GOVERNMENT EXPENDITURE AND REVENUE

INTRODUCTION

The Public Accounts for the 1980/81 financial year were published in May 1981 and the Estimates of Expenditure for 1981/82 and the 1981 Budget were presented to Parliament on 9th July. This article replaces the annual *Bulletin* articles of previous years which dealt with the annual Public Accounts and, rather than discussing the Accounts themselves in detail, pays more attention to the overall economic effects of government expenditure and revenue, and the various alternatives for financing the Government's budget deficit.

Two broad issues are examined in relation to government expenditure and revenue within the New Zealand context. The first concerns the relative size of the government sector in New Zealand in comparision to other countries and to the level and growth of government expenditure and revenue in this country. This is covered in the next section. The second issue concerns the size and effects of the budget deficit and the way in which the deficit is financed. This is addressed in the following section. Finally, the paper looks briefly at the likely impact of the 1981 Budget.

RELATIVE SIZE OF GOVERNMENT SECTOR

In 1980/81 total (net) government expenditure before debt repayments was $9,133 million, and total (net) government revenue before borrowing was $7,608 million. These totals were 20.4 percent and 16.0 percent higher respectively than in 1979/80. Table A sets out the main components of total expenditure and revenue for 1979/80 and 1980/81 (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 percent, and 1979/80 when it grew by 10.8 percent. 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 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 percent of gross domestic product and government revenue averaged 16.5 percent. But in the three years from 1978/79 to 1980/81, expenditure averaged 37.8 percent of GDP and revenue averaged 31.3 percent.

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 may not be 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 Government's involvement in the economy as a proportion of potential aggregate output, while lower than the very high levels of the mid-1970s is still above the level of the 1960's or early 1970's.

Government sector/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 other forms of centralised government. Table B shows the proportion of GDP accounted for by government expenditure and revenue in various countries in 1974 and 1979. According to these measures there has been a consistent trend of growth in the proportion of GDP accounted for by government expenditure, although it is insignificant in the case of Canada. The trend in government revenue is less consistent, with Japan, United Kingdom and Canada all showing a reduction in revenue as a proportion of GDP between 1974 and 1979.

The OECD prepares a number of comparative series for government revenue and expenditure for its member countries which provide more useful indicators of the comparative size of the government sector in different countries. These include a series of total outlays of government and current receipts of government, both expressed as percentages of GDP. Unfortunately New Zealand's very recent adoption of the System of National Accounts means that New Zealand figures for this series are not yet available and so the overall size of the government sector in this country cannot be compared on a uniform basis with that of other OECD member countries.

Apart from the more familiar income, expenditure and monetary effects of the Government budget, there are other very important effects relating to the incentives and disincentives to various actions 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 objective assessment of whether or not the level and growth of the government sector in New Zealand has been harmful. In the absence of a thorough investigation of such effects, opinions on this matter inevitably reflect ideological and political preferences.

IMPACT OF THE BUDGET DEFICIT

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 may assist in drawing forth increased real output and promote additional employment which may be considered desirable Unfortunately, higher spending may also stimulate the demand for imports, and thus cause a deterioration in the balance of payments. But 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. More fundamental problems relate to the authorities' ability to recognise and understand what is happening to the economy at any particular time, or what is likely to happen in the foreseeable future, and adopt fiscal policies which make correct allowances for the lags involved in the policy process and in the economic processes themselves.

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 necessary 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.

TABLE A: GOVERNMENT EXPENDITURE AND REVENUE

Year Ended 31 March	*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	39.1	5,402	8 6	30.6	1,446
1980	7,587	10.8	36.3	6,560	21.4	31.4	1,027
1981	9,133	20.4	38.1	7,609	16 0	31.7	1,525

	1980		*1981*	
EXPENDITURE	*$m.*	*% Change*	*$m.*	*% Change*
Administration	692.6	14 8	785.8	13.5
Foreign Relations	451.5	17 4	577.9	28.0
Development of Industry	714.2	−16.8	797.1	11 6
Education	1,009.3	8.6	1,292.0	28.0
Social Services	2,175.0	17.3	2,589.7	19.1
Health	1,136.2	15.9	1,356.3	19.4
Transport and Communications	265.0	− 5.1	332.6	25.5
Debt Services and Miscellaneous Investment Transactions	770.6	30.1	990.9	28.6
Sub-Total:	7,214.4	11.3	8,722.3	20.9
Miscellaneous Financing Transactions	372.3	1.2	411.1	10.4
TOTAL NET EXPENDITURE.	7,586.7	10.8	9,133.4	20.4
Financed From:				
Income Tax	4,465.6	22.2	5,298 9	18.7
Customs, Sales Tax and Beer Duty	1,013.9	27.6	1,189.2	17.3
Motor Spirits Tax	177.6	15.2	139.5	−21.5
Highways Tax	139.5	−12.3	189.3	35.7
Other Taxation	223.4	− 1.3	233 9	4.7
Total Taxation:	6,020.0	20.7	7,050.8	17.1
Interest, Profits and Miscellaneous Receipts	539.8	30.7	557.7	3.3
TOTAL RECEIPTS:	**6,559.8**	**21.4**	**7,608.5**	**16.0**
DEFICIT BEFORE BORROWING:	**1,026.9**		**1,524.9**	

