note of caution should perhaps be introduced here. Ideally one would like to show the information on what government provides in constant price terms. But there are complications. A large part of what government provides is current and capital financial transfers - social assistance, tax expenditures, advances and capital grants. To apply any price index to such flows would be somewhat meaningless and arbitrary. For some other activities a constant price could more meaningfully be used; but unfortunately there are as yet no available price indices for government production by category as used here. Thus only nominal data can be shown in the following tables.

Those tables (set 6) point up the following:

- (i) the consistent relative provision of collective and individual and economic welfare goods (Table 6b);
- (ii) the steady level from 1976/77 in the relative provision of social assistance through transfer payment mechanisms (Table 6b);
- (iii) a relative decline in tax expenditure for persons and an increase for the business sector; and
- (iv) what seems to have been a decline in the relative provision of marketable goods between 1972 and 1976 and then an increase. This is somewhat misleading. The increase stems in part from a change in government's pricing policy for its trading organisations (particularly for Post Office, Energy). This move toward a "more market" based price is reflected also in the fall in subsidies between 1976 and 1981. Such changes are largely nominal rather than changes in the real value of the relative provision of marketable goods.

Possibly the most significant aspect of what these tables show is the consistently stable relative provision of Social Welfare. If the Social Welfare Programme is taken as the provision of Individual and Economic Welfare, Social Assistance and Personal tax expenditures, then there has been no significant change in the relative provision of Social Welfare over the 1970s (see Table 6c). The overall programme has been held to about 48 percent of Government's total provision.

But there has been a marked change in the composition of that programme. The relative share going to social assistance transfers has risen by 38 percent, while that for personal tax expenditures has fallen by 64 percent. The rise in explicit social assistance transfers is then a compositional change rather than a change in the overall size of government provision: it is a change in the distribution of government's social welfare transfers. What had (in the early 1970s) been done less overtly for a wide range of different individuals and classes of persons through tax expenditures has steadily given way to a more explicit, narrowly directed social welfare assistance - from the many toward the aged. Most of that increase stemmed from discretionary changes in the 1970's. The age and terms of New Zealand residence qualification of the pension and superannuation schemes were both lowered, and the rate of benefit was substantially raised.<sup>19</sup>

---

<sup>19</sup> New Zealand OECD: Economic Survey, 1982. pp.46-47.

TABLE 6a

PROVISION OF GOODS AND SERVICES BY CENTRAL GOVERNMENT

(\$m)

| CATEGORIES                         | Year Ending March |        |      |        |      |      |      |      |       |       |
|------------------------------------|-------------------|--------|------|--------|------|------|------|------|-------|-------|
|                                    | 1972              | 1973   | 1974 | 1975   | 1976 | 1977 | 1978 | 1979 | 1980  | 1981  |
|                                    | (1)               | (2)    | (3)  | (4)    | (5)  | (6)  | (7)  | (8)  | (9)   | (10)  |
| 1. Collective Goods                | 324               | 357    | 398  | 490    | 590  | 656  | 803  | 957  | 1119  | 1424  |
| 2. Individual and Economic Welfare | 509               | 582    | 687  | 818    | 983  | 1116 | 1338 | 1625 | 1846  | 2307  |
| 3. Transfers                       |                   |        |      |        |      |      |      |      |       |       |
| A) Current                         |                   |        |      |        |      |      |      |      |       |       |
| i Social Assistance                | 444               | 579    | 702  | 810    | 1008 | 1267 | 1745 | 2027 | 2508  | 2810  |
| ii Other                           | 49                | 56     | 68   | 85     | 104  | 122  | 145  | 181  | 258   | 297   |
| iii a. Subsidies                   | 107               | 121    | 166  | 236    | 384  | 221  | 261  | 410  | 342   | 335   |
| b. Interest concessions            | -                 | -      | -    | -      | -    | 22   | 32   | 38   | 43    | 54    |
| B) Debt Interest                   | 185               | 205    | 221  | 243    | 289  | 391  | 483  | 614  | 790   | 905   |
| C) Financial Transfers             |                   |        |      |        |      |      |      |      |       |       |
| 1) Misc. Investment                | 92                | 89     | 65   | 62     | 39   | 36   | 46   | 4    | 4     | 94    |
| 2) Misc. Finance                   | -                 | -      | -    | 197    | 308  | 209  | 281  | 368  | 372   | 411   |
| D) Tax Expenditure                 |                   |        |      |        |      |      |      |      |       |       |
| 1) Personal                        | 319               | -      | 280  | -      | 495  | 502  | 668  | 577  | 475   | 482   |
| 2) Business                        | 17                | n.a.   | 56   | n.a.   | 108  | 143  | 160  | 198  | 239   | 368   |
| 4. Marketable goods and services   | 573               | 662    | 738  | 766    | 863  | 1180 | 1421 | 1684 | 2101  | 2475  |
| <u>TOTAL</u>                       | 2619              | (2651) | 3381 | (3707) | 5171 | 5865 | 7383 | 8683 | 10097 | 11962 |

**Sources:**

The data shown were either obtained directly or derived from the following sources:

For categories 1, 2, 3A) 3B) and 4, the following Department of Statistics publications:

- Monthly Abstract of Statistics, May 1981, Appendix II:
- Monthly Abstract of Statistics, September 1981, Appendix II:
- Monthly Abstract of Statistics, February 1982, National Accounts Section

For category 3C): Budget Table 1.

For category 3D): Statistics Department - Statistics of Income and Income Tax; Report of TASK FORCE ON TAX REFORM, April, 1982; and an unpublished paper by Marilyn Goddard, "Taxation of Enterprises" presented at N.Z. Association of Economists Winter Conference, August, 1981. Information on Business Taxation was not available for 1973 and 1975. Accordingly, no estimate of tax expenditure was made for those years.

TABLE 6b:

**PROVISION OF GOODS AND SERVICES BY CENTRAL GOVERNMENT**  
**PERCENTAGES OF TOTAL CENTRAL GOVERNMENT PROVISION**

| CATEGORIES                         | March Year |      |      |      |      |      |      |      |      |      |
|------------------------------------|------------|------|------|------|------|------|------|------|------|------|
|                                    | 1972       | 1973 | 1974 | 1975 | 1976 | 1977 | 1978 | 1979 | 1980 | 1981 |
|                                    | (1)        | (2)  | (3)  | (4)  | (5)  | (6)  | (7)  | (8)  | (9)  | (10) |
| 1. Collective Goods                | 12.4       |      | 11.8 |      | 11.4 | 11.3 | 10.8 | 11.0 | 11.1 | 11.9 |
| 2. Individual and Economic Welfare | 19.4       |      | 20.4 |      | 19.0 | 18.8 | 18.1 | 18.7 | 18.3 | 19.2 |
| 3. Transfers                       |            |      |      |      |      |      |      |      |      |      |
| A) Current                         |            |      |      |      |      |      |      |      |      |      |
| i Social Assistance                | 16.9       |      | 20.8 |      | 19.5 | 21.6 | 23.6 | 23.3 | 24.8 | 23.4 |
| ii Other                           | 1.9        |      | 2.0  |      | 2.0  | 2.1  | 1.9  | 2.0  | 2.5  | 2.4  |
| iii (a) Subsidies                  | 4.0        |      | 4.9  |      | 7.4  | 3.8  | 3.5  | 4.7  | 3.3  | 2.7  |
| (b) Interest Concessions           |            |      |      |      |      | 0.4  | 0.4  | 0.4  | 0.4  | 0.4  |
| B) Debt Interest                   | 7.0        |      | 6.6  |      | 5.6  | 6.7  | 6.5  | 7.0  | 7.8  | 7.5  |
| C) Financial Transfers             |            |      |      |      |      |      |      |      |      |      |
| i Misc. Investment                 | 3.4        |      | 1.9  |      | 0.7  | 0.6  | 0.6  | -    | -    | 0.8  |
| ii Misc. Finance                   | -          |      | -    |      | 5.9  | 3.6  | 3.8  | 4.2  | 3.6  | 3.4  |
| D) Tax Expenditure                 |            |      |      |      |      |      |      |      |      |      |
| i Personal                         | 12.1       |      | 8.3  |      | 9.6  | 8.6  | 9.0  | 6.6  | 4.7  | 4.1  |
| ii Business                        | 0.6        |      | 1.7  |      | 2.0  | 2.4  | 2.2  | 2.2  | 2.3  | 3.1  |
| 4. Marketable goods and services   | 21.8       |      | 21.9 |      | 16.7 | 20.1 | 19.2 | 19.4 | 20.8 | 20.7 |

Source: Table 6a:

TABLE: 6c

**SOCIAL WELFARE PROGRAMME**  
(March Year)

(Percentage Share Total Provision)

|  | 1972 | 1974 | 1976 | 1977 | 1978 | 1979 | 1980 | 1981 |
|--|------|------|------|------|------|------|------|------|
|  | (1)  | (2)  | (3)  | (4)  | (5)  | (6)  | (7)  | (8)  |
| Individual and<br>Economic Welfare     | 19.4 | 20.4 | 19.0 | 18.8 | 18.1 | 18.7 | 18.3 | 19.2 |
| Social Assistance                      | 16.9 | 20.8 | 19.5 | 21.6 | 23.6 | 23.3 | 24.8 | 23.4 |
| Personal Tax<br>Expenditures           | 12.1 | 8.3  | 9.6  | 8.6  | 9.0  | 6.6  | 4.7  | 4.1  |
| Share of Total<br>Government Provision | 48.4 | 49.5 | 48.1 | 49.0 | 50.7 | 48.6 | 47.8 | 46.7 |

Source: Table 6b

## SECTION 7

7.

ORGANISATIONAL FORM

Diversity as a public sector characteristic is not confined to what is provided. The administrative structures and organisational forms of the various public sector entities providing the goods and services are also diverse. There are ordinary administrative and social service departments, such as Treasury and Social Welfare; there are boards and councils, such as the Education Boards and University and Tertiary Education Councils; there are unincorporated trading organisations, some of which are a partial mix of ordinary administrative department and trading activity, such as the tourist services within the Department of Tourist and Publicity; there are public corporations and companies, commissions and government owned and/or controlled financial intermediaries such as the Development Finance Corporation. Under the wing of the major administrative departments is a host of advisory bodies, regulatory authorities and tribunals all associated with the delivery of public service in one way or another.

The tables (set number 7) in this section show for each of the major organisational forms what category of good entities of that form provide and how that provision is funded. Combining this with the market non-market distinction then gives a four-way classification: category of good, by organisational form, by method of funding and whether market or non-market. In a later section a distinction will also be drawn between funding of current operations and of capital formation.

Within each of the market and non-market segments of the public sector activity, a single organisational form is dominant. In the market sector, it is the unincorporated trading organisation; in the non-market sector, it is the ordinary administrative department. Nevertheless within each of these major segments the situation has not been entirely static over the seventies (see table 7a).

Within the non-market segment the ordinary administrative department is still by far the dominant organisational form, although its significance has slowly declined throughout the seventies. That of the semi-autonomous board and council - that is, hospital and educational boards, university and tertiary educational institutions and councils - has remained more or less constant. It is the self-funding organisational form which has grown in relative importance; here we have commissions, such as the Earthquake and War Damages Commission; boards such as the Fishing Industry Board; and corporations such as the Accident Compensation Corporation and the New Zealand Housing Corporation's Housing Finance Division. All of these are financed from their own specific levies or interest charges<sup>20</sup>.

Within the market segment the unincorporated trading organisation still remains the dominant organisational form. There has moreover been no significant change in the relative contributions made by the various organisation forms to gross domestic product in recent years. On average,

---

<sup>20</sup> (Government refunds the interest rate concession given by the Housing Division, however.)



1972 to 1981, the share was about 61 percent for the unincorporated enterprises, 25% for public corporations and companies (including the financial intermediaries) and about 14% for other self-funded organisations and Government departments.

A summary of the pattern for 1971/72 to 1980/81 is shown in Table 7(c). If transfers, as here defined, are seen as part of what government provides the principal features of public sector provision in that period were the following.

- (i) The characteristic activity was non-market (some 80%).
- (ii) The principal type of provision was the transfer payment (49.7% of total provision).
- (iii) The characteristic organisational form was the ordinary Administrative and Social Welfare Department, through which some 64% of public sector provision was made. A further 18.9% was made available through boards, councils and commissions.
- (iv) Market orientated organisational forms, such as those of the public corporation and publicly owned company and to a lesser degree the unincorporated trading organisations outside the public account, were relatively insignificant within the total picture, covering about 17% of what government provided.

TABLE 7a CENTRAL GOVERNMENT PRODUCTION BY TYPE OF ORGANISATION AND METHOD OF FUNDING

| MARKET PRODUCTION |  |  |  |   |   |  |
|-------------------|--|--|--|---|---|--|
| Share produced by |  |  |  |   |   |  |
| March Year        | Total Market Production \$m (Contributions to GDP) | Unincorporated Trading Organisations within public account % | Unincorporated Trading Organisations outside public account <sup>1</sup> % | Government owned and/or controlled corporations and companies % | Central Government owned and/or controlled financial intermediaries % | Market orientated activity within Government departments and self funded organisations (e.g. Earthquake War Damage Commission) % |
|                   | (1)  | (2)  | (3)  | (4)   | (5)   | (6)  |
| 1971/2            | 573  | 5.6  | 59.2   | 15.0  | 5.6   | 4.6  |
| 1972/3            | 662  | 7.6  | 61.8   | 16.2  | 5.4   | 9.0  |
| 1973/4            | 738  | 7.8  | 53.8   | 17.1  | 6.3   | 15.0   |
| 1974/5            | 766  | 5.5  | 51.3   | 19.5  | 6.8   | 16.9   |
| 1975/6            | 863  | 4.4  | 49.5   | 21.2  | 6.8   | 18.1   |
| 1976/7            | 1180   | 4.6  | 54.5   | 21.5  | 6.2   | 14.2   |
| 1977/8            | 1421   | 4.0  | 55.5   | 20.3  | 5.1   | 15.1   |
| 1978/9            | 1684   | 3.9  | 54.3   | 20.1  | 6.0   | 15.7   |
| 1979/80           | 2101   | 4.2  | 58.0   | 18.2  | 5.4   | 14.2   |
| 1980/81           | 2475   | 4.0  | 57.9   | 18.0  | 6.5   | 13.6   |

| NON MARKET PRODUCTION |   |   |  |   |
|-----------------------|---|---|--|---|
| Share produced by     |   |   |  |   |
| March Year            | Total non-market Contributions to GDP \$m | Ordinary Administrative and Social Service Departments <sup>2</sup> % | Semi-autonomous Boards and Councils <sup>3</sup> % | Self-funded Social Security schemes and other non-market production % |
|                       | (1)                                       | (2)   | (3)  | (4)   |
| 1971/2                | 617                                       | 76.3  | 23.5   | 0.2   |
| 1972/3                | 691                                       | 71.7  | 28.1   | 0.2   |
| 1973/4                | 825                                       | 70.6  | 29.1   | 0.3   |
| 1974/5                | 980                                       | 70.0  | 29.7   | 0.3   |
| 1975/6                | 1174                                      | 69.4  | 30.2   | 0.4   |
| 1976/7                | 1324                                      | 67.6  | 30.4   | 2.0   |
| 1977/8                | 1571                                      | 67.6  | 30.4   | 2.0   |
| 1978/9                | 1943                                      | 67.4  | 30.5   | 2.1   |
| 1979/80               | 2244                                      | 67.1  | 30.7   | 2.1   |
| 1980/81               | 2821                                      | 68.3  | 29.6   | 2.1   |

SOURCE: Derived from NZSNA data base

Notes: 1 For consistency the Mines and Electricity Divisions of Ministry of Energy and Railways are included throughout as being outside Public Account.

