GOVERNMENT EXPENDITURE AND REVENUE

INTRODUCTION

The share of economic activity undertaken by governments has grown substantially in most countries in the last few decades. Governments now play a considerable role in allocating resources and shaping national expenditures. This article firstly explores the nature of this growth in government activity, and in particular examines the relative size and growth of the government sector in New Zealand in comparison to other countries. Secondly, the size and overall economic effects of the budget deficit, and the way in which the deficit is financed, is examined. Finally, the article looks briefly at the likely economic impact of the recent wage/price 'freeze' and the 1982 Budget.

RELATIVE SIZE OF GOVERNMENT SECTOR

In 1981/82 total government expenditure before debt repayments was $11,197 million, and total government revenue before borrowing was $9,378 million. These totals were 22.6 per cent and 23.3 per cent higher respectively than in 1980/81. Table A sets out the main components of total expenditure and revenue for 1980/81 and 1981/82 (in the same format as table 2 of the Budget), together with the totals and annual percentage increases since 1972. As can be seen from this table, government expenditure has grown rapidly in the last decade, the only exceptions being 1976/77 when it grew by only 3.0 per cent, and 1979/80 when it grew by 10.8 per cent. Of course a large part of this increase has stemmed from the high rates of inflation experienced in these years but, when expressed as a percentage of gross domestic product (GDP), it is clear that the government sector has accounted for an increasingly large share of the economy. For example, in the three years from 1971/72 to 1973/74, total government expenditure averaged 28.6 per cent of GDP and government revenue averaged 26.5 per cent, whereas in the three years from 1979/80 to 1981/82, expenditure averaged 37.8 per cent of GDP and revenue averaged 31.9 per cent.

While it is acknowledged that a simple comparison of these totals with GDP is not a very sophisticated measure of the Government's involvement in the economy, more refined indicators generally suggest the same result, although the apparent increase is not so dramatic. As an example one might consider the Government's involvement in the economy in terms of the potential aggregate output, rather than the actual level of output. This is a more appropriate indicator, especially when substantial unused capacity exists in the economy. Utilising a series derived in the Reserve Bank to obtain a comparison in real terms, the indication is that the Government's involvement in the economy as a proportion of potential aggregate output, is now above the level of the 1960s and early 1970s.

Government sector to GDP ratios form the most convenient and reasonably consistent indicators for a comparison of government sector growth trends in a number of countries. However, they are much less satisfactory for comparing the size of the government sector in different countries because of definitional problems which occur particularly between countries with federal systems of government and those with Westminster or more centralised forms of government. Table B shows the proportion of GDP accounted for by government expenditure and revenue in various countries in 1974 and 1980. According to these measures there has been an expansion in the government expenditure to GDP ratio for all the countries shown, and while the overall trend in government revenue has been similar, it is less widespread, with Japan, United Kingdom, and Canada all showing some reduction in revenue as a proportion of GDP.

Apart from the more familiar income, expenditure and monetary effects of the government budget, there are a number of other very important effects associated with the economic incentives and disincentives provided by different types of government expenditure and revenue policies. These affect the labour supply, work effort, export activity, corporate and household savings, the level and allocation of business investment, income and consumption patterns and so on. Such effects are complex and often very difficult to quantify, and therefore it is difficult to form a satisfactory comprehensive assessment of the costs and benefits of the growth of the government sector in New Zealand.

IMPACT OF THE BUDGET DEFICIT

Income/Expenditure Effects of the Budget

At the simplest level, a fiscal deficit — an excess of government spending over government revenue — is normally considered to be expansionary in that the Government, by spending more than it receives in revenue, is adding to the sum total of expenditure in the economy and, thereby, boosting activity. If the economy is in a recessionary phase a deficit can assist in drawing forth increased real output and may promote additional employment. Unfortunately, higher spending may also stimulate the demand for imports, and thus cause a deterioration in the balance of payments. Furthermore, if the economy is operating at close to full capacity, or even if particular industries are in this situation, a budget deficit may also create an overall level of demand in excess of the available supply of goods and services, with the excess spending spilling over into price rises and higher inflation rates. In this situation the balance of payments and rate of inflation may impose serious constraints on the Government's ability to use fiscal policy to stimulate activity.