1 In the 1978 Budget N Z. Railways and the Ministry of Energy were first 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.

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 deficiences, 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 be just as important as full employment.

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

Table C compares the 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 percent, and the terms of trade were favourable but not at their peak.

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 1980/81 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,

1 This approach is 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 B: INTERNATIONAL COMPARISON

	Government Expenditure as % of GDP[1]		*Government Revenue as % of GDP*[1]	
Calendar Year:	1974	1979	1974	1979
New Zealand[2]	34.5	36.3	30.6	31.4
Australia	26.1	28 1	25 0	25.2
Canada[3]	21.0	21.1	22 3	18 4
Germany	14.0	15 2	13.0	13.3
Japan[4]	10.4	13.9	9 0	8 5
Netherlands	29.3	38 2	30.3	35 4
Singapore	14.6	20.0	21.4	24.0
United Kingdom	35.6	36 9	35.3	33 3
United States	20.6	21.5	19.8	20.3

1 Government expenditure and revenue as given in the IMF publication *International Financial Statistics* (May 1981), 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 1979/80
3 Government expenditure and revenue for the following March year, GDP for calendar year
4 Expenditure and revenue as a percentage of GNP instead of GDP.

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(p)	−1,446	−8.3	−977	−5.6	−371	−606	−3.5
1980(p)	−1,027	−4.9	−410	−2.0	−485	+ 74	+0 4
1981(e)	−1,525	−6.4	−943	−3.9	−414	−529	−2.2

(p) — using provisional Statistics Department figures for GDP
(e) — using N.Z I.E.R. estimate of GDP

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, the budget reverted once more to an expansionary stance.

These 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-bank 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 domestic trading banks, and it can borrow from overseas.

To borrow from the non-bank private sector, the Government sells securities (through the Reserve Bank) to the non-bank 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 most 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.

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.

The fourth alternative is for the Government to borrow overseas. When this happens, New Zealand's overseas assets are increased (at least initially) and the Government's account at the Reserve Bank is credited with the proceeds. In the absence of offsetting action the monetary impact on the private sector is much the same as for borrowing from the Reserve Bank, although foreign borrowing does have the advantage, in the short term, of helping to finance the overseas deficit generated by the expansion in activity caused by the Government's deficit.

The following table sets out the sources which have been used to finance recent budget deficits. It should be noted that figures for 1979/80 and 1980/81 are compiled on a somewhat different basis from previous years. The figures for borrowing from the non-bank private sector for the earlier years are calculated as a residual after the other items in the table have been identified. For the last two years, figures for non-bank borrowing are determined directly, and as with figures for borrowing from trading banks and the Reserve Bank, they show the net change in these institutions' 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

TABLE D: GOVERNMENT FINANCING TRANSACTIONS
($ million)

Year ended March	*1975*	*1976*	*1977*	*1978*	*1979*	*1980*	*1981*
Adjusted Domestic Deficit (as in table C)	−250	−789	−199	−361	−977	−410	−943
Government Borrowing from:							
Non-Bank M3 Institutions	.	. .	. .	.	. .	+196	+236
Other Captive Institutions	. .	.	. .	. .		+146	+301
Government Corporations	. .	. .	.	. .	. .	+134	+114
Remaining Non-Bank Private Sector	. .	. .	. .	. .	. .	+113	+ 68
Total Non-Bank Private Sector:	+ 25	+266	+241	+335	+796	+589	+719
Domestic Deficit (−) or Surplus (+) financed by trading banks, the Reserve Bank and Overseas	−225	−523	+ 42	− 26	−181	+179	−224
Other Financing Transactions:							
Borrowing from Trading Banks[1]	− 52	+261	−119	+720	+101	+ 96	− 18
Borrowing from Reserve Bank	+167	+246	+256	−471	− 49	+191	−209
Net Overseas Borrowing and Investment	+246	+287	+130	+266	+444	+328	+754
Net Government Overseas Exchange Transactions[2]	−140	−213	−307	−334	−469	−617	−582
Other Transactions[3]	—	− 71	—	−150	+150	−172	+283
	+220	+511	− 40	+ 32	+177	−174	+227
BUDGET TABLE 2 CASH SURPLUS (+) OR DEFICIT(−):	**− 4**	**− 12**	**+ 2**	**+ 6**	**− 4**	**+ 5**	**+ 4**