2 These are directly funded from the Public Account

3 The Boards, Institutes and Councils are indirectly funded from Public Account

TABLE 7b:

SUMMARY OF PUBLIC PROVISION OF GOODS AND SERVICES,  
BY ORGANISATIONAL FORM

(Average) 1971 to 1981

| Organisational Form                    | M A R K E T      |  | N O N - M A R K E T             |   | Share of Total Provision by Organisation |
|--|------------------|--|---------------------------------|---|--|
|  | Type of Good     | Type of Good as Share of Total Provision of all Goods and Services | Type of Good                    | Type of Good as Share of Provision of all Goods |  |
| 1. Ordinary Administrative Departments | Marketable Goods | 2.9  | Collective Goods Transfers      | 11.5<br>49.7                                    | 64.0                                     |
| 2. Board, Council and/or Commission    |                  |  | Individual and Economic Welfare | 18.9  | 18.9                                     |
| 3. Unincorporated Enterprise:          |                  |  |                                 |   |  |
| - within Public Account                |                  | 1.0  |                                 |   |  |
| - outside Public Account               | Marketable Goods | 11.1   |                                 |   | 12.2                                     |
| 4. Public Corporation or Company       |                  | 3.7  |                                 |   | 3.7                                      |
| 5. Government Financial Intermediary   |                  | 1.2  |                                 |   | 1.2                                      |
|  |                  | 19.9   |                                 | 80.1  | 100                                      |

Notes: This table is read as follows: Take for example 1. Ordinary Administrative Departments: reading across the row we show that these departments provide market-output equivalent in value to about 2.9 percent of all the public sector provides; they provide also collective goods equivalent in value to 11.4 percent of total provision and transfers equivalent in value to 49.7 of total provision. In all, the Ordinary Administrative Departments have provided on average for the period about 64 percent of Government's total provision of goods and services.

## SECTION 8

8. FUNDING - CURRENT ACTIVITY

Diversity as a characteristic applies also to the nature and extent of government financial support to the activities of the various entities. Some of what government provides is financed by direct charge to the user or consumer. Some is financed from central government sources. Our concern here is with the extent and nature of those central government payments. We shall accordingly say that a service is publicly funded to the extent to which it is made available at no direct charge to the user or consumer. Such funding will be here called Public Account Financing.<sup>21</sup>

On this usage, funding of non-market activity is almost entirely public account financing. The exceptions are non-market activities of the self-funding organisations - such as Accident Compensation Corporation - within the public account (see Table 7a).

Government financial support for its own market production is also diverse, for both the current and the capital activities. With respect to the current operations the pattern is shown in Tables 7a and 8a:

- (i) Only the self-funding organisations within the public account and the Government owned and/or controlled financial intermediaries are independent of public finance. They finance by charging the user<sup>22</sup>
- (ii) Most other trading activity, whether by an unincorporated body or a public company or corporation receives some subsidy payment from the Public Account. Since 1973/74 about 33% of total SNA subsidies (see Table 7b) have been made to government market producers, the bulk going to the unincorporated organisations outside the public account - in the main N.Z. Railways and the Ministry of Energy.

---

21 This usage is not strictly that of the existing public accounts however. Those accounts include departmental receipts within the Consolidated Account; here however we are in effect re-allocating those receipts to the particular type of public sector organisation providing the good or service, treating them as user payments rather than public finance. Another reason for doing this is because within the N.Z.S.N.A. classification some of these receipts would be treated as market sales by the departments concerned and called therefore market rather than non-market output. We follow that usage here.

22 It should be pointed out however that government reimburses the Reserve Bank for any foreign exchange losses the Bank incurs in administering New Zealand's foreign exchange reserves.

23 In the main, subsidy payment to these trading organisations is to cover their subsidised works support schemes and loss of profit as a result of a low price policy by government.



(iii) However, on a unit per dollar of contribution to Gross Domestic Product basis the greatest degree of subsidisation is now for the output of the unincorporated trading organisations within the public account - for example Forest Service, Lands and Survey farms, and the Tourist Service of the Department of Tourist and Publicity.<sup>23</sup>

To put this degree of subsidy payment in its wider context Table 8b shows subsidies for gross domestic product in general and for the market output of the private sector and government. As that table indicates the relationship of subsidisation to gross domestic product is now (1981) much the same at 1-1/2% as it was in the early seventies; while that for government market production other than for the financial intermediaries has increased. Subsidisation for private sector market production has been fairly stable, though the 1980 and 1981 figures are a little out of line with the rest of the period. It may appear that the government sector market output is more heavily subsidised than private sector market output. But against that judgement one should balance the decline in the effective corporate tax rate and the increase in business tax expenditures (as shown in Table 6). The overt subsidisation of private production may now have given way to a less obvious subsidisation through increased tax expenditures.

A broad summary overview of public financing of the current activities is given in Table 8(c): that table makes an attempt also to show the financing by organisation form, and type of good or service, on average for the last ten years. Broadly it indicates that government non-market production is financed for all but 1 to 2% as public account financing. Government market production on the other hand is almost entirely funded from sale to the user; its only funding from the public account, is subsidies which amount on average to about 5% of non-market contribution to GDP. On this pattern it appears that about 80% of what central Government provides is Public Account financed(see table 8(a)).

TABLE 8a

## FUNDING - CURRENT ACTIVITY

| Year | MARKET                                     |                |   | NON-MARKET                  |                           |   | Proportion<br>Total<br>Financed<br>from Public<br>Account<br>(percent) |
|------|--|----------------|---|-----------------------------|---------------------------|---|--|
|      | Total<br>Provision<br>\$(m)<br>Cont.to GDP | Subsidy<br>\$m | Proportion Financed<br>from Public Account<br>(percent) | Total<br>Provision<br>(\$m) | Sales <sup>1</sup><br>\$m | Proportion Financed<br>from Public Account<br>(percent) |  |
|      | (1)  | (2)            | (3)   | (4)                         | (5)                       | (6)   | (7)  |
| 1972 | 573  | 12             | 2.1   | 2,046                       | 38                        | 98.2  | 77.1   |
| 1973 | 662  | 11             | 1.7   | NA                          | 43                        | NA  | -  |
| 1974 | 738  | 21             | 2.8   | 2,643                       | 52                        | 98.0  | 77.2   |
| 1975 | 766  | 94             | 12.3  | NA                          | 54                        | NA  | -  |
| 1976 | 863  | 137            | 15.8  | 4,308                       | 69                        | 98.4  | 84.2   |
| 1977 | 1,180                                      | 45             | 3.8   | 4,685                       | 82                        | 98.2  | 79.2   |
| 1978 | 1,421                                      | 92             | 6.5   | 5,962                       | 90                        | 98.5  | 80.8   |
| 1979 | 1,684                                      | 137            | 8.1   | 6,999                       | 101                       | 98.6  | 81.1   |
| 1980 | 2,101                                      | 144            | 6.8   | 7,996                       | 108                       | 98.7  | 81.0   |
| 1981 | 2,475                                      | 138            | 5.6   | 9,487                       | n.a.                      | n.a.  | n.a.   |
| Mean |  |                |   |                             |                           |   |  |
| 1972 |  |                |   |                             |                           |   |  |
| to   |  |                |   |                             |                           |   |  |
| 1980 |  |                | 5.8   |                             |                           | 98.4  | 80.0   |

Note: N.A. in these years estimates of tax expenditures could not be made  
- no data on company taxation are available.

n.a. data on sales are not yet available, so estimates can not be given here for 1981.

1 Public Accounts receipts only.

Source: Derived from NZSNA data base and Public Accounts.

TABLE 8b

SUBSIDY PAYMENTS<sup>1</sup>

| March<br>Year | Total NZSNA<br>subsidies<br><br>\$m | Payments to  |  |  |
|---------------|-------------------------------------|--|--|--|
|               |                                     | Central Government<br>sector market<br>production<br>\$m | Private sector<br>market production<br>\$m | Local Government<br>market production<br>\$m |
|               |                                     | (1)  | (2)  | (3)  |
| 1972          | 109                                 | 12   | 91   | 6  |
| 1973          | 129                                 | 11   | 109  | 10   |
| 1974          | 163                                 | 21   | 129  | 12   |
| 1975          | 238                                 | 94   | 129  | 15   |
| 1976          | 391                                 | 137  | 235  | 19   |
| 1977          | 241                                 | 45   | 174  | 22   |
| 1978          | 277                                 | 92   | 160  | 26   |
| 1979          | 442                                 | 127  | 175  | 31   |
| 1980          | 351                                 | 144  | 173  | 34   |
| 1981          | 345                                 | 138  | 173  | 34   |

Source: Department of Statistics: Monthly Abstract of Statistics,  
May 1981, p.120.

SUBSIDY RELATED TO GDP<sup>1</sup>  
(Percent)

PART B

| March<br>Year | Total subsidy<br>to total GDP | Private sector<br>market production<br>contr. to GDP. | Central Government<br>market production<br>contr. to GDP. |
|---------------|-------------------------------|---|---|
|               | (1)                           | (2)   | (3)   |
| 1972          | 1.6                           | 1.7   | 2.1   |
| 1973          | 1.6                           | 1.8   | 1.7   |
| 1974          | 1.8                           | 1.8   | 2.8   |
| 1975          | 2.4                           | 1.7   | 12.3  |
| 1976          | 3.4                           | 2.7   | 15.9  |
| 1977          | 1.7                           | 1.6   | 3.8   |
| 1978          | 1.8                           | 1.4   | 6.5   |
| 1979          | 2.5                           | 2.1   | 8.1   |
| 1980          | 1.7                           | 1.1   | 6.8   |
| 1981          | 1.5                           | 1.0   | 5.6   |

Source: Derived from NZSNA database.

Note<sup>1</sup>: Subsidies are paid only to market production groups. They are transfer payments in the form of grants made to producers to maintain the market price at a level lower than it would otherwise be. Also included are payments to government corporations and organisations for losses incurred due to pricing policies of Government (e.g. Railways) and on the imputed losses of Government market orientated establishments whose pricing policy is not intended to cover the cost of production (e.g. vehicle testing stations, Ministry of Transport and irrigation maintenance activity of the Ministry of Works and Development).



TABLE 8c:

SUMMARY OF FINANCING OF PUBLIC PROVISION,  
BY ORGANISATIONAL FORM AND TYPE OF GOOD OR SERVICE  
(Average) 1971/2 TO 1979/80

| Category<br>of Good or<br>Service                | <u>Market</u>  |   | <u>Non-Market</u>            |   | Share Total<br>Public<br>Finance for<br>Each Good |
|--|--|---|------------------------------|---|---|
|  | Organisation form  | How-Financed  | Organisation Form            | How-Financed  |   |
| 1. Collective<br>goods                           |  |   | Ordinary<br>Department       | 93.8 percent<br>from Public<br>Account; balance<br>sales to users   | 14.1  |
| 2. Transfers                                     |  |   | Ordinary<br>Department       | Wholly from<br>Public Account   | 61.3  |
| 3. Individual<br>and Economic<br>Welfare         |  |   | Board, Council<br>Commission | Deverse: Some self<br>funding organisa-<br>tions financed<br>from levies:<br>bulk of balance<br>(96.8 percent<br>from Public<br>Account and 3.2<br>percent from sale<br>to user | 23.3  |
| 4. Marketable<br>goods                           | )Unincorporated<br>)Enterprises<br>)<br>)<br>)<br>)<br>)Public<br>)Corporation<br>)<br>)Government<br>)Financial<br>)Intermediary<br>)<br>)<br>) | Bulk from<br>charges to<br>user; rest,<br>7.6%, subsidy<br>from Public<br>Account<br><br>Bulk from charges<br>to user, 2.3%<br>subsidy<br><br>Largely from<br>charges to user<br>(some interest<br>rate concession<br>repayment from<br>Public Account) | Ordinary<br>Department       | From department<br>receipts   | 2.9   |
| Share<br>Financed from<br>own revenue<br>sources |  | 94.2  |                              | 1.6   |   |

**NOTE:** This table gives an overview of how public provision is funded. The extreme righthand column is read as showing the share of Public Account Finance associated with each type of provision. The last row shows the share of market and non-market provision which is self-funded from user charges

## SECTION 9

9.

CAPITAL FORMATION

Government's production of current goods and services is only part of its total production activity. Its production groups, both market and non-market, are major contributors to the economy's fixed capital formation. Over the twenty years up to 1981, these groups put in place about 22.5 percent of all fixed capital formation.<sup>24</sup> Within this overall pattern, capital formation by the non-market groups was (for the 1970s) the more stable and smaller contribution (see table 9a).

A feature of government's capital formation is the variability of the annual proportionate contribution over the last twenty years (table 9a). This variability results primarily from fluctuations in private sector capital formation, which has been more sensitive to immediate economic circumstances than has government investment. In the growth phase of the 1960s, private capital formation grew at about the same rate as real GDP (3 percent) while government's real capital formation, although up in one or two years, did not grow at all on average. Government's share accordingly fell. But in the early 1970s, under the stimuli of growing export earnings, an appreciating exchange rate and expansionary government policy, both private and government capital formation grew more rapidly than GDP up to 1973/74 - government investment faster than private. From 1973/74 to 1975/76 private real capital formation held at a more or less constant level immediately after the OPEC first oil shock, before collapsing in 1976/7. Government real investment held up rather longer. It began its fall, under the post-election tighter expenditure control in 1976/77, with a 19 percent drop in real terms then slowly slipping further to finally plummet 23 percent in real terms in 1979/80. Real private capital formation had, however, been continuously falling since 1976/77, and this helped to sustain government's relative share of the falling overall amount of capital put in place since 1976/77. In this period, both the government and the private sector were reducing their claims on and use of real investment resources.

A more detailed break-down of government capital formation by the various production groups is shown in table 9b. A feature of interest is the amount and range of capital formation undertaken by government enterprises other than the major trading organisations (Railways, Energy), and why there are so many different types of production groups.

The explanations for these features lie further back in our history than the twenty years covered in this study. Much of what government now does, and has done for the last decade, is a direct consequence of earlier decisions and reasons for establishing various government enterprises and/or becoming involved in the economy. The detail of those reasons cannot be covered here. But basically they all stem from a pragmatic responsiveness to public pressure and needs<sup>25</sup> and New Zealanders' early (if not always ready) acceptance in

---

24 This contribution to real fixed capital formation was higher than government's 18 percent contribution to real GDP for the same period.