The conventional government deficit (i.e. the 'amount to be financed from borrowing' in table 2 of the annual Budget) is not a very good indicator of even this highly simplified view of the effects of the deficit. An adjusted domestic deficit can be obtained by taking out those transactions which have no direct impact on the domestic economy. Specifically, the Government's current overseas exchange transactions and also some fairly minor capital transactions included in miscellaneous receipts (involving capital gains or losses on foreign investments due to exchange rate fluctuations) should be removed.

A further refinement becomes justifiable when it is recognised that not only does the deficit affect the economy, but the state of the economy also affects the deficit because of the presence of 'automatic' as well as 'discretionary' elements in government expenditure and government revenue. For example, the level of income

and the rate of inflation affect taxation receipts, and the level of unemployment benefits paid out depends on the number of unemployed.

One possible way around this is to compute data representing the 'full employment surplus'. This indicates how expansionary or contractionary a particular budget balance is by calculating, for the particular level of discretionary expenditure and revenue involved, the levels of automatic expenditure and revenue (and hence the deficit or surplus) which would occur if the economy was in a state of full employment. This indicator also has deficiencies, including measurement and definition problems, but perhaps most importantly it places sole emphasis on full employment as the common base on which to measure budgets against one another. Especially in a country like New Zealand, however, other objectives such as reasonable balance of payments equilibrium and price stability may also be very important.

An alternative approach is to compare a particular deficit with the corresponding 'cyclically neutral balance' to obtain the 'cyclical effect of the budget'. The cyclically neutral balance is the budget deficit or surplus that would result if (adjusted) government expenditure increases over time in proportion to the growth of potential output and (adjusted) government revenue changes in proportion to actual output.[1] This concept has some deficiencies similar to those of the full employment surplus, and requires the arbitrary choice of a cyclically neutral base year. However, it does allow

1 This approach, along with the other alternative measures of the budget deficit, are described in more detail in *The Stabilisation Role of Fiscal Policy* by R. S. Deane and R. G. Smith, New Zealand Planning Council, Planning Paper No.5, April 1980.

TABLE A: GOVERNMENT EXPENDITURE AND REVENUE

	Government Expenditure $m.	*Annual % Change*	*% of GDP*	*Government Revenue[1] $m.*	*Annual % Change*	*% of GDP*	*Deficit Before Borrowing*
1972	1,903	16.3	27.7	1,830	17.7	26.7	72
1973	2,262	18.9	28.7	2,056	12.3	26.1	206
1974	2,679	18.5	29.3	2,438	18.6	26.7	242
1975	3,462	29.2	34.5	3,072	26.0	30.6	390
1976	4,444	28.4	38.7	3,443	12.1	30.0	1,002
1977	4,578	3.0	33.2	4,072	18.3	29.5	506
1978	5,669	23.8	37.3	4,974	22.2	32.6	694
1979	6,848	20.8	39.0	5,402	8.6	30.8	1,446
1980	7,587	10.8	36.2	6,560	21.4	31.3	1,027
1981	9,133	20.4	37.9	7,609	16.0	31.5	1,525
1982[2]	11,197	22.6	39.4	9,378	23.2	33.0	1,818

	1981		1982	
	$m.	*% Change*	*$m.*	*% Change*
EXPENDITURE				
Administration	785.8	13.5	914.2	16.3
Foreign Relations	577.9	28.0	719.9	24.6
Development of Industry	797.1	11.6	1,182.6	48.5
Education	1,292.0	28.0	1,493.2	15.6
Social Services	2,589.7	19.1	3,042.3	17.5
Health	1,356.3	19.4	1,601.2	18.1
Transport and Communications	332.6	25.5	460.6	38.5
Debt Services and Miscellaneous Investment Transactions	990.9	28.6	1,375.0	38.8
Sub-Total	8,722.3	20.9	10,790.0	23.7
Miscellaneous Financing Transactions	411.1	10.4	406.5	−1.1
TOTAL NET EXPENDITURE	**9,133.4**	**20.4**	**11,196.5**	**22.6**
Financed From				
Income Tax	5,298.9	18.7	6,514.7	22.9
Customs, Sales Tax and Beer Duty	1,189.2	17.3	1,633.5	37.4
Motor Spirits Tax	139.5	−21.5	147.2	5.5
Highways Tax	189.3	35.7	211.6	11.8
Other Taxation	233.9	4.7	291.0	24.4
Total Taxation	7,050.8	17.1	8,798.0	24.8
Interest, Profits and Miscellaneous Receipts	557.7	3.3	580.2	4.0
TOTAL RECEIPTS	**7,608.5**	**16.0**	**9,378.2**	**23.3**
DEFICIT BEFORE BORROWING	**1,524.9**		**1,818.3**	