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 Government's current O E.T deficit and revenue gains or losses on overseas investments This is the adjustment item used to obtain the adjusted domestic deficit from the conventional 'deficit before borrowing'

3 Mainly reflects Government time deposits with the Reserve Bank Also includes residual items of $35 million for 1979-80 and $76 million for 1980-81 The 1979-80 residual includes $31 5 million of 'loan receipts unallocated', representing an advance subscription to government stock by the Reserve Bank At the time of writing, the $76 million residual for 1980-81 is still being investigated.

Transactions' for these years. (A forthcoming *Bulletin* article will describe the derivation of these figures in more detail.)

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-bank private sector borrowing — i.e. the amount to be financed by trading banks, the Reserve Bank, 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-bank private sector, and so very little of the expansionary monetary effects of the (adjusted domestic) deficit were offset. In 1976, non-bank borrowing was much higher but so too was the domestic deficit with the result that the monetary effects were even more expansionary than in the previous year. In 1977 the domestic deficit was sharply reduced while non-bank borrowing remained at a level similar to 1976, so that the monetary effects of the deficit were more than offset. In 1978 the balance after non-bank borrowing was again slightly expansionary, then quite strongly expansionary in 1979. In 1980 the position was reversed again with considerably more funds being withdrawn from the private sector through non-bank borrowing than were injected through the (reduced) domestic deficit. Finally, in the 1980/81 financial year, some $719 million was borrowed from the non-bank private sector, leaving a net injection from the budget of $224 million into the reserve base of the financial system and into the money supply.

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

	Conventional Budget Deficit		*Cyclically Neutral Balance (Unadjusted)*	*Cyclical Effect of the Budget (Unadjusted)*	
March Year	*$m*	*% of GDP*	*$m*	*$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	−434	− 260	−1.7
1979(p)	−1,446	−8.3	−641	− 805	−4.6
1980(p)	−1,027	−4.9	−799	− 228	−1.1
1981(e)	−1,525	−6.4	−774	− 751	−3 1
1982(f)	−2,090	−7 4	−890	−1,200	−4 2

(p) — using provisional Statistics Department figures for GDP
(e) — using N Z.I.E R estimate of GDP
(f) — using N.Z.I E.R forecast of GDP, and deficit estimated at time of Budget.

THE 1981 BUDGET

Government expenditure and revenue for the 1981/82 financial year are budgeted at $10,917 million (an increase of 19.5 percent) and $8,827 million (up 16.0 percent) respectively. These amounts represent 38.5 percent and 31.1 percent of forecast GDP, and the estimated deficit before borrowing ($2,090 million) represents 7.4 percent 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 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.

Table E again shows the large and erratic variations in the Budget stance that have taken place in the past, and the cyclical indicator as well as the conventional deficit suggests that the Budget this year will be significantly more expansionary than in the last two years and only a little less expansionary than it was in 1979. (Of course the Budget deficit for 1981/82 that actually results could be different from the forecast deficit. In the three years since 1978/79, the actual deficits have been $396 million higher, $63 million lower, and $265 million higher than the budgeted deficits.)

The underlying economic conditions were generally depressed through most of 1978/79, but a (temporary) increase in aggregate expenditure — especially consumption expenditure — and a sharp acceleration in the growth rates of the monetary aggregates accompanied the expansionary Budget. Economic conditions now appear rather more buoyant than they were at that time, and there are signs that expenditure and activity could be picking up already. There should be further stimulus later this year and next year from investment in the major projects and perhaps from higher demand and prices for our agricultural exports. In addition the growth rates of the monetary aggregates are also accelerating as the demand for credit increases. Given the lags involved, there appears to be some element of a risk that the fiscal stimulus will coincide with these other effects and serve to worsen the balance of payments and inflation situations in 1982.

The Budget statement noted the need to 'ensure that the public sector does not pre-empt those resources which will be required by the private sector to meet the nation's growth and development objectives' and also to 'avoid an excessive short-term credit expansion which would impair the prospects for reducing inflation and the overseas deficit'. In view of the more expansionary phase into which the economy appears to be moving and the expansionary appearance of the 1981 Budget's fiscal deficit, some care will need to be exercised in the choice of methods for financing the Government's deficit before borrowing if a rapid expansion in money supply aggregates and credit is to be avoided and the objectives achieved.