25 For a discussion of this aspect of governments involvement see Jeanette Johnston and Adrienne Von Tunzelmann The State in Business (Wellington: New Zealand Planning Council, Planning Paper No.15 1982.)

the 19th century of the concept of government as social and economic engineer.<sup>26</sup> If our small economy was to quickly reach its growth potential, and obtain and then maintain the standard of amenity expected of a civilised modern economy only government could marshal the necessary resources and under-take the capital formation needed. It would have to intervene to put in place the appropriate economic and social infra-structure; it would have to be the source of venture capital, and so absorb much of the risk, for major projects; and it would also have to provide sufficient countervailing power in those areas of the market otherwise likely to be dominated by monopoly or multi-national interests.

Often the reason for government's establishment of enterprises and involvement was a mixture of all three of these roles. Nevertheless, each has had a discernable influence on the nature of government's involvement and thus on its past, current and continuing direct contribution to capital formation.

While no precise indication of the influence of each role can be given, table 9b can be used to illustrate the relative significance of each of these roles with respect to capital formation over the ten years to 1981:

- The continuing investment by government's non-market production groups needed to maintain and administer the provision of Collective Goods, Individual and Economic Welfare Services and Social Assistance Transfers is an aspect of government in its role as provider of social infra-structure. Some 34 percent of government's capital formation over the last ten years was in this area (see table 9b).
- As a provider of economic infra-structure, governments set up major trading organisations such as Railways, Post Office, State Coal Mines, New Zealand Electricity Department. Some 44 percent of government's fixed capital formation over the last ten years was undertaken by such trading organisations.
- Acting as a source of venture capital for major projects, government provided capital for the establishment of Tasman Pulp and Paper Co, New Zealand Steel, The New Zealand Shipping Corporation and set up the Broadcasting Corporation of New Zealand and the Petroleum Corporation of New Zealand. Some of these remain wholly government owned or controlled (51 percent share or more). Some, such as New Zealand Steel, have been sold off to the private sector. Over the last ten years, those corporations still under Government ownership or control, carried out 17 percent of government capital formation.
- In order to provide countervailing market power, Government establishing control or ownership of some financial intermediaries,<sup>27</sup> the State Insurance and Government Life Offices. These financial institutions, together with the Development Finance Corporation and Rural Bank (both established by Government rather more as sources of venture capital than

---

26 See G R Hawke, Government in the New Zealand Economy (Wellington New Zealand Planning Council, Planning Paper No 13, June 1982.)

27 Hawke op.cit. pp 15-20. Professor Schmitt has pointed out to me that Government's desire and ability to balance the powers of competing interests has often required that it carry-out some market activities principally as a monitorial function. The market activities of the Forest Service are examples.

countervailing market power), the Bank of New Zealand and the Reserve Bank carried out 2 percent of government capital formation in the last ten years.<sup>28</sup>

Over the last decade, the major type of government fixed capital outlay was on construction, providing some 61 percent of all government capital formation - see Table 9c. But it was not, as many may believe, residential construction; residential construction amounted on average to only about 5 percent of government's annual capital formation.<sup>29</sup> The bulk of government construction was in non-residential buildings (some 32 percent on average) and other construction (some 24 percent on average). The other major investment types were Plant, Machinery and Equipment (some 25 percent) and Transport (the most variable proportion, averaging about 11.0 percent).

In the main, capital formation by government market-sector production was also concentrated in a few kinds of economic activity (see Table 9d): notably, Energy, Mining, Transport and Communication and Finance and Insurance (which includes the Post Office). A detailed look at investment by type of capital good in a selection of Government trading organisations and the Ministry of Works<sup>30</sup> engaged in these lines of economic activity, is shown in Table 9e. Not surprisingly, the dominance of construction (about 60 percent of total) again shows itself, although that dominance has been declining with the fall-off in real investment in the last few years.

A summary pattern for capital formation and current activity for the 1970s is brought together in Table 9f: that table shows for each production entity group, the category of current provision, the relevant share of that provision by organisational form of the entity providing it, the relative share of government capital formation associated with that particular type of provision and organisational form, and the relative market, non-market shares in each case.

- 
- 28 The more recent participation by government in such projects as Synfuel is also an example of government providing countervailing power, as well as venture capital, in major projects otherwise likely to be undertaken only by multi-nationals.
- 29 This points up the fact that government's role in providing social assistance in housing lay (at least, over the 1970s) not so much in the actual construction of housing but in the provision (through the NZ Housing Corporation) of loan moneys at concessional rates and/or to people who would not otherwise obtain such funds. If this lending resulted in house construction, it would be private sector construction. So Government's provision of housing had for most of the 1970s already been largely privatised.
- 30 Capital formation in these selected enterprises accounted for about 41 percent of total Central Government capital formation in the 1970s.

TABLE 9a

CENTRAL GOVERNMENT GROSS FIXED CAPITAL FORMATION, 1960/1 TO 1980/1

| March<br>year | Nominal (\$m) |        |            |        | Constant Price (1976/7) |        |        |            |     | Total at<br>Constant Price<br>(\$1976/7m) |      |        |
|---------------|---------------|--------|------------|--------|-------------------------|--------|--------|------------|-----|---|------|--------|
|               | market        |        | non-market |        | Total \$m               |        | Terms: |            |     |   |      |        |
|               | (1)           | (2)    | (3)        | (4)    | (5)                     | (6)    | market | non-market | (9) | (10)                                      | (11) | (12)   |
| 1960/1        |               |        |            |        | 133                     | (22.2) |        |            |     |   | 423  | (22.2) |
| 1961/2        |               |        |            |        | 126                     | (20.1) |        |            |     |   | 394  | (20.1) |
| 1962/3        |               |        |            |        | 118                     | (19.2) |        |            |     |   | 365  | (19.2) |
| 1963/4        |               |        |            |        | 141                     | (20.6) |        |            |     |   | 433  | (20.6) |
| 1964/5        |               |        |            |        | 177                     | (22.3) |        |            |     |   | 527  | (22.3) |
| 1965/6        |               |        |            |        | 184                     | (20.9) |        |            |     |   | 532  | (20.9) |
| 1966/7        |               |        |            |        | 161                     | (17.5) |        |            |     |   | 459  | (17.5) |
| 1967/8        |               |        |            |        | 189                     | (21.3) |        |            |     |   | 574  | (21.2) |
| 1968/9        |               |        |            |        | 157                     | (18.3) |        |            |     |   | 385  | (18.3) |
| 1969/70       |               |        |            |        | 173                     | (17.2) |        |            |     |   | 409  | (17.2) |
| 1970/1        |               |        |            |        | 222                     | (18.3) |        |            |     |   | 469  | (18.3) |
| 1971/2        | 190           | (13.5) | 132        | (9.4)  | 322                     | (22.8) | 357    | (13.3)     | 288 | (9.6)                                     | 615  | (22.9) |
| 1972/3        | 246           | (14.0) | 180        | (10.2) | 426                     | (24.2) | 444    | (14.0)     | 325 | (10.2)                                    | 769  | (24.2) |
| 1973/4        | 261           | (12.6) | 174        | (8.4)  | 435                     | (21.2) | 449    | (12.6)     | 299 | (8.4)                                     | 748  | (21.1) |
| 1974/5        | 435           | (16.6) | 223        | (9.0)  | 658                     | (25.6) | 644    | (16.6)     | 345 | (9.0)                                     | 985  | (25.6) |
| 1975/6        | 676           | (21.6) | 284        | (9.1)  | 960                     | (30.7) | 803    | (21.6)     | 338 | (9.1)                                     | 1141 | (30.7) |
| *1976/7       | 644           | (18.7) | 284        | (8.3)  | 928                     | (26.9) | 644    | (18.7)     | 284 | (8.3)                                     | 928  | (26.7) |
| *1977/8       | 735           | (21.6) | 309        | (9.1)  | 1044                    | (30.7) | 628    | (21.6)     | 264 | (9.0)                                     | 892  | (30.6) |
| *1978/9       | 768           | (21.7) | 338        | (9.5)  | 1106                    | (31.2) | 598    | (21.9)     | 263 | (9.6)                                     | 861  | (31.3) |
| *1979/80      | 588           | (15.3) | 335        | (9.0)  | 923                     | (24.3) | 417    | (15.3)     | 238 | (9.0)                                     | 655  | (24.3) |
| *1980/1       | 651           | (15.3) | 380        | (8.9)  | 1031                    | (24.2) |        |            |     |   |      |        |

Note: - figures in parenthesis are percentages of total (private plus local and central government) gross fixed capital formation

- No data are available on the market non-market breakdown before 1971/2

Source - NZSNA data base; and, for columns 5,6,11,12 1960/1 to 1971/2, Reserve Bank Research Paper No.32 and up-dates.

\*Provisional

TABLE 9b

## CENTRAL GOVERNMENT GROSS FIXED CAPITAL FORMATION 1971/2 - 1980/81

MARKET PRODUCTION

| March<br>Year | Unincorporated<br>Trading<br>Organisations |                              | \$ Million                 |  |   |  |  |                                |
|---------------|--|------------------------------|----------------------------|--|---|--|--|--------------------------------|
|               | Within<br>Public<br>Account                | Outside<br>Public<br>Account | Government<br>Corporations | Government<br>Controlled<br>Financial<br>Intermed-<br>iaries | Ordinary<br>Administrative<br>Departments | Boards<br>Councils<br>and<br>Commissions | Self<br>Funded Orgs<br>(Includes<br>Acc and<br>NZ Supercorp) | Market<br>Capital<br>Formation |
|               | (1)  | (2)                          | (3)                        | (4)  | (5)                                       | (6)                                      | (7)  | (8)                            |
| 1971/72       | 13.9                                       | 138.9                        | 17.1                       | 8.0  | 10.1                                      | 2.4                                      | -  | 190.3                          |
| 1972/73       | 15.1                                       | 167.9                        | 44.5                       | 7.8  | 7.8                                       | 3.0                                      | -  | 246.1                          |
| 1973/74       | 19.5                                       | 158.0                        | 62.9                       | 9.8  | 8.4                                       | 2.5                                      | -  | 261.3                          |
| 1974/75       | 18.4                                       | 249.8                        | 136.4                      | 9.3  | 15.9                                      | 4.2                                      | 0.4  | 434.7                          |
| 1975/76       | 21.8                                       | 384.0                        | 222.5                      | 12.9   | 26.8                                      | 6.7                                      | 1.1  | 675.7                          |
| *1976/77      | 22.6                                       | 400.1                        | 179.1                      | 14.8   | 17.2                                      | 7.2                                      | 3.1  | 643.7                          |
| *1977/78      | 30.2                                       | 425.6                        | 225.5                      | 19.0   | 26.0                                      | 5.4                                      | 3.3  | 734.9                          |
| *1978/79      | 34.4                                       | 459.4                        | 213.1                      | 28.3   | 24.5                                      | 4.4                                      | 3.8  | 767.9                          |
| *1979/80      | 29.4                                       | 383.9                        | 122.3                      | 22.5   | 24.2                                      | 3.2                                      | 1.7  | 587.2                          |
| *1980/81      | 36.2                                       | 413.9                        | 124.1                      | 44.9   | 29.2                                      | 2.1                                      | 0.4  | 650.8                          |

NON MARKET PRODUCTION

|          |  |  |       | Non<br>Market<br>Capital<br>Formation |
|----------|--|--|-------|---------------------------------------|
| 1971/72  |  |  | 101.7 | 31.0                                  |
| 1972/73  |  |  | 144.2 | 35.9                                  |
| 1973/74  |  |  | 139.9 | 33.9                                  |
| 1974/75  |  |  | 179.4 | 43.4                                  |
| 1975/76  |  |  | 219.9 | 63.5                                  |
| *1976/77 |  |  | 203.9 | 77.2                                  |
| *1977/78 |  |  | 226.8 | 77.8                                  |
| *1978/79 |  |  | 239.5 | 89.8                                  |
| *1979/80 |  |  | 223.5 | 102.0                                 |
| *1980/81 |  |  | 265.0 | 105.8                                 |

Source: Derived from NZSNA data base

\*Provisional

TABLE 9c(i)

COMPOSITION OF CENTRAL GOVERNMENT GROSS FIXED CAPITAL  
FORMATION BY TYPE OF CAPITAL GOODS

\$(million)

| Year     | Residential<br>Buildings | Non-Residential<br>Buildings | Other<br>Construction | Land<br>Improvements | Transport | Plant<br>Machinery<br>and Other<br>Equipment | Total |
|----------|--------------------------|------------------------------|-----------------------|----------------------|-----------|--|-------|
|          | (1)                      | (2)                          | (3)                   | (4)                  | (5)       | (6)  | (7)   |
| 1971/72  | 13                       | 107                          | 92                    | 21                   | 16        | 75   | 323   |
| 1972/73  | 20                       | 133                          | 116                   | 4                    | 48        | 105  | 426   |
| 1973/74  | 16                       | 148                          | 102                   | 4                    | 57        | 108  | 435   |
| 1974/75  | 48                       | 210                          | 150                   | 7                    | 103       | 140  | 658   |
| 1975/76  | 89                       | 284                          | 217                   | 9                    | 116       | 246  | 960   |
| 1976/77  | 63                       | 304                          | 193                   | 10                   | 82        | 276  | 928   |
| 1977/78* | 51                       | 293                          | 263                   | 14                   | 102       | 321  | 1,044 |
| 1978/79* | 50                       | 335                          | 253                   | 22                   | 165       | 281  | 1,106 |
| 1979/80* | 48                       | 285                          | 198                   | 21                   | 104       | 265  | 923   |
| 1980/81* | 41                       | 325                          | 199                   | 27                   | 101       | 336  | 1,031 |

\*Provisional

Source : NZSNA Data

TABLE 9c(ii) :

COMPOSITION OF CENTRAL GOVERNMENT GROSS FIXED CAPITAL FORMATION  
BY TYPE OF CAPITAL GOOD  
(percentage)

| Year    | Residential<br>Buildings | Non-Residential<br>Buildings | Other<br>Construction | Land<br>Improvements | Transport | Plant<br>Machinery<br>and Other<br>Equipment |
|---------|--------------------------|------------------------------|-----------------------|----------------------|-----------|--|
|         | (1)                      | (2)                          | (3)                   | (4)                  | (5)       | (6)  |
| 1971/72 | 4.0                      | 33.1                         | 28.5                  | 6.5                  | 4.9       | 23.2   |
| 1972/73 | 4.7                      | 31.2                         | 27.2                  | 0.9                  | 11.3      | 24.6   |
| 1973/74 | 3.7                      | 34.0                         | 23.4                  | 0.9                  | 13.1      | 24.8   |
| 1974/75 | 7.2                      | 31.9                         | 22.9                  | 1.0                  | 15.6      | 21.3   |
| 1975/76 | 9.2                      | 29.6                         | 22.7                  | 0.9                  | 12.0      | 25.6   |
| 1976/77 | 6.7                      | 32.7                         | 20.9                  | 1.0                  | 8.8       | 29.7   |
| 1977/78 | 4.9                      | 28.1                         | 25.2                  | 1.3                  | 9.8       | 30.7   |
| 1978/79 | 4.5                      | 30.2                         | 23.2                  | 1.9                  | 14.9      | 25.4   |
| 1979/80 | 5.3                      | 31.4                         | 24.0                  | 2.3                  | 9.5       | 29.3   |
| 1980/81 | 4.0                      | 31.5                         | 19.3                  | 2.6                  | 9.9       | 32.7   |