1 In the 1978 Budget N.Z. Railways and the Ministry of Energy were for the first time placed outside of the Public Account. This move resulted in Government revenue and expenditure being slightly higher, but left the deficit before borrowing unchanged. Figures above for Government expenditure and revenue for earlier years are on the same basis.
2 Using the estimate of GDP used in the Budget.

the balance of payments and the inflation rate to be taken into account when selecting the base period.

Table C compares the conventional budget deficit with the adjusted domestic deficit and the cyclical effect of the budget calculated using 1971/72 as base year. 1971/72 is chosen as cyclically neutral (the budget for that year therefore having a cyclical effect of zero by definition) because in that period there was moderate economic growth and reasonable balance of payments equilibrium, unemployment was low, inflation was under 10 per cent, and the terms of trade were favourable.

It is immediately apparent that for the years shown, the removal of budget transactions which do not directly affect the domestic economy leads to a significantly lower domestic deficit, and that the conventional budget deficit therefore substantially overstates the domestic effects of the budget. The cyclical effect of the budget indicates that the budgets for 1974/75 to 1976/77 were rather more expansionary than the adjusted domestic deficit suggests, while those for 1977/78 to 1981/82 were less expansionary. Given the state of the economy in these years, neutral budget balances would, according to this measure, have been surpluses in 1974/75 to 1976/77, and neutral balances would have been deficits in the later years. In fact, this indicator suggests that in 1979/80, the budget was actually slightly contractionary. For the underlying economic conditions in that year, a larger (domestic) deficit than actually occurred would have been cyclically neutral.

However, because of the weaknesses in all three measures more attention should be paid to the relative movements in each indicator than to their absolute levels. A feature common to each is the large and sudden shifts in the stance of fiscal policy over the years considered. Although the budget was already strongly expansionary in 1974/75, it became even more expansionary in 1975/76 (with a cyclical effect, as a proportion of GDP, more than double that of 1974/75). In the following two years, the cyclical effects of the budget were only mildly expansionary, then increased sharply again in 1978/79. In the following year the stance of the budget reversed to become slightly contractionary in a cyclical sense. Finally, in 1980/81 and 1981/82, the budget once more reverted to an expansionary stance.

TABLE B: INTERNATIONAL COMPARISON

	Government Expenditure as % of GDP[1]		*Government Revenue as % of GDP*[1]	
Calendar Year	*1974*	*1980*	*1974*	*1980*
New Zealand[2]	34.5	39.4	30.6	33.0
Australia	26.1	27.8	25.0	25.9
Canada[3]	21.0	22.6	22.3	20.1
Germany	14.0	15.3	13.0	13.4
Japan[4]	10.4	13.1	9.0	8.1
Netherlands	29.3	37.8	30.3	34.6
Singapore	14.6	22.0	21.4	27.4
United Kingdom	35.6	38.2	35.3	35.1
United States	20.6	23.4	19.8	20.7

1 Government expenditure and revenue as given in the IMF publication *International Financial Statistics* (July 1982), except for New Zealand for which total expenditure and revenue as in table A is used.
2 Nearest March years — i.e. 1974/75 and 1980/81.
3 Government expenditure and revenue for the following March year, GDP for calendar year.
4 Calendar years 1974 and 1979.

