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Strengthening Strategic Management: Summary of Fiscal Modelling Work



# STATE SERVICES COMMISSION

Te Komihana O Ngā Tari Kāwanatanga This paper summarises results of fiscal model runs commissioned by the Minister of State Services, and discusses the next steps for the State Services Commission's Strategic Management Project.

The results confirm that governments will face substantial trade-offs between the provision of social services, and attempts to limit government expenditure, tax, and public debt.

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# Introduction

This paper provides a summary of the model runs commissioned on growth in government expenditure from the New Zealand Institute of Economic Research Inc. (NZIER), <sup>1</sup> and the implications of this for Public Service capability. The work has been carried out to illustrate the nature of the strategic choices facing government over the medium to long term. As such, it is a *positive* analysis that illustrates a range of possible consequences and trade-offs. It does not address the *normative* question of the optimal level of spending, tax or debt. Such an analysis would require a different methodology and would be outside both the brief for the project and the State Services Commission's (SSC) mandate.

This paper identifies fiscal modelling that has been carried out by other organisations and discusses the variations in the results produced. All of the modelling work referred to has been developed using the same long term fiscal model, although different organisations will have different views.

### Background

The impetus for both the NZIER modelling work, and that carried out