TABLE 9d

GROSS FIXED CAPITAL FORMATION BY KIND OF ECONOMIC ACTIVITY  
CENTRAL GOVERNMENT SECTOR

\$(million)

|  | 1971-72    | 1972-73    | 1973-74    | 1974-75    | 1975-76*   | 1976-77*   | 1977-78*    | 1978-79*    | 1979-80*   | 1980-81*    |
|--|------------|------------|------------|------------|------------|------------|-------------|-------------|------------|-------------|
| <b>(a) Market Production Groups</b>                                    |            |            |            |            |            |            |             |             |            |             |
| 1 Agriculture  | 6          | 5          | 6          | 9          | 13         | 9          | 12          | 19          | 19         | 29          |
| 2 Fishing & hunting  | -          | -          | -          | -          | -          | -          | -           | -           | -          | -           |
| 3 Forestry & logging   | 4          | 5          | 5          | 8          | 10         | 10         | 14          | 14          | 11         | 15          |
| 4 Mining & quarrying   | 1          | 2          | 3          | 20         | 76         | 93         | 94          | 72          | 41         | 35          |
| 5 Food, beverages & tobacco  | -          | -          | -          | -          | -          | -          | -           | -           | -          | -           |
| 6 Textiles, apparel & leather  | 1          | -          | -1         | -          | -          | -          | -           | -           | -          | -           |
| 7 Manufacture, wood products   | 1          | 1          | 1          | 1          | 1          | 1          | 1           | 2           | 1          | 3           |
| 8 Paper products & printing  | -          | -          | 1          | 1          | 1          | 1          | 1           | -           | 1          | 1           |
| 9 Chemicals, petroleum,<br>rubber, plastic                             | -          | -          | -          | -          | -          | -          | -           | -           | 19         | 31          |
| 10 Non-metallic mineral<br>products                                    | -          | -          | -          | -          | -          | -          | -           | -           | -          | -           |
| 11 Basic metal industries  | -          | -          | -          | -          | -          | -          | -           | -           | -          | -           |
| 12 Fabricated metal products   | 1          | 5          | 4          | 3          | 9          | 7          | 8           | 2           | 3          | 3           |
| 13 Other manufacturing   | -          | -          | -          | -          | -          | -          | -           | -           | -          | -           |
| 14 Electricity, gas, water   | 81         | 112        | 99         | 156        | 224        | 247        | 285         | 297         | 247        | 241         |
| 15 Construction  | 4          | 3          | 2          | 8          | 8          | 5          | 9           | 9           | 5          | 8           |
| 16 Trade, restaurants, hotels  | 2          | 4          | 3          | 3          | 3          | 5          | 4           | 3           | 3          | 2           |
| 17 Transport, storage  | 34         | 56         | 69         | 102        | 116        | 101        | 127         | 163         | 89         | 95          |
| 18 Communication   | 34         | 32         | 43         | 56         | 78         | 67         | 68          | 86          | 65         | 100         |
| 19 Financing, insurance etc  | 19         | 18         | 23         | 55         | 117        | 88         | 88          | 93          | 79         | 84          |
| 20 Ownership owner-occupied<br>dwellings                               | -          | -          | -          | -          | -          | -          | -           | -           | -          | -           |
| 21 Community, social,<br>personal services                             | 3          | 3          | 6          | 13         | 19         | 10         | 24          | 9           | 7          | 6           |
| <b>Total, Market Production<br/>Groups</b>                             | <b>190</b> | <b>246</b> | <b>261</b> | <b>435</b> | <b>676</b> | <b>644</b> | <b>735</b>  | <b>768</b>  | <b>588</b> | <b>651</b>  |
| <b>(b) Non-Market Production Groups</b>                                |            |            |            |            |            |            |             |             |            |             |
| 22 Central government<br>services                                      | 133        | 180        | 174        | 223        | 284        | 284        | 309         | 338         | 335        | 380         |
| 23 Local government services   | -          | -          | -          | -          | -          | -          | -           | -           | -          | -           |
| 24 Private non-profit services   | -          | -          | -          | -          | -          | -          | -           | -           | -          | -           |
| 25 Domestic services of<br>households                                  | -          | -          | -          | -          | -          | -          | -           | -           | -          | -           |
| <b>Total, Non-Market<br/>Production Groups</b>                         | <b>133</b> | <b>180</b> | <b>174</b> | <b>223</b> | <b>284</b> | <b>284</b> | <b>309</b>  | <b>338</b>  | <b>335</b> | <b>380</b>  |
| <b>Total, Central Government<br/>Gross Fixed Capital<br/>Formation</b> | <b>323</b> | <b>426</b> | <b>435</b> | <b>658</b> | <b>960</b> | <b>928</b> | <b>1044</b> | <b>1106</b> | <b>923</b> | <b>1031</b> |

Source: Monthly Abstract of Statistics, May 1981

\* Provisional

TABLE 9e

## GROSS FIXED CAPITAL FORMATION - SELECTED AGENCIES\*

| Year    | Total Capital<br>Formation | Amount of Construction:      |                    | Transport<br>& Machinery | Percentage<br>Constructions<br>to total<br>capital<br>formation |
|---------|----------------------------|------------------------------|--------------------|--------------------------|---|
|         |                            | Non-Residential<br>Buildings | Other construction |                          |   |
|         | \$m<br>(1)                 | \$m<br>(2)                   | \$m<br>(3)         | \$m<br>(4)               | %<br>(5)  |
| 1971/72 | 159.2                      | 18.7                         | 88.7               | 43.7                     | 67.5  |
| 1972/73 | 206.1                      | 34.2                         | 105.7              | 64.7                     | 67.8  |
| 1973/74 | 165.4                      | 23.0                         | 91.4               | 42.7                     | 70.0  |
| 1974/75 | 256.9                      | 54.4                         | 124.8              | 66.6                     | 69.7  |
| 1975/76 | 362.7                      | 65.8                         | 136.3              | 157.2                    | 55.7  |
| 1976/77 | 374.6                      | 84.8                         | 108.0              | 180.4                    | 51.5  |
| 1977/78 | 408.3                      | 28.1                         | 183.9              | 194.9                    | 51.9  |
| 1978/79 | 438.1                      | 64.7                         | 184.6              | 181.7                    | 56.9  |
| 1979/80 | 359.8                      | 14.2                         | 159.1              | 180.7                    | 48.2  |
| 1980/81 | 354.2                      | 17.0                         | 154.8              | 182.3                    | 48.5  |

Columns 2, 3 and 4 may not sum to total because Residential Building and Land Development are not shown here.

\* Ministry of Works, the Mines and Electricity Divisions of Ministry of Energy, NZ Railways

The table does not include the Housing Corporation.

Note: On average, 1974/5 to 1980/81, the Ministry of Works annual contract payments were equivalent to 48.5 percent of the total capital formation of these selected agencies.

TABLE 9f

GOVERNMENT CURRENT PROVISION AND CAPITAL FORMATIONBY TYPE OF GOOD AND ORGANISATION FORM(Average 1971/72 - 1979/80)

## NON-MARKET

| <u>Organisational<br/>Form</u> | <u>Type of Good</u>                | <u>Activity<br/>Share</u> | <u>Capital Formation<br/>Share</u> |
|--------------------------------|------------------------------------|---------------------------|------------------------------------|
| Ordinary Department            | Transfer                           | 49.7                      | 9.0                                |
|                                | Collective Good                    | 11.5                      |                                    |
| Board, Council Commission      | Individual and<br>Economic Welfare | 18.9                      | 24.3                               |
| Self-funded organisation       |                                    |                           | 0.5                                |
|                                | Non-market share<br>of total       | 80.1                      | 33.8                               |

## MARKET

|  |                          |      |      |
|--|--------------------------|------|------|
| Unincorporated<br>trading organisation | Marketable good          | 12.1 | 43.7 |
| Public Corporations                    | "                        | 3.7  | 17.0 |
| Government Financial<br>Intermediaries | "                        | 1.2  | 2.4  |
| Ordinary Department                    | "                        | 2.9  | 2.4  |
| Self-funded organisation               |                          |      | 0.2  |
| Boards, Councils and<br>Commissions    |                          |      | 0.5  |
|  | Market share of<br>total | 19.9 | 66.2 |

## SECTION 10

CAPITAL FUNDING

10.

Government's role in capital funding is both diverse and extensive. Sometimes Treasury raises funds which are channelled directly into capital formation in the non-market production divisions of government. Sometimes it acts as a financial intermediary, on-lending monies to government market production entities (the unincorporated trading organisations and public corporations such as N.Z. Railways) and to government owned financial intermediaries (such as the Rural Bank and the finance division of the N.Z. Housing Corporation). Sometimes it is an equity investor, purchasing shares, most often in wholly government-owned corporations and companies (such as Air N.Z. and the Bank of New Zealand), but also in private sector companies (for example, N.Z. Steel and Alliance Textiles Ltd): sometimes it acts as a banker, and lender of last resort making advances to private sector companies in some financial difficulty (for example the recent advance to Winstone's to help the ailing Karioi Pulp Mill); sometimes it makes capital advances to cover government's share of the participation in private sector/government joint ventures (such as Offshore Mining Co.); and it sometimes also stands as guarantor for private and/or semi-public corporate overseas loans and lines of credit (for example Petralgas Chemicals New Zealand Ltd, Devon Developments Ltd, and various Producer Boards).

There are various methods by which government accounts and charges for such financial assistance.<sup>31</sup> Some is treated as a grant, some as equity capital, and some as a loan bearing interest. In general, ordinary administrative departments are treated differently from trading organisations although, within each group, not uniformly. Fortunately, however, the detail of how government accounts and charges for advances need not detain us here. For the purposes of this section, all that matters is whether the assistance is or could be used to finance government capital formation and whether the service cost of such assistance is also a charge on the general sources of public revenue. Not all of government's capital assistance is so used or charged.

- (i) Capital advances such as part of those to the Rural Bank and Housing Corporation, which are on-lent by the recipient. Such assistance is a capital transfer payment rather than funding of Government Capital Formation. If these transfers when on-lent are used for capital formation that would be regarded (in NZSNA terms) as private sector, not Government, capital formation.
- (ii) For the same reason all capital assistance to the private sector, no matter whether as advance, loan, equity or participation in joint-ventures should be excluded.

The extent of assistance for on-lending and to the private sector is shown in Table 10a (columns 4 and 5): it is now by far the major part of government's capital finance assistance programme. This points to an

---

31 For a non-technical description see: David A. Preston Government Accounting in New Zealand (Wellington: Government Printer, 1980); and Financial Management (Wellington: Treasury 1981).

interesting feature - government's growing significance as a financial intermediary. Its advances of monies for on-lending have grown from about \$75 million in 1971/2 to \$411 million in 1981 - an annual compound growth rate of about 21 percent<sup>32</sup>.

An attempt to sort out government's financial capital assistance along these lines is made in the following tables (set 10). As a first step, tables 10(a) and (b) show the amount of capital finance channelled to the various types of entities. The question of whether those funds were made available at a concessional service or amortisation cost or not is put aside for the moment.

Apart from the self-funding welfare organisations with the non-market sector, all non-market capital formation is financed from funds drawn from the Public Account.<sup>33</sup> The detail in the tables accordingly refers mainly to market capital formation.

Broadly these tables show:

- (i) that the proportion of government's market capital formation which is so funded has been variable. However, on average, 66 percent of funds was drawn from the Public Account (Table 10b), - 53 percent for the public corporations and 76 percent for the unincorporated enterprises; and
- (ii) that about 81 percent of all government capital formation - market plus non-market - is financed from funds drawn from the Public Account (Table 10d).

Whether the service charges on all these advances were a charge on the public purse is unclear, however. It is known some definitely were - those advances made to the ordinary administrative departments within the Public Account. But for most of government's market sector, information is skimpy, especially on whether the recipients met amortisation charges. A further complication arises if - as is done from time to time - the capital liability to government is waived or the capital structure of an entity reorganised (as has just been done for N.Z. Railways).

One way round this lack of information might be to ignore amortisation and suppose the recipients never repay capital; they simply in effect roll over the loans. If this were so - as it is for much of what government lends - the capital finance assistance to the market sector could be regarded as a charge on the public purse if the service charge is concessional.<sup>34</sup>

---

32 This is slightly slower than the 23 percent for government's monetary benefit and National Superannuation transfers.

33 Hospital boards raise their own loans. Nevertheless, the service charge on such loans is borne by the Public Account. So in that sense hospital board capital formation is ultimately funded from the Public Account.

34 In practice, government trading organisations often received subsidies about equal to their loan interest payments into the Consolidated Account. But that fact can, and should be, ignored here; the subsidies have already been counted as part of publicly financed current activity. They should not now be double counted.

In practice, however, this relaxation is still not all that helpful. We simply do not have enough information to assess whether interest charged is concessional - that is, whether the charge covers Treasury's cost of borrowing and administering the loans. All we know is that most government trading organisations are charged interest on their loans. So these could perhaps be regarded - at least marginally - as not a charge on the public purse. But that still leaves considerable room for uncertainty. There remain the advances, grants and equity payments given at no contractual service charge. Possibly all we could safely do is to show the extent of this uncertainty.

This is done in Table 10c. On average 38 percent of government capital formation was clearly a charge on the public purse, 19 percent was self-funded, and the service charges on 43 percent were in the uncertain class.

Finally, in table 10d a summary of financing of both current activity and capital formation is shown.

TABLE 10a:

## CAPITAL FINANCE ASSISTANCE (\$m)

| March Year | To Unincorporated Trading Organisations | To Public Corporations and Companies <sup>1</sup> | To Government Financial Intermediaries <sup>2</sup> | To Offshore Mining Co. and Private Sector <sup>3</sup> | To Government Corporations for On-Lending <sup>4</sup> |
|------------|---|---|---|--|--|
|            | (1)                                     | (2)   | (3)   | (4)  | (5)  |
| 1971/72    | 101.6                                   | 29.5  | 2.9   |  | 75.0   |
| 1972/73    | 138.5                                   | 19.4  | -   |  | 85.1   |
| 1973/74    | 125.4                                   | 34.3  | -   | -  | 85.1   |
| 1974/75    | 232.6                                   | 93.2  | -   | 39.0   | 81.7   |
| 1975/76    | 408.5                                   | 124.7   | -   | 18.3   | 196.5  |
| 1976/77    | 361.7                                   | 87.2  | -   | 80.7   | 307.1  |
| 1977/78    | 408.7                                   | 64.4  | 10.0  | 77.0   | 208.0  |
| 1978/79    | 410.6                                   | 67.5  | -   | 116.0  | 284.0  |
| 1979/80    | 240.5                                   | 87.2  | -   | -  | 372.3  |
| 1980/81    | 214.9                                   | 56.0  | 10.0  | 2.9  | 411.2  |

SOURCE: PUBLIC ACCOUNTS; B1 (Pt. I) and B7 (Pt. I).

Notes: (1) Does not include advances for on-lending to Housing Corporation or financial intermediaries. For information on Government's Investments as at 31 March see B1(Pt 1).

(2) These are purchase of shares in, or advances to, the Bank of New Zealand and the Development Finance Corporation.

(3) Offshore Mining Co. is a public corporation in NZSNA terms, but is shown separately here because it is impossible to determine whether assistance given - which is in very large amounts - is for capital or current operations. Almost all of this column is Offshore Mining Co. advances; only \$2.9m in 1980/81 is to the private sector.