TABLE C: INDICATORS OF THE EFFECT OF THE BUDGET

(Deficit(−), Surplus(+))

	Conventional Budget Deficit		*Adjusted Domestic Deficit*		*Cyclically Neutral Balance*	*Cyclical Effect of the Budget*	
March Year	*$m*	*% of GDP*	*$m*	*% of GDP*	*$m*	*$m*	*% of GDP*
1975	− 390	3.9	− 250	2.5	+144	−394	3.9
1976	−1,002	8.7	− 789	6.9	+116	−905	7.9
1977	− 506	3.7	− 199	1.4	+ 36	−235	1.7
1978	− 694	4.6	− 361	2.4	−201	−160	1.0
1979	−1,446	8.3	− 977	5.6	−371	−606	3.5
1980(p)	−1,027	4.9	− 410	2.0	−483	+ 73	0.3
1981(p)	−1,525	6.3	− 943	3.9	−404	−539	2.2
1982(e)	−1,818	6.4	−1,144	4.0	−256	−888	3.1

(p) — using provisional Statistics Department figures for GDP.
(e) — using estimate of GDP used in the Budget.

Monetary Effects of the Budget

The above indicators essentially take into account only the income/expenditure effects of the Government's budget balance. There are also monetary effects which are closely related to the way the budget balance is financed and which interact with the income and expenditure effects on output, inflation and the balance of payments. There are four main ways in which the Government can finance a budget deficit: it can borrow from the non-M3 private sector of the domestic economy, it can borrow from the Reserve Bank or run down its balances at the Reserve Bank, it can borrow funds from trading banks and the 'other' M3 financial institutions and it can borrow from overseas.

To borrow from the non-M3 private sector, the Government sells securities (through the Reserve Bank) to the non-M3 financial sector and the general public. These can be purchased either voluntarily if the securities offer attractive enough interest rates and other conditions, or compulsorily through the government security ratio requirements applying to the relevant financial institutions. This reduces both the money supply and the reserve assets of the banking system (with the latter effect also reducing the ability of banks to extend credit). In general, this reduces the public's spending ability, and will also reduce interest-sensitive expenditures if the sales of securities are achieved by raising interest rates. It thus acts as an offset to the expansionary income/expenditure effects of a deficit. The less liquid are the government securities involved, the more effective this approach will be.

In contrast, borrowing from the Reserve Bank results in increases in both the money supply and in the reserve assets of the banking system, as the excess of government expenditure over revenue flows through to the rest of the economy and increases the ability of banks to extend credit. The spending power of the community is thus increased. If interest rates are also pushed down, this will encourage an increase in interest-sensitive expenditures. In other words there is no offset to the income and expenditure effects of the deficit, in the absence of other policy measures. Indeed, there may, through interest rates and money and reserve asset aggregate effects, be an additional expansionary effect.

In the New Zealand context, where there is no cash ratio or explicit liquidity convention for trading banks, borrowing from the trading banks involves a change in the structure (and also the profitability) of banks' reserve assets. The initial reaction of banks to an increase in their cash balances at the Reserve Bank as a result of a budget deficit (which might have been temporarily financed through an overdraft on the Government's account at the Reserve Bank) would normally be to use those balances to acquire government securities. The Government's account would then be credited with the proceeds, so that the deficit will have been financed in a more permanent way by the trading banks. The money supply and the reserve assets of the banking system have not changed (after the initial increase), so that again there is no offset to the income and expenditure effects of the deficit. A similar outcome, i.e. the 'monetising' of the deficit, occurs when the Government borrows from the 'other' M3 financial institutions, namely the savings banks, the finance companies, the stock and station agents and the official money market dealers.

The fourth alternative is for the Government to borrow overseas. When this happens, New Zealand's overseas assets are increased (at least initially). The Government's account at the Reserve Bank is credited with the proceeds when the Government sells the funds to the Reserve Bank. The monetary impact on the private sector arising from the deficit is much the same as when the deficit is financed by borrowing from the Reserve Bank, although foreign borrowing does have the advantage, in the short-term, of helping to finance the overseas deficit.