(4) Principally to the Rural Bank, Housing Corporation and Development Finance Corporation.

TABLE 10b

## CAPITAL FINANCE ASSISTANCE AS A PERCENTAGE OF CAPITAL FORMATION

| March Year  | Unincorporated trading organisations: <sup>1</sup> | Public Corporations <sup>1</sup> assistance as share capital | Government market production group (total) |
|-------------|--|--|--|
|             | (1)  | (2)  | (3)  |
| 1971/72     | 67   | 175  | 69   |
| 1972/73     | 76   | 44   | 64   |
| 1973/74     | 71   | 115  | 76   |
| 1974/75     | 87   | 68   | 75   |
| 1975/76     | 101  | 56   | 79   |
| 1976/77     | 86   | 50   | 70   |
| 1977/78     | 90   | 29   | 64   |
| 1978/79     | 83   | 32   | 62   |
| 1979/80     | 53   | 46   | 56   |
| 1980/81     | 48   | 45   | 42   |
| <u>Mean</u> |  |  |  |
| 1972-1981   | 76   | 53   | 66   |

Note 1: Capital assistance from Loans Account may not always be used for investment, nor, if used, used in the same year as it is granted. Accordingly, assistance may sometimes be greater than that year's capital formation (as in 1971/2 and 1973/4 for Public Corporations).



TABLE 10c:

## FUNDING OF CENTRAL GOVERNMENT CAPITAL FORMATION

| Year     | Totally Public Account |        | FINANCED FROM LOAN ACCOUNT <sup>1</sup> |        |  |        | Totally <sup>2</sup> from own revenue sources |        |
|----------|------------------------|--------|---|--------|--|--------|---|--------|
|          |                        |        | To Public Corporations                  |        | To unincorporated Public Trading Organisations |        |   |        |
|          | (1)                    |        | (2)                                     |        | (3)  |        | (4)   |        |
|          | \$m                    | %      | \$m                                     | %      | \$m  | %      | \$m   |        |
| 1971/72  | 144.2                  | (44.7) | 29.5                                    | (9.2)  | 101.6  | (31.6) | 46.7  | (14.5) |
| 1972/73  | 190.9                  | (44.8) | 19.4                                    | (4.5)  | 138.5  | (37.2) | 57.4  | (13.5) |
| 1973/74  | 184.7                  | (42.5) | 72.2                                    | (16.6) | 125.4  | (28.8) | 52.7  | (12.1) |
| 1974/75  | 242.7                  | (36.9) | 93.2                                    | (14.2) | 232.6  | (35.4) | 288.8   | (13.5) |
| 1975/76  | 316.9                  | (33.0) | 124.7                                   | (13.0) | 408.5  | (42.5) | 109.9   | (11.5) |
| 1976/77  | 305.6                  | (32.9) | 88.7                                    | (9.5)  | 361.7  | (30.9) | 172.3   | (18.5) |
| 1977/78* | 336.0                  | (32.2) | 64.4                                    | (6.1)  | 408.7  | (39.2) | 234.9   | (21.2) |
| 1978/79* | 358.2                  | (32.3) | 67.51                                   | (6.1)  | 410.6  | (37.1) | 269.7   | (24.6) |
| 1979/80* | 352.9                  | (38.2) | 87.2                                    | (9.5)  | 240.5  | (26.0) | 242.4   | (24.3) |
| 1980/81* | 402.1                  | (39.0) | 56.0                                    | (5.4)  | 214.0  | (20.8) | 358.9   | (34.8) |

Average

1972-1981

38.0

9.4

32.9

19.0

Source: Derived from SNA data base and Public Accounts (B.7(PT1) and B1.(PT1)).

\* Provisional

Note 1:

Included here is only part of the capital assistance given through the loan account. Specifically excluded are:

- All capital assistance to private sector firms, including the Offshore Mining Company, and to government's financial intermediaries.
- All capital advances for on-lending purposes such as those to the Housing Corporation. But advances to the corporation for house construction are included.
- All capital assistance to ordinary departments (such as the State Services Commission) since these are part of the capital totally funded from within the Public Account as in column 1. Hospital Board loans are included here as totally Public Account.

So we are here concerned only with assistance to unincorporated trading organisations and wholly owned public corporations or companies. For that group all forms of capital assistance - whether as equity capital, advance, loan or equipment purchased on credit - are included.

Whether that assistance is always used for capital formation, and in the same year as it is granted, is not known.

Note 2:

This column is the sum of two parts. One is the capital formation of the self-funded government organisations - such as the Earthquake and War Damages Commission and the Accident Compensation Corporation. This part is a direct estimate. The other part is a residual estimate; it is that part of the capital formation of the public corporations and unincorporated trading organisations not drawing on funds from Loan Account.

So, for example, when the Post Office has raised its prices and increased its operating surpluses, it can finance more of its capital from its own resources, drawing less on advances from Loan Account. This has happened in the last few years (since 1978), thus increasing the proportion of government's capital formation financed from 'own' revenue sources - from user payments rather than general government revenue and borrowing.

TABLE 10d

## SUMMARY OF FUNDING OF WHAT IS PROVIDED

| March<br>Year | Current Activity                                  |   | Capital Formation  |   |   |
|---------------|---|---|--|---|---|
|               | Total Goods<br>Services<br>and Transfers<br>\$(m) | Percentage<br>Funded From<br>Public Account | Total<br>Government Sector<br>Capital Formation<br>\$(m) | Percentage<br>Funded From<br>Public Account | Percentage Total<br>Activity Funded<br>From Public<br>Account |
|               | (1)   | (2)   | (3)  | (4)   | (5)   |
| 1971/72       | 2,619   | 77  | 322  | 85  | 78  |
| 1972/73       | -   | -   | 426  | 86  | -   |
| 1973/74       | 3,381   | 77  | 435  | 88  | 78  |
| 1974/75       | -   | -   | 657  | 87  | -   |
| 1975/76       | 5,171   | 84  | 960  | 88  | 86  |
| 1976/77       | 5,865   | 79  | 929  | 81  | 79  |
| 1977/78*      | 7,383   | 80  | 1,044  | 77  | 80  |
| 1978/79*      | 8,683   | 81  | 1,106  | 75  | 80  |
| 1979/80*      | 10,097  | 81  | 923  | 75  | 80  |
| 1980/81*      | 11,962  |   | 1,031  | 65  |   |

\* Provisional

|         |    |    |    |
|---------|----|----|----|
| Average | 80 | 81 | 80 |
| 1971/2  |    |    |    |
| 1980/81 |    |    |    |

Source: Derived from tables 8a, 10a and 10c

## SECTION 11

11.

PRIVATISATION

The material so far gathered can give some help in assessing the merits of the call for more privatisation. What is sought is not always clear, but at least two elements are commonly found.

One aim is less government intervention. Here some express the call for privatisation simply as "remove regulatory and petty bureaucratic controls". Others see the issues in constitutional terms; they worry about what they see as the pervasiveness and excessive use of unconstrained centralised executive power.<sup>35</sup> Some see the issue in terms of the various crowding-out arguments. Still others see the issue in terms of the alleged superiority of private enterprise over bureaucratic control in providing solutions to the economic problems of growth and inflation. But in one way or another, many of those who are concerned with this aspect of privatisation focus on the size of government relative to the private sector - their concern is with "Big Government".

A taxonomic study, such as this, can say little about all these facets of privatisation. All it can do is to point out what evidence there is for any change in the size of government's share of national resource use in recent years. Available evidence points to no real change; government has not got markedly bigger in recent years. It is no bigger relatively now than it was in the 1960s or early 1970s. So it would seem that if government's economic involvement is too big now, then -

Either: it is has always been too big in the post-war period;

Or: there have been some changes in economic circumstances within which government is operating coupled perhaps with some change in the nature, as opposed to the extent, of what government is doing - changes which have altered the perception of government's size and/or its impact for the more or less constant relative size.

Certainly the relative price of what government provided increased in 1970s. But this was not unique; it applied also to all private sector products of relatively labour intensive goods and services. The price of labour rose relative to the price of other production inputs and to productivity over the period.<sup>36</sup> As a result we are now paying more, relatively, for all such goods and services.

---

35 See Geoffrey Palmer Unbridled Power? (Wellington: Oxford University Press, 1979).

36 See "Unemployment : Causes and Policy Options" (Wellington: Reserve Bank of New Zealand Bulletin, June 1982 pp 199 - 203).

The nature of that provision has also altered. There has been a major change in the distributional impacts of taxation, transfer payments and tax expenditures in the 1970s. Awareness and concern about these distributional changes have probably been heightened by the other major change of 1970s. New Zealand has suffered a low growth, under utilisation of private production potential, high inflation and growing unemployment. The shift in personal income distribution has accordingly been felt most - and more often than in the 1950s and 60s - by those drawing income from unsubsidised production, both within the market and the non-market sector. Distribution has now become an issue.

2. Others call for privatisation, not so much because of concern about the size of government, or even with the crowding-out issues, as with cost effectiveness and efficiency. What is at issue is the question of whether public bureaucratic forms of organisation are the most cost-efficient organisational structures for the provision of goods and services. Those holding this view claim cost-effectiveness and efficiency would be enhanced if the provision of public sector goods and services were subject to the budget constraints and the cost minimisation incentives inherent in the profit motive and competition. They see several ways in which this might be done or simulated. Among these are:

- (i) Privatisation by purchase from the market - that is, government would continue to finance and provide, but not itself produce. The purchases would include both intermediate goods and final goods; whether purchased under tender, or purchased off the market shelf. The basic notion here seems to be that private sector production is both more efficient and more cost-effective than government production. Furthermore, it is a method of provision which leaves open to central government its prerogative of determining the social decision about the amount of resource use to be taken up in public sector provision.
- (ii) Privatisation by making government administration and organisational structures more market-like. There are two strands to this.
  - (a) As a necessary prerequisite, improve decision-makers' information flows and the basis on which government accounts for costs;<sup>37</sup> and, where appropriate move towards the public corporation, rather than the unincorporated organisation, as organisation from providing and producing the appropriate public sector good;
  - (b) In its extreme variation, sell some government-owned enterprises to the private sector, e.g. the Government Life Office, the Bank of New Zealand, the New Zealand Post Office.

The merits of such claims and suggestions cannot be evaluated within a broad study of this sort. They can be determined only by individual case study. Nevertheless, the broad study, while not providing a definitive answer can give a general indication of the likely relevance of and scope for consideration of these types of privatisation.

The potential for privatisation by purchases for the market would depend on the extent to which the private sector does or can produce the type of goods or service provided by the public sector, and on the extent to which public production is and can be linked to private production through its intermediate-good linkages.

As Table 6a indicates there is no private sector market output counterpart for much of what government currently provides; nor is there any substantial input linkage (see Table 5).

Some 62% of what government provides is transfer payments and collective goods for which there is no or very little market production counterpart. A further 19% - individual and social welfare - does in some degree have a market counterpart. About one fifth of this type of provision is already purchased as materials or services from the market (See Monthly Abstract of Statistics, September 1981, p116). No doubt the provision could be further privatised<sup>38</sup>; but it must be somewhat doubtful that a market counterpart exists for our complete health or education system.<sup>39</sup> So perhaps a third of the current provision of individual and social welfare could be further privatised by purchase.

An obvious market sector counterpart exists for the 19% of what government provides as marketable goods and services. But as this is already market output, it cannot be further privatised by purchase; only by change in organisational structure or by selling-off, although the relevant production processes could perhaps draw more on intermediate good purchases.

So on balance, the potential for further privatisation by purchase of current activity is probably no more than 10 percent of what is now provided.

38 Such schemes as the educational voucher system aim to do this. For a discussion on this matter see : E G West Education and the State, A study in Political Economy (London : Institute of Economic Affairs, 1965. 2nd Ed. 1970). and Education - A Framework for Choice (London: Institute of Economic Affairs 1970).

39 Reducing the cost to government and reducing the resource cost to the economy of delivering these services are not of course necessarily the same thing. Schemes which give education or health back to the market may well reduce the amount government spends but not reduce the aggregate real resource cost of the service. The economic rationale for privatisation by purchase is to reduce resource cost and government expenditure not expenditure per se.

40 Since 1974/5 the Ministry of Works has been putting out to contract capital works equivalent to about 12 percent of government's total annual capital formation.

The scope for privatisation by purchase is probably greater for government's capital formation. But even so, the scope may be rather smaller than many seem to suppose. Much of government's capital formation is already - as it has been for a long time - purchased from the market as final goods (including imports) and as work done under contract.<sup>40</sup> Apart from the design and supervisory work done by the Ministry of Works and Development and the Housing Corporation, the only significant direct capital formation done by government is on residential housing and other construction, including electricity transmission and sub-stations. Almost all of that is done by or for unincorporated trading organisations.

As already shown in table 9c, housing construction is only 5 percent of government's direct capital formation. All of the construction done by the Ministry of Works construction teams, New Zealand Railways and the Ministry of Energy adds a further 24 percent (see tables 9a and 9e) to give a combined total of about 30 percent. Some part of that is already privatised and a further 12 of the 30 percent is put out to contract by the Ministry of Works. It is accordingly difficult on current information to see how more than 20 percent of government's capital formation could possibly be further privatised by purchase; and perhaps no more than half of this could be. So, at most, perhaps 20 percent of capital formation, and 10 percent of government's current activity could be further privatised. In all, this would be about 12 percent of total government activity (on average for the 1970s).

What is the potential for savings in this? It depends on how efficient the private market sector producers of the goods are relative to the government producer. Suppose, for illustrative purposes, the private market sector were 25 percent more efficient than government. It could then produce this 12 percent of government's activity at 80 percent of the cost of government's production. If so, the potential 'saving' is equivalent to 2.4 percent of government's total expenditure (including tax expenditures); or about \$300 million in 1981 terms.

Proposal for privatisation by change in administrative structure and organisational form are really concerned with efficiency in resource use, not with organisational form or ownership as an end in itself. Some, however, believe that organisational form necessarily (or at least potentially) affects efficiency in resource use. We shall not take up here the question of whether such a belief is well-founded; that is done elsewhere<sup>41</sup>. Here the focus is on how much scope exists for such change.

There is little further scope. Even if all existing unincorporated trading organisations (including New Zealand Railways) were to be so converted, that would cover no more than 12 percent of what government provides, although all their capital formation, currently some 42 percent of total government capital formation, would also be included. But even so, the combined total was just 16 percent of government's capital formation and current provision in the 1970s. A large part - although unknown as to precise

---

41 This is one of the issues taken up by J. Johnston and A von Tunzelman The State in Business (Wellington: New Zealand Planning Council, Planning Report No.15 1982).

value - of this is already privatised. So the potential for net change is unlikely to be more than 10 percent.

Privatisation by denationalisation, or selling-off, is sometimes suggested. Government owns and operates public corporations which are self-supporting commercial operations, receiving no explicit subsidy from the public purse, and making annual dividend contributions to the Public Account. Nevertheless, these entities do enable government to provide some part of their outputs as social services at less than production cost to particular regions or persons. To that extent, the profitable areas of operation subsidise these social services; the dividend paid into the Public Account is accordingly less than otherwise, implying that the subsidy ultimately comes from the Public Account. An example, where this is said to occur is the Bank of New Zealand's extensive branch network throughout the small rural communities. On average for the 1970s, all public sector corporations provided about 5 percent of public sector provision.

Some see public ownership as a most inefficient way of providing social services. They hold that the resources would be more efficiently used if the corporations were able to run all their operations on a pure profit, user-pays basis, with the social service element covered by a direct government purchase from the producer or subsidy to the producer or user. But even if this were shown to be true, it does not necessitate selling-off: the basic issue is efficiency in resource use, not ownership. What is sought could therefore be done without a change of ownership. Privatisation by denationalisation is not good economic sense unless there is some inherent reason why private ownership leads to better resource use and cost efficiency than can be had from public enterprises.

But even if such an inherent difference exists, and private sector buyers could be found for all existing public corporations, the potential for reducing government expenditure is small, since only 5 percent of what government provides is produced by public corporations. The implicit subsidy due to special social service funding must accordingly be relatively very small.

Potentially the greatest scope for improved efficiency lies in improved information, accounting methods and cost-efficiency applications being applied to the 80 percent of government's activity carried out in its non-market segment. A net increase in the cost-efficiency in this area of 4.0 percent would reduce the cost of total government provision (market and non-market) by about 3 percent (or \$380 million in 1981 terms).<sup>42</sup>

Perhaps we can put all the above possibilities in perspective in the following way. Suppose one wanted to save 3 percent in the cost of government's provision, both market and non-market (or about \$350 million in 1980 terms), each of the alternatives could do this if:

- (i) the new administrative and accounting methods were able to raise the net cost-efficiency of non-market activity by about 4.0 percent;

---

<sup>42</sup> Cost-efficiency is not just a matter of efficiency in production resource use. The least-cost method of achieving non-market or social objectives requires, for example, that unnecessary expenditures arising from poorly targetted benefit payments or tax expenditures be eliminated.



- (ii) the private sector production of the activities being privatised were at least 33 1/3 percent more efficient than government's production;
- (iii) public corporations were at least 42 percent more efficient than unincorporated trading organisations;
- (iv) private ownership of all public corporations (other than the Reserve Bank) were at least inherently 100 percent more efficient than public ownership.

So overall, the potential for gain from privatisation is not large. The potential for saving lies mostly in applying known cost-efficiency and accounting procedures to government's ordinary administrative departments and to the various boards and councils.

## SECTION 12

CONCLUSION

12.

The complete set of data tables shows the following main characteristics of public sector involvement in the New Zealand economy.

- (i) Government is a major producer, in both the market and the non-market segments of the economy. Its contribution to G.D.P. rose from 14.5 percent in 1960 to around 21 percent by 1980 - about 11 percent from non-market and 10 percent from market output. However, since 1960 the relative growth in production was in government's non-market output, up from 6 to 11 percent.
- (ii) Government is much more significant as a provider of income than as a producer. Some 35 percent of household income was provided by government in 1980, about three quarters of that through government non-market production and transfer activity.
- (iii) The relative size of the financial resources taken by government in taxation increased in the 1970s, although it has been more or less steady since 1976. By 1981 government was taking (in total taxation) 5 percent more of household income than in 1968. This was not a large increase; but within that increase, the personal income tax rate increased while all other forms of taxation either remained constant or fell as a proportion of household income.
- (iv) The relative size of government's explicit expenditure (i.e. excluding tax expenditure) as a proportion of National Expenditure increased substantially after 1969/70, rising from 25.8 for the late 1960s to 39.4 percent by 1981. This growth reflects two things. One is the growth in transfer of all kinds. Social assistance transfers, debt service interest payments and government's financial capital transfers for on-lending (through the Housing Corporation, the Rural Bank and Development Finance Corporation) each grew at 19 percent per annum (compound) or more over the 1970s. This was much faster than the 15 percent per annum (compound) growth in National Expenditure.

The other influence was a rise in wage rates. Wage rates rose relative to other production costs throughout the 1970s. This pushed up the unit production cost of all labour intensive production. For Government service production the increase was particularly adverse relative to the whole of the private sector because services are inherently more labour intensive than manufacturing. This pushed up government's production expenditure relative to private sector expenditure.

- (v) Underlying these changes in expenditure and taxation has been no significant change in the relative size (extent) of government's direct real resource claim or use in the 1970s. It still continues to employ about 20 percent of the work force, as against 19 percent in the 1960s.

- (vi) Only about one half of government's involvement is directly in any organised market for labour or goods. This reflects the enormous value of government transfer payments, tax expenditures and financial capital assistance transfers.
- (vii) Central government's involvement is not well-characterised only as the provider of health and education and/or collective goods (defence, law and order and administration). On average, these goods and services were about 31 percent of what government provided in the 1970s. Accordingly, government is perhaps better characterised as a provider of transfer payments (including tax expenditures) and as a financial intermediary raising borrowed monies at home and abroad to on-lend (or, in the case of foreign exchange, sell) to its own production entities and financial intermediaries (including, in the case of foreign exchange, the Reserve Bank) and from time to time, private sector companies. Together these two transfer activities encompassed about 50 percent of what government provided in the 1970s.
- (viii) The nature and extent of Government's involvement in the financial capital market changed significantly in the 1970s, especially after 1976. As the relative and absolute size of the budget deficit changed, Government's borrowing requirements increased. It then became more active in marketing its securities in direct competition for funds. Government has now emerged as a direct borrower of small saver's funds (as with Inflation Adjusted Savings Bonds for example). In the 1960s and early 1970s it had drawn largely on wholesalers of borrowed money - the banks and non banking financial institutions - or from the Reserve Bank.
- (ix) There was remarkable stability, over the 1970s, in the composition of government activity in terms of the provision of various broad categories of goods and services and transfers (including tax expenditures).
- (x) The relative provision of collective goods, of individual and economic welfare and of marketable goods has each remained more-or-less constant, summing to about 50 percent of provision on average for the 1970s. Transfers of one kind or other made up the balance.
- (xi) The major change in expenditure patterns in the 1970s was in the composition of (broadly defined) transfer payments. Explicit transfer payments of all kinds - social assistance, debt service payments and financial capital transfers all grew relative to tax expenditures.

A most significant aspect of what these tables show is that the public debate emphasis on the overall growth of the social welfare and social assistance programme may have been somewhat misplaced. When taken together the combined total of the provision of Individual and Economic Welfare, explicit social assistance transfers and personal tax expenditures, has not increased relative to other government provision (collective and marketable goods). So in that sense the social welfare programme remained relatively constant in the latter half of the 1970s. Within this total, however, explicit social assistance transfers rose while personal tax expenditures fell.

The rise in explicit social assistance transfers is then primarily a compositional change rather than a change in the overall size of government provision: it is a change in the distribution of government's personal social assistance transfer. What had in the early 1970s been done less overtly for a wide range of different individuals and classes of persons through tax expenditures has steadily given way to a more explicit, narrowly directed social assistance - from the many toward the aged. Most of that increase stemmed from discretionary changes in pension qualifications. The upper age limit and term of residence in New Zealand qualifications were both lowered, and the rate of benefit was substantially raised in the 1970s.<sup>43</sup>

This suggests views about tax rate increases may have to be revised. It would be a mistake to continue to suppose personal income tax rates have risen to pay for an overall addition to the social welfare and assistance programme. First, because the social welfare programme has not grown relatively in the 1970s; and secondly, because it is not valid to assign personal tax revenue to any particular expenditure item unless all expenditure is financed from personal income taxation. That has never been so in the last twenty years. We can nevertheless still say that personal tax rates have risen (in part) because of<sup>44</sup> the switch in the distribution of the more-or-less constant overall programme away from specific and general tax rebates and exemptions towards explicit, specific monetary benefits. In part, the switch is the result of differences in the degree to which the two general classes of social assistance transfer are indexed. Monetary benefits were and remain indexed in varying degree to wage or price changes, whereas personal tax exemptions rebates and tax brackets were not indexed. But most of the switch stems from discretionary changes in pension qualifications and benefit rates.

---

43 New Zealand (OECD: Economic Survey, 1982. pp.46-47)

44 This is not intended to imply any need for taxes to rise in order to pay for the switch in the distribution of the social welfare programme. Rather, "because of" is intended to be read as saying: as a consequence of the switch personal tax rates rose. The switch increases the ratio of personal taxation to income for two reasons:

- (i) one is because income which would otherwise be exempt is now taxed; and
- (ii) the other is because the monetary benefits are (if paid as national superannuation or unemployment benefits) taxed.

So when the otherwise exempt income is taxed, the ratio of aggregate tax to primary income (GDP) rises since the existing primary income level is unchanged by that transaction. That ratio is further increased if the tax revenue is paid out as a taxable monetary benefit. We then have double taxation of some part of the existing primary income (GDP).

A similar outcome obtains for taxation as a proportion of household income, even though the taxable monetary benefit increases gross household income. In this case the average tax rate on that increased level for gross household income will rise if the sum of the marginal tax rate on the otherwise exempt income plus the marginal rate paid by the benefit recipients is greater than the average tax rate that would have obtained on household income had there been no switch. This was so over the 1970s.

The implications of the relatively high proportion of activity provided through transfers, coupled with the relative stability of the composition of non-transfer expenditures (both capital and current goods) need stress. These are twofold.

- (i) There may be relatively little room for further privatisation (or more-market orientation) of government activity. The issue of how government can best organise itself, and its accounting and cost-efficiency evaluation systems, to provide what it currently provides at least cost, may well be more significant than the question of what parts of government can be most usefully given back to or put through the private-market sector. As shown in Section 11, we should not expect large savings from privatisation or from cost-efficiency measures. In its smallness, this potential for gain from a policy change reflects the basic nature of New Zealand's current economic problem: there appears to be no major single dramatic thing that can be done, or done quickly, to improve our lot. There is only a host of small things, each relatively insignificant when taken alone, but collectively potentially dramatic. Accordingly, the small things should be done. One of those necessary smaller things is to enhance the cost-efficiency of what government currently does - and not to expect too much from doing so.
- (ii) That the economic impact of government involvement will have been more in the terms and conditions governing activity, the effects on relative prices, perceptions and behaviour - more in the indicative and conditional sphere - than in terms of any change in its direct relative contribution to GDP or aggregate expenditure. The impact lies in the subtle pervasiveness of government influence rather than in any change in its 'size'; and in the consequences of the changes in income distribution which stem from government provision of social welfare assistance (including tax expenditures), from changes in the incidence of taxation, and from its attempts to both direct and modify the market and its effects (through various tax expenditures, financial transfers of one kind or another, and direct controls).

APPENDIX 1

NEW ZEALAND STANDARD INSTITUTIONAL SECTOR CLASSIFICATION

Two tables are set out below. The first shows the New Zealand Standard Institutional Sector classification as used in the New Zealand System of National Accounts. The second shows, in some detail, how the Central Government Sector - what we have called the Public Sector - fits into this classification. Both tables are drawn from the Department of Statistics, monthly abstract of statistics, September 1981.

1.00 Financial Intermediaries

2.00 Insurance and Pension Funds

3.00 Government Enterprises

4.00 Private Enterprises

5.00 Non-profit Institutions

6.00 Other

7.00 Unincorporated Government Trading Organisations

8.00 Government-owned and/or controlled Corporations

9.00 Government-controlled Enterprises

10.00 Government-controlled Enterprises

11.00 Government-controlled Enterprises

12.00 Government-controlled Enterprises

13.00 Government-controlled Enterprises

14.00 Government-controlled Enterprises

15.00 Government-controlled Enterprises

16.00 Government-controlled Enterprises

17.00 Government-controlled Enterprises

18.00 Government-controlled Enterprises

19.00 Government-controlled Enterprises

20.00 Government-controlled Enterprises

21.00 Government-controlled Enterprises

22.00 Government-controlled Enterprises

23.00 Government-controlled Enterprises

24.00 Government-controlled Enterprises

25.00 Government-controlled Enterprises

26.00 Government-controlled Enterprises

27.00 Government-controlled Enterprises

28.00 Government-controlled Enterprises

29.00 Government-controlled Enterprises

30.00 Government-controlled Enterprises

31.00 Government-controlled Enterprises

32.00 Government-controlled Enterprises

33.00 Government-controlled Enterprises

34.00 Government-controlled Enterprises

35.00 Government-controlled Enterprises

36.00 Government-controlled Enterprises

37.00 Government-controlled Enterprises

38.00 Government-controlled Enterprises

39.00 Government-controlled Enterprises

40.00 Government-controlled Enterprises

41.00 Government-controlled Enterprises

42.00 Government-controlled Enterprises

43.00 Government-controlled Enterprises

44.00 Government-controlled Enterprises

45.00 Government-controlled Enterprises

46.00 Government-controlled Enterprises

47.00 Government-controlled Enterprises

48.00 Government-controlled Enterprises

49.00 Government-controlled Enterprises

50.00 Government-controlled Enterprises

51.00 Government-controlled Enterprises

52.00 Government-controlled Enterprises

53.00 Government-controlled Enterprises

54.00 Government-controlled Enterprises

55.00 Government-controlled Enterprises

56.00 Government-controlled Enterprises

57.00 Government-controlled Enterprises

58.00 Government-controlled Enterprises

59.00 Government-controlled Enterprises

60.00 Government-controlled Enterprises

61.00 Government-controlled Enterprises

62.00 Government-controlled Enterprises

63.00 Government-controlled Enterprises

64.00 Government-controlled Enterprises

65.00 Government-controlled Enterprises

66.00 Government-controlled Enterprises

67.00 Government-controlled Enterprises

68.00 Government-controlled Enterprises

69.00 Government-controlled Enterprises

70.00 Government-controlled Enterprises

71.00 Government-controlled Enterprises

72.00 Government-controlled Enterprises

73.00 Government-controlled Enterprises

74.00 Government-controlled Enterprises

75.00 Government-controlled Enterprises

76.00 Government-controlled Enterprises

77.00 Government-controlled Enterprises

78.00 Government-controlled Enterprises

79.00 Government-controlled Enterprises

80.00 Government-controlled Enterprises

81.00 Government-controlled Enterprises

82.00 Government-controlled Enterprises

83.00 Government-controlled Enterprises

84.00 Government-controlled Enterprises

85.00 Government-controlled Enterprises

86.00 Government-controlled Enterprises

87.00 Government-controlled Enterprises

88.00 Government-controlled Enterprises

89.00 Government-controlled Enterprises

90.00 Government-controlled Enterprises

91.00 Government-controlled Enterprises

92.00 Government-controlled Enterprises

93.00 Government-controlled Enterprises

94.00 Government-controlled Enterprises

95.00 Government-controlled Enterprises

96.00 Government-controlled Enterprises

97.00 Government-controlled Enterprises

98.00 Government-controlled Enterprises

99.00 Government-controlled Enterprises

100.00 Government-controlled Enterprises

APPENDIX 1

NEW ZEALAND STANDARD INSTITUTIONAL SECTOR CLASSIFICATION

1.00 Producer Enterprises

1.10 Private

1.11 Corporate

1.12 Non-corporate

1.20 Producer Boards

1.30 Government Enterprises

1.31 Central Government

Government owned and/or Controlled Market producer enterprises. They may be:

(i) Government owned and/or controlled Corporations, or Companies who hold and manage the financial assets and liabilities in addition to the tangible assets of their organisation eg Air New Zealand and Broadcasting Corporation of New Zealand.