Table D sets out the sources which have been used to finance recent budget deficits. It should be noted that figures for 1979/80 and subsequent years are compiled on a somewhat different basis from earlier years. The figures for borrowing from the non-M3 private sector for the earlier years are calculated as a residual after the other items in the table have been identified. For the last three years, figures for non-M3 borrowing are determined directly and, as with figures for borrowing from the Reserve Bank, trading banks and the other M3 financial institutions, they show the net change in holdings of government securities. For various reasons these figures do not quite match up with the figures for registered holdings of public debt shown elsewhere in this *Bulletin*. Nor do they exactly tally with the Budget table 2 figure for government borrowing (net of repayments) in New Zealand. A residual item is therefore included in 'Other Transactions' for these years.

The table is set out so as to show more clearly the domestic monetary effects of the financing transactions. Since this involves the adjusted domestic deficit rather than the conventional deficit before borrowing from Budget table 2, the adjustment item used to obtain the former is included under 'Other Financing Transactions'. The table then reconciles with the Budget table 2 cash surplus or deficit. The deficit or surplus after non-M3 private sector borrowing — i.e. the amount to be financed by the Reserve Bank, the trading banks, the other M3 financial institutions or overseas — is particularly important in this regard since it indicates the degree to which the Government has found it possible or desirable to offset the monetary effects of the domestic deficit.

For example, in 1975 very little was borrowed from the non-M3 private sector, and so very little of the expansionary monetary effects of the adjusted domestic

TABLE D: GOVERNMENT FINANCING TRANSACTIONS
($ million)

Year ended March	*1975*	*1976*	*1977*	*1978*	*1979*	*1980*	*1981*	*1982*
Adjusted Domestic Deficit (as in table C)	−250	−789	−199	−361	−977	−410	−943	−1144
Government Borrowing from:								
Other Captive Institutions	..	..	..	..	..	+146	+301	+304
Government Corporations	..	..	..	..	..	+134	+114	+ 20
Remaining Private Sector	..	..	..	..	..	+113	+ 68	+387
Total Non-M3 Private Sector:	+ 4	+106	+108	+219	+496	+393	+483	+ 711
Domestic Deficit (−) or Surplus (+) financed by trading banks, the Reserve Bank and Overseas	−246	−683	− 91	−142	−481	− 17	−460	−433
Other Financing Transactions:								
Borrowing from Trading Banks[1]	− 52	+261	−119	+720	+101	+ 96	− 18	−139
Borrowing from Reserve Bank	+167	+246	+256	−471	− 49	+191	−151	+597
Borrowing from 'Other' M3 Institutions	+ 21	+160	+133	+116	+300	+218	+273	+204
Net Overseas Borrowing and Investment	+246	+287	+130	+266	+444	+328	+754	+609
Net Government Overseas Exchange Transactions[2]	−140	−213	−307	−334	−469	−617	−582	−674
Other Transactions[3]	—	− 71	—	−150	+150	−194	+188	−161
BUDGET TABLE 2 CASH SURPLUS (+) OR DEFICIT (−):	− 4	− 12	+ 2	+ 6	− 4	+ 5	+ 4	+ 3

1 The introduction of the Compensatory Deposits Scheme in March 1978 enabled trading banks to maintain their government security holdings at the end of March at a higher level than in the past.

2 This is the adjustment item used to obtain the adjusted domestic deficit from the conventional 'deficit before borrowing'. The major component is the Government's current OET deficit.

3 In the past, this item has mainly reflected Government time deposits with the Reserve Bank. In 1982, this entry also includes payment to the Reserve Bank on account of the Reserve Bank Indemnity, (see the Report of the Controller and Auditor General, Parliamentary Paper, B1 [Pt. II] P. 75, 96). This item also includes residual items of $35 million for 1979/80, $21 million for 1980/81, and $22 million for 1981/82. These residuals are mainly unidentified loan receipts.

deficit were offset. In 1976, non-M3 borrowing was much higher but so too was the domestic deficit with the result that the monetary effects were significantly more expansionary than in the previous year. In 1977 the domestic deficit was sharply reduced while non-M3 borrowing remained at a level similar to 1976, so that the monetary effects of the deficit were largely offset. The balance after non-M3 borrowing was slightly more expansionary in 1978 compared with the previous year, while it was substantially more expansionary in 1979. The position was reversed again, in 1980, when most of the reduced domestic deficit was financed by non-M3 private sector borrowing. This was followed in 1981 by a significant increase in the domestic deficit which more than offset the rise in non-M3 borrowing, with the result that the monetary effects of the deficit were quite expansionary. Finally, in the 1981/82 financial year, some $711 million was borrowed from the non-M3 private sector, leaving a net injection from the budget of $433 million into the reserve base of the financial system and into the money supply, a level slightly below that of the preceding year.

TABLE E: CYCLICAL BUDGET EFFECTS USING CONVENTIONAL BUDGET DATA
(Deficit(−), Surplus (+))

March Year	*Conventional Budget Deficit* $m	*% of GDP*	*Cyclically Neutral Balance (Unadjusted)* $m	*Cyclical Effect of the Budget (Unadjusted)* $m	*% of GDP*
1975	− 390	3.9	+ 6	− 397	4.0
1976	−1,002	8.7	− 46	− 956	8.3
1977	− 506	3.7	−160	− 346	2.5
1978	− 694	4.6	−427	− 267	1.8
1979	−1,446	8.3	−641	− 805	4.6
1980(p)	−1,027	4.9	−796	− 231	1.1
1981(p)	−1,525	6.3	−764	− 761	3.2
1982(e)	−1,818	6.4	−667	−1,151	4.1
1983(e)	−1,879	5.9	−806	−1,073	3.4

(p) — using provisional Statistics Department figures for GDP.
(e) — using estimate of GDP used in the Budget.

THE 1982 BUDGET

Government expenditure and revenue for the 1982/83 financial year are budgeted at $12,766 million (an increase of 14 per cent) and $10,887 million (up 16 per cent), respectively. These amounts represent 40 per cent and 34.2 per cent of forecast GDP, and the estimated deficit before borrowing ($1,879 million) represents 5.9 per cent of GDP. In the absence of information on the size of the Government's overseas exchange transactions and likely financing patterns, the most appropriate indicator of the stance of the Budget is probably the cyclical effect of the Budget as described above, but using conventional expenditure and revenue data rather than adjusted data. As with the adjusted cyclical effect, this indicator is more suitable as a means for comparing the relative stance of the Budget in different years than as a measure of the expansionary or contractionary nature of a particular deficit in an absolute sense.

The cyclical indicator in Table E suggests that the Budget this year will be slightly less expansionary than in 1981/82, and similar to that in 1980/81. While the Budget deficit is larger than previous post-election year deficits, the large swings in fiscal policy around previous election years has not been as apparent for the 1980/81 to 1982/83 period. This should have a stabilizing effect on the economy.

Over recent months, the main focus of the Government's economic policy has been to reduce New Zealand's high inflation rate. In June, the Government introduced a 12 month freeze on prices, wages, dividends, professional charges, directors' fees, rents and interest rates. An additional step in the Government's programme to reduce inflation was contained in the 1982 Budget, namely the reduction and flattening of the personal income tax scales (effective from October 1982). These changes to the personal income tax rates represent the second half of the Government's wage-tax trade-off. This policy by reducing the cost of labour to employers, is designed to both break the wages/prices spiral and to increase the demand for labour and thereby reduce unemployment. The conditions required for this combination of measures to be successful were clearly stated in the Budget. "If we are to fight inflation successfully, we must have firm fiscal and monetary policies. We cannot allow the anti-inflationary effect of the freeze to be undermined by contradictory policies in the fiscal and monetary areas . . . . fiscal policy, monetary policy, and exchange rate policy have to be consistent with one another because of the close connections between them. Moreover, the consistency has to apply for a sustained period."

The contribution of the 1982/83 Budget to the Government's objective of reducing inflation will depend on the manner in which the fiscal deficit is financed. The larger the fraction financed by government security sales to the public, the smaller the impact of the deficit on reserve assets and the money supply. Over the next year, the increasing net withdrawal through the balance of payments seems likely to exceed the budgeted fiscal injection, resulting in a sustained reduction in the growth rates of the monetary and credit aggregates. This tightening of the easy monetary conditions of 1981 is an essential ingredient required to ensure the success of the Government's campaign against inflation.