(ii) Unincorporated Government Trading Organisations which sell most of the goods and services they produce to the public, but may not necessarily control or manage the financial assets and liabilities of the organisation. These organisations operate either inside the Public Account (eg Lands and Survey farms and NZ Forest Service Production and Sawmills) or outside the Public Account (eg Railways and Electricity Division of Ministry of Energy).

1.32 Local Government Enterprises

2.00 Financial Intermediaries

2.10 Central Bank

2.20 Trading Banks

2.21 Central Government

2.22 Private

2.30 Insurance and Pension Funds

2.31 Central Government

2.37 Local Government

2.38 Private



2.40 Other Financial Intermediaries

- 2.41 Central Government
- 2.42 Local Government
- 2.43 Private

3.00 Central Government

3.10 Central Government

3.11 Central Government (excluding Funded Social Security Schemes)

Central Government Organisations classified to Section 3.11 have establishments which are either:

- (i) Non market orientated Goods and Services (production Group 22). These are goods and services provided by government and because of their nature are not normally sold on the market. They may be collective or regulatory (eg Defence, Police and Lighthouses) or services provided by reason of Government policy (eg Hospitals and Education).

or

- (ii) Market orientated Goods and Services. (Production Groups 1.21). These establishments are included in Section 3.11 because while they have similar outputs to those market establishments in Sections 1 and 2, they exist mainly to serve Government organisations and do not trade actually in the market.

3.12 Funded Social Security Schemes

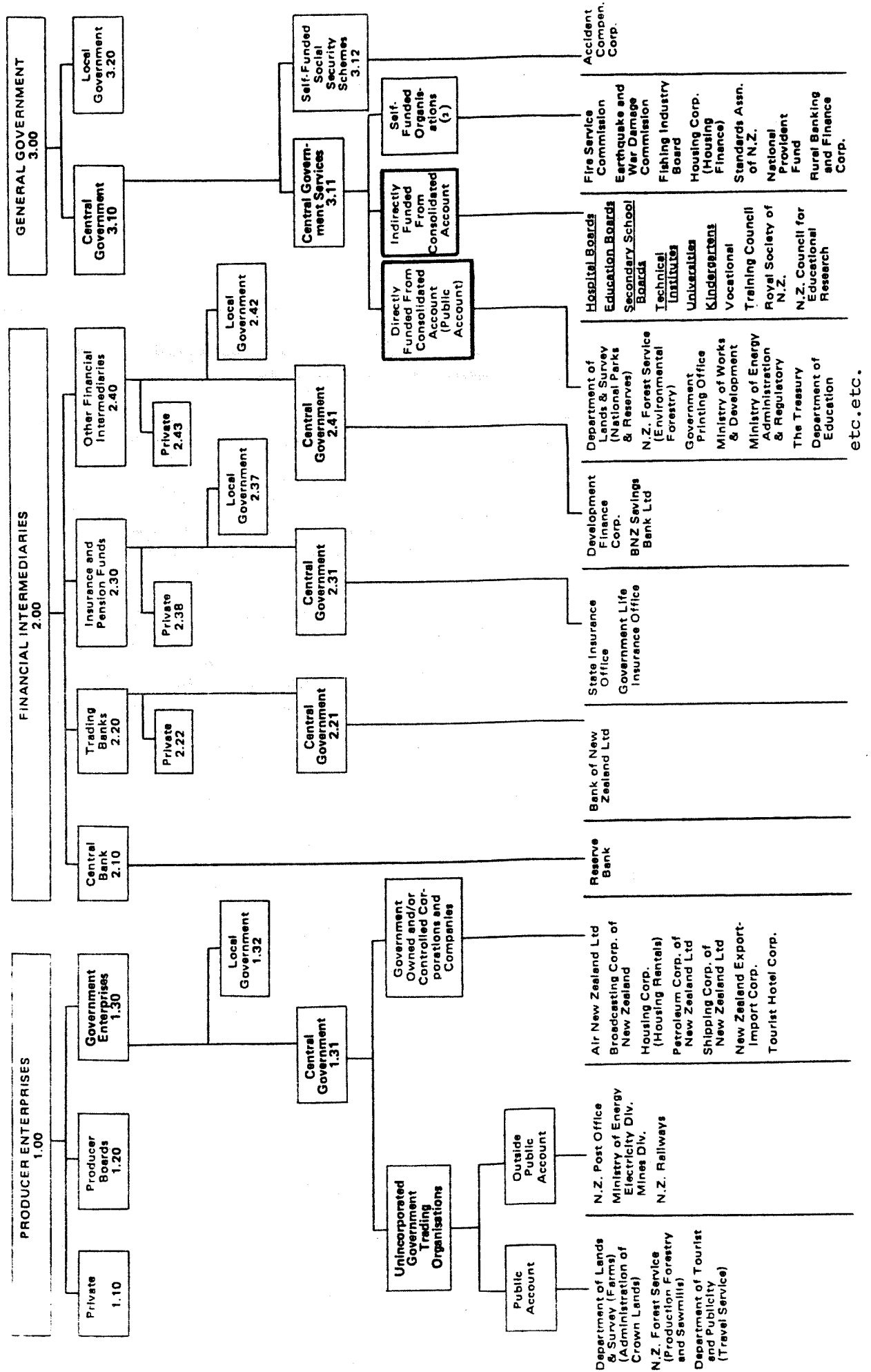
3.20 Local Government

4.00 Private Non-Profit Organisations Serving Households

5.00 Households

6.00 Rest of the World

APPENDIX 1 NEW ZEALAND STANDARD INSTITUTIONAL SECTOR CLASSIFICATION - CENTRAL GOVERNMENT SECTOR AT 31 MARCH, 1980



(1)

APPENDIX 2

NEW ZEALAND SYSTEM OF NATIONAL ACCOUNTS

Set out below in the following order, are:-

- i) The New Zealand system of National Accounts, production group classification;
- ii) Central Government service sector production group classification - this is Government's non-market production sector; and
- iii) a detailed list, by non-market or market production classification, of the whole population of central government sector organisations covered by this study.

## APPENDIX 2

## NEW ZEALAND SYSTEM OF NATIONAL ACCOUNTS - PRODUCTION GROUPS

| PRODUCTION GROUP   | Activities carried out by<br>'Market Oriented'<br>establishments <sup>1</sup> whose<br>characteristic output falls<br>within the following NZ Standard<br>Industrial Classification<br>categories: |
|--|--|
| <b>Market Production Groups</b>  |  |
| 1. Agriculture   | Major Groups 111, 112  |
| 2. Fishing, Hunting  | Major Group 113; Division 13   |
| 3. Forestry and Logging  | Division 12  |
| 4. Mining and Quarrying  | Major Division 2   |
| 5. Manufacture of Food, Beverages and<br>Tobacco   | Division 31  |
| 6. Textiles, Wearing Apparel and Leather<br>Industries   | Division 32  |
| 7. Manufacture of Wood and Wood<br>Products incl. Furniture                                    | Division 33  |
| 8. Manufacture of Paper and Paper<br>Products; Printing and Publishing                         | Division 34  |
| 9. Manufacture of Chemicals and of<br>Chemical petroleum, Coal, Rubber<br>and Plastic Products | Division 35  |
| 10. Manufacture of Non-Metallic Mineral<br>Products except Products of Petroleum<br>and Coal   | Division 36  |
| 11. Basic metal Industries   | Division 37  |
| 12. Manufacture of Fabricated Metal<br>Products, Machinery and Equipment                       | Division 38  |
| 13. Other Manufacturing Industries   | Division 39  |
| 14. Electricity, Gas, Water  | Major Division 4   |
| 15. Construction   | Major Division 5   |
| 16. Trade, Restaurants, Hotels   | Major Division 6   |
| 17. Transport, Storage   | Division 71  |

- |   |   |
|---|---|
| 18. Communication   | Division 72                               |
| 19. Financing, Insurance, Real Estate and Business Services | Major Division 8 Excl.<br>Sub-group 83103 |
| 20. Ownership of Owner-Occupied Dwellings                   | Sub-group 83103                           |
| 21. Community, Social and Personal Services                 | Major Division 9<br>(Excl. Division 91)   |

Non-Market product Groups

- |   |   |
|---|---|
| 22. Central Government Services               | All NZSIC Group 9101, plus any other economic activity from NZSIC 111 to 959 which is provided as a 'Government Service' by a central government organisation. (Institutional Sector 3.10). |
| 23. Local Government Services                 | All NZSIC 9102, plus any other economic activity from NZSIC 11 to 959 which is provided as a 'Government Service' by a local government organisation. (institutional sector 3.20).          |
| 24. Private Non-Profit Services to Households | Those parts of Major Division 9 of NZSIC (Social and Community Services) which are provided by Private Non-Profit Organisations serving households. (Institutional Sector 4.0).             |
| 25. Domestic Services of Households           | Those parts of NZSIC 93 and 953 which are provided by employees who are directly employed by households to obtain a domestic service. (Institutional Sector 5).                             |

---

<sup>1</sup> Market oriented establishments are those which either

(a) produce goods or services for sale on the market at prices that are designed to cover the costs of production.

or

(b) produce similar kinds of goods and services and use similar kinds of inputs and production processes to those in (a) (with the exception of social and community services provided by government or private non-profit organisations serving households coming within NZSIC Major Division 9) even although this production may not be run to make a profit and may not be disposed of in the market.

## APPENDIX 2

## CENTRAL GOVERNMENT SERVICES

## FUNCTION OF GOVERNMENT SUB-GROUPS OF PRODUCTION GROUP 22

| Code | Sub-Group  | Type of Activity Included |
|------|--|---------------------------|
|      | General Administration                                       | NZSIC                     |
| 901  | General Administration                                       | 91011                     |
| 115  | Construction Services  | 50000                     |
| 117  | Transport Services   | 70000                     |
| 119  | Business Services  | 80000                     |
|      | Defence  |                           |
| 902  | Defence  | 91012                     |
|      | Education  |                           |
| 903  | Administration of Education                                  | 91013                     |
| 983  | Education Services   | 9310                      |
|      | Health   |                           |
| 904  | Administration of Health                                     | 91014                     |
| 984  | Health Services  | 9331                      |
|      | Social Welfare, Social Services, Research, etc               |                           |
| 905  | Administration of Social Welfare                             | 91015                     |
| 985  | Social and Recreational Services and Scientific Research     | 9320                      |
|      |  | 9332                      |
|      |  | 9340                      |
|      |  | 9400                      |
|      | Industries   |                           |
| 906  | Administration of Specific Industries and of Labour Services | 91016                     |

CLASSIFICATION OF NON-MARKET ACTIVITIES  
UNDERTAKEN BY THE NZ PUBLIC SECTOR\*

(i) Central Government Activities

Sub-Group 901 Central Govt Admin. n.e.c.

Audit Department  
Crown Law Department  
Customs Department  
Foreign Affairs Department (other than Shipping Services)  
Inland Revenue Department (other than services for ACC and NZSC)  
Internal Affairs Department (other than Wildlife and Cleaning Services)  
Justice Department. General Assembly Library Fund.  
Legislative Department  
Maori Land Court and Titles  
Police Department  
Prime Minister's Department  
Security Intelligence Service  
State Services Commission other than Computer Services  
Statistics Department  
Transport Department - Road Transport Div. except Vehicle Testing  
Treasury other than Govt Super and National Provident Funds  
Trustees of National Library  
Valuation Department  
Works and Development - Leasing of buildings for non-trading Govt  
Departments. Water and Soil Conservation - Admin. & Works & Reserves.

Other Central Government Organisations

Lottery Board of Control  
National Mountain Safety Council  
National Water Safety Council  
N Z Council for Recreation and Sport  
N Z Historic Places Trust  
Q E II Arts Council  
Standards Association of N Z  
War Pension Medical Research Trust Fund

Sub-Group 902 Central Govt Defence (incl. uniformed and civilian personnel)

Defence Department other than Hydrographic Survey and Naval Dockyard.

Sub-Group 903 Central Govt Admin. of Education

Education Department - Admin and Miscellaneous  
Maori Education Foundation  
Maori Purposes Fund Board  
National Council of Adult Education  
Pacific Island Polynesian Education Foundation  
University Grants Committee



Sub-Group 904 Central Govt Admin. of Health

Health Dept other than Hostels, Dental Services, Mental Hospitals, Public and Occupational Health Clinics and Nursing  
Medical research Council  
National Hydatids Council  
National Safety Association

Sub-Group 905 Central Govt Admin. of Social Security & Welfare Service

Accident Compensation Corporation  
Social Welfare Dept - Benefits & pensions & General Administration  
NZ Superannuation Corporation

Sub-Group 906 Central Govt Admin. of Industrial, Commercial, Labour Services etc

Agriculture & Fisheries Dept. other than Flock House, Research and Fisheries  
Energy Resources Department  
Forest Service - Admin. and General  
Labour Department other than Hostels  
Lands and Surveys Department - General Admin.  
Maori Affairs Dept. other than Welfare, Trade Training, Housing, Trust Office, Finance, Land Development & Settlement, & Land Court and Titles.  
Trade and Industry Department  
Transport other than vehicle testing, civil aviation, amrine division, harbours, foreshores and pollution, & Meteorological Service  
Fishing Industry Board  
Licensing Control Commission  
NZ Industrial Design Council  
NZ inventions Development Authority  
NZ Urban Public Passenger Transport Council  
Rural Electricity Reticulation Council  
Technicians Certification Authority  
Testing Laboratory Registration Council of NZ  
Vocational Training Council (incl. its Industrial Training Boards)

Sub-Group 907 Fire Services

Fire Service Commission

Sub-Group 983 Education Services provided as a Govt Service

Flock House (Education Department)  
National Film Library (Education Department)  
Schools (and Vocational Guide while the Education Department)  
Maori Affairs Department - Trade Training  
Education Boards other than Workshops  
School Committees  
National School of Ballet  
Secondary School Boards other than farms and Hostels  
Teachers Training College Councils other than Hostels  
Technical Institutes other than Hostels  
Universities other than farms and hostels  
Kindergartens  
NZ Drama School

Sub-Group 984 Health Services provided as a "Government Service"

Health - Dental Services  
Health - Mental Hospital, Lake Alice  
Health - Public and Occupational Health Clinics and Nursing  
Hospital Boards  
Hospital Boards Assoc.

Sub-Group 985 Research, Social & Related Community Services, and Recreational, Scholarly, Cultural Services provided as a 'Govt Service'

Agriculture and Fisheries Dept - Research on Agriculture, incl. farms, wine making and fishing  
National Library incl. Library School  
Forest Service - Environmental Forestry & Research  
Internal Affairs Department - Wildlife Branch  
Lands & Survey Department - National Parks, Reserves and Domains  
Maori Affairs Department - Welfare  
Maritime Park Boards  
Scientific and Industrial Research Department  
Social Welfare Department - Welfare Work  
Tourist and Publicity Department - Tourist Facilities & Amenities  
Transport Department - Meteorological Services  
Carter Observatory Board  
National Art Gallery, Museum and War Memorial  
National Park Boards  
NZ Council for Educational Research  
Rehabilitation League (NZ) Inc. other than shops  
Royal Society of NZ.

Sub-Group 115 Construction Activity as a Government Service

Works and Development Department - General Administration

Sub-Group 117 Transport Activity as a Government Service

Transport Department - Civil Aviation Division  
Transport Department - Marine Division  
Maintenance of Roads ("Dummy" Govt Service Department)

Sub-Group 119 Agricultural Activity as a Government Service

Water Resources Surveys of Ministry of Works.

CLASSIFICATION, BY PRODUCTION GROUP OF MARKET ACTIVITIES  
UNDERTAKEN BY THE NZ PUBLIC SECTOR

## (i) Central Government Market Activities

| EQUIVALENT<br>PRODUCTION<br>GROUP | TYPE OF<br>ACTIVITY                          | DEPARTMENT OR ORGANISATION<br>WITH SECTIONS IN THIS CODE  |
|-----------------------------------|--|---|
| 1                                 | Agriculture                                  | Lands and Survey Farms;<br>Secondary Schools and university<br>Farms<br>Maori and Island Affairs - Maori<br>Land Development and Settlement<br>other than Finance.  |
| 3                                 | Forestry &<br>Logging                        | Forest Service - Production<br>Forestry   |
| 4                                 | Mining                                       | State Coal Mines<br>Maramarua Coal Mines Ltd<br>Natural Gas Corporation<br>Offshore Mining Ltd  |
| 6                                 | Manufacture of Textiles etc                  | Linen Flax Corporation  |
| 7                                 | Manufacture<br>of Wood, and Wood<br>Products | Forest Service Sawmills; NZR<br>Sawmills<br>Education Boards Workshops  |
| 9                                 | Chemical<br>Coal etc.<br>Products            | Poison Factories of Agriculture<br>Pest Destruction Council<br>Waikato Carbonisation Ltd  |
| 12                                | Metal and<br>Machine<br>Manufacture          | Defence Dept - Naval Dockyard<br>Air NZ and NAC Workshops   |
| 14                                | Electricity,<br>Gas, Water                   | NZ Electricity Dept   |
| 15                                | Construction                                 | NZR - Construction  |
| 16                                | Trade, Restaurants<br>Hotels                 | Government Printing Office -<br>Bookshops and Stationery<br>Health Dept - Dental Nurses<br>Hostels<br>State Insurance - Car Parts Div.<br>Labour Dept Hotels<br>Mines Dept - Coal Depots<br>NZR - Catering and Bookstalls<br>NZ Overseas Trading Corp<br>Rehabilitation League - Shops<br>Secondary & Tertiary Education<br>Institutions - Hostels<br>Tourist Hotel Corporation |
| 17                                | Transport                                    | Foreign Affairs Dept - Islands<br>Shipping<br>NZR Rail, Road and Ferries<br>Tourist Dept - Travel Service<br>Transport Dept - Vehicle<br>Testing Stations<br>- Stewart Island Ferry<br>Air NZ and NAC<br>SAFE Air Container Terminals Ltd<br>NZ Line Ltd  |

EQUIVALENT  
PRODUCTION  
GROUPTYPE OF  
ACTIVITYDEPARTMENT OR ORGANISATION  
WITH SECTIONS IN THIS CODE

---

|    |                |                                  |
|----|----------------|----------------------------------|
| 18 | Communications | Post Office                      |
| 19 | Financing,     | Defence Dept - Hydrographic      |
|    | Insurance      | Survey                           |
|    | Real Estate    | Govt Life Insurance              |
|    | & Business     | Lands & Survey - Farm Finance    |
|    |                | - Leasing of Crown Land          |
|    |                | Maori Affairs - Farm Finance     |
|    |                | - Housing Finance                |
|    |                | Maori Trust Office               |
|    |                | POSB PO Services for other Depts |
|    |                | Public Trust                     |
|    |                | NZR - Housing                    |
|    |                | - Advertising                    |
|    |                | State Insurance                  |
|    |                | Tourist Dept - Information and   |
|    |                | Publicity Services               |
|    |                | Treasury - Operation of          |
|    |                | Superannuation Funds             |
|    |                | BNZ and BNZ Savings Bank         |
|    |                | Development Finance Corpn        |
|    |                | Earthquake & War Damage          |
|    |                | Commission                       |
|    |                | Export Guarantee Office          |
|    |                | Housing Corpn - Housing          |
|    |                | - Rentals and Finance            |
|    |                | Govt Stores Insurance Fund       |
|    |                | Building Performance Guarantee   |
|    |                | Corp'n of NZ                     |
|    |                | NZ Superannuation Corp'n         |
|    |                | NZ Wool Testing Authority        |
|    |                | Reserve Bank                     |
|    |                | Rural Bank                       |
|    |                | State Advances Corp'n            |
|    |                | National Film Unit               |
| 21 | Community      | Broadcasting Council, Radio      |
|    | Social and     | NZ, TV1, TV2                     |
|    | Personal       | Coal Mining Welfare Council      |
|    | Services       | Coal Research Association        |

APPENDIX 3TAX EXPENDITURES

No official record is kept on tax expenditures, so any estimate must draw on historical income tax reports and some view as to what income sources, or expenditure items, are given concessional tax treatment.

It is important to be precise about what 'personal tax expenditure' is. It might be useful to begin at the extreme boundaries. In what sense does Government make provision through the tax system? Some people seem to believe that all tax is theft. Those people would never accept the notion that Government is providing them with anything out of their own tax payment or from income by way of tax relief. There is little one could say to those holding that view. Equally, there is the reductio ad absurdum that all income is provided by the State since it could impose a 100 percent tax rate. That view wouldn't get us very far either.

Most would reject both of these extremes and accept that in modern mixed economies governments can and do make provision through the tax system - that the tax system is not purely a fiscal instrument. What may be at issue is how far we can take this notion of personal tax expenditure in particular circumstances. What, for instance, is the precise difference between tax expenditure given through an exemption and variations in the tax scale? What about the relationship between exemption and the definition of income for tax purposes, or changes in the Inland Revenue Commissioners interpretation of the rules?

These are complex issues (but no more so than those associated with the concept of tax incidence), which cannot be further developed here. But it is clear that the matter is not unequivocal and that major problems arise when there are changes in tax scales, definitions or exemptions. For in those cases, we need to assess the purpose of the change in each case. Clearly, judgements have to be made. With this in mind, the next paragraph outlines the approach used in the text.

The estimate used in the text takes the existing tax schedule and Act for each year as its given base, and then treats as potential tax expenditure any concessions or rebates given with reference to that schedule. The costs in revenue forgone of yearly changes in the tax scale are not therefore treated as tax expenditure for the purpose of this study. In general, the estimate used in the main text is based on a fairly comprehensive coverage of concessional treatment within the existing personal income tax schedule, but on a rather less comprehensive coverage of tax expenditure within the corporate tax structure.

The Task Force on Tax Reform (April 1982) has made a more comprehensive estimate, but only for 1980/81. A comparison of the Task Force estimates and those implied for 1980/81 by the method and coverage used in the text, is shown below.

Broadly, the method used in the text gives an estimate equal to \$848 million (or approximately 75 percent) of the Task Force total of \$1144 (after adjustment). It would cover 100 percent of the Task Force's Personal concessions (and give almost an identical estimate), but only 56 percent of their other concessions. For the main part the difference is that the estimates used in the text do not include the following.

a Business incentives/concessions

|    |  |        |
|----|--|--------|
| i  | Reduction for contributions to employees<br>superannuation funds     | \$ 76m |
| ii | Income exempt from tax<br>(the Task Force's "other revenue forgone") | \$187m |

b Agricultural Forestry and Fishing Concessions

|   |                             |        |
|---|-----------------------------|--------|
| i | Farm development deductions | \$ 30m |
|---|-----------------------------|--------|

These types of concessions have been available at least since the early 1950s, and the amount involved is also likely to move in much the same way as income. So both types could be expected to have grown steadily throughout the period of this study. If so, the trends and conclusions of the text need not be adjusted.

Tax expenditures are not the only source of revenue forgone. There are also interest rate concessions given by government largely to the farm sector (although interest is also forgone on capital advances to public trading organisations corporations). Neither the Task Force on Tax Reform, nor this study, dealt with on this type of concession. But it may be of some interest to indicate here the magnitude of those interest concessions. An estimate of the value of some of those concessions for the 1981/2 year was given in the Parliamentary order paper of 22 April 1982; the relevant parts of which are as follows:

| Interest rate concessions:                 | \$m   |       |
|--|-------|-------|
| Rural Bank                                 | 99    |       |
| Reserve Bank loans<br>(to Producer Boards) | 64    |       |
| Land and Survey Department                 | 1.9   |       |
| Maori Affairs                              | 3.9   |       |
|  | <hr/> | 168.8 |

These estimates took the market rate of interest from which concession was given as 12 percent for Rural Bank loans and 13 percent for other loans. So the estimates are somewhat conservative.

## TAX EXPENDITURE - REVENUE FORGONE

(Task Force Secretariat Estimates)

|  | First Year of<br>application | Estimates<br>1980/81<br>\$m | Estimates<br>by method<br>used in<br>text |
|--|------------------------------|-----------------------------|---|
| <b>PERSONAL CONCESSIONS*</b>                         |                              |                             |   |
| Insurance and superannuation exemption               | 1892                         | 200                         |   |
| First home mortgage interest rebate                  | 1982                         | 85+                         |   |
| Young family rebate                                  | 1977                         | 52                          |   |
| Spouse rebate  | 1933                         | 43                          |   |
| Employment related expenditure deduction             | 1967                         | 40                          |   |
| Low income family rebate                             | 1981                         | 30                          |   |
| Rates rebate   | 1979                         | 15                          |   |
| Overtime rebate                                      | 1974                         | 13                          |   |
| Donations and schools fees rebate                    | 1963                         | 25                          |   |
| Dividend and interest exemption                      | 1970/1958                    | 35                          |   |
| Shiftwork rebate                                     | 1974                         | 9                           |   |
| Dependent relative rebate                            | 1921                         | 7                           |   |
| Special farm/home/fishing vessel ownership rebates   | (various)                    | 5                           |   |
| Housekeeper rebate                                   | 1933                         | 4                           |   |
| Backpay and extra pay rebates                        | 1969/1965                    | 5                           |   |
| Child rebate   | 1979                         | 2                           |   |
| Farm vendor finance bond/mortgage interest exemption | 1979                         | 1                           |   |
| Rebate for visiting experts                          | 1970                         | 1                           |   |
|  |                              | <hr/>                       |   |
| Sub-total  |                              | 582                         | 480                                       |
|  |                              | <hr/>                       | <hr/>                                     |

\* excluding income exempt from tax eg social welfare benefits  
+ 1981/82

Less first home mortgage interest rebate 95

Since that rebate began only in the  
1981/2 year

---

487

---



## BUSINESS INCENTIVES/ CONCESSIONS

|  |           |     | Estimate<br>on basis<br>used in<br><u>main text</u> |
|--|-----------|-----|---|
| <b>Export Incentives</b>                                       |           |     |   |
| Increased exports  | 1963      | 108 |   |
| Increased exports to new markets                               | 1976      | 11  |   |
| Export performance for qualifying goods                        | 1980      | 60  |   |
| Export performance for qualifying services)                    |           |     |   |
| Export performance for qualifying overseas) projects           | 1980      | 1   |   |
| Export performance for qualifying tourist services             | 1980      | 2   |   |
| Export market development and tourist promotion                | 1980      | 36  |   |
|  |           |     |   |
| Sub-total  |           | 218 | 220   |
| <b>Investment Allowances</b>                                   |           |     |   |
| Export - new manufacturing plant and machinery                 | 1977      | 8   |   |
| Regional   | 1977      | 6   |   |
| Industrial development plan                                    | 1977 )    |     |   |
| High priority activity   | 1978 )    | 5   |   |
| Farming and agriculture  | 1977      | 28  |   |
| Fishing vessel   | 1977      | 2   |   |
|  |           |     |   |
| Sub-total  |           | 49  | 41  |
| <b>"Other" Business Concessions</b>                            |           |     |   |
| First year depreciation allowances                             | 1976      | 40  |   |
| Additional depreciation on 2 and 3 shift, plant and machinery  | 1979      | 2   |   |
| Deduction for contributions to employees' superannuation funds | pre 1923  | 76  |   |
| Deduction by companies of specified preference share dividends | 1976      | 8   |   |
| Miscellaneous (6 items)  | (various) | 6   |   |
| Current year deduction for forestry costs - Companies )        |           |     |   |
| Current year deduction for forestry costs - Individuals )      | 1965      | 9   |   |
| Deduction for forestry holding companies                       | 1966      | 1   | 85  |
|  |           |     |   |
| Sub-total  |           | 142 | 85  |
| All business tax expenditure                                   |           | 409 | 346   |

(5)

AGRICULTURAL, FORESTRY AND  
FISHING CONCESSIONS

(See also under Investment Allowances)

|   |           |       | Estimate<br>by method<br>used in<br>text |
|---|-----------|-------|--|
| <b>Farming</b>  |           |       |  |
| Deduction for farm development expenditure                        | 1952      | 30    |  |
| First year depreciation - plant, machiner<br>buildings, meatworks | 1976      | 12    |  |
| Deduction for increase in stock units                             | 1977      | 5     |  |
| Income equalisation averaging provisions                          | 1965      | 2     |  |
| Spreading of income on substantial sale<br>of livestock           | 1950      | 2     |  |
| Miscellaneous (9 items)   | (various) | 3     |  |
|   |           | <hr/> |  |
| Sub-total   |           | 54    | 22                                       |
|   |           | <hr/> | <hr/>                                    |
| <b>Fishing</b>  |           |       |  |
| Deduction for development expenditure<br>on fishing               | 1969      | 5     |  |
| First year depreciation allowances for<br>the fishing industry    | 1975 )    |       |  |
| Deductions for capital expenditure on<br>fishing vessels          | 1969 )    | 2     |  |
|   |           | <hr/> |  |
| Sub-total   |           | 7     | 0  |
|   |           | <hr/> | <hr/>                                    |
| <b>OTHER REVENUE FOREGONE<br/>(excluding Savings Incentives)</b>  |           |       |  |
| Exemption from tax on trustees' income<br>of superannuation funds | pre 1923  | 110   |  |
| Tax treatment of life insurance offices                           | 1931      | 50    |  |
| Exemption from tax of charities                                   | pre 1923  |       |  |
| Tax treatment of building societies                               | 1892      | 6     |  |
| Exemption from tax of Friendly Societies                          | pre 1923  | 10    |  |
| Exemption from tax of Racing<br>Associations and Clubs            | 1973      | 5     |  |
| Tax treatment of Maori authorities                                | 1953      | 5     |  |
| Exemption from tax of scientific<br>research bodies               | 1958      | 2     |  |
| Exemption from tax of first \$1000 of<br>non-profit organisations | 1973      | 7     |  |
|   |           | <hr/> |  |
| Sub-total   |           | 187   | 0  |
|   |           | <hr/> | <hr/>                                    |
| Total   |           | 1239  | 848                                      |
|   |           | <hr/> | <hr/>                                    |





A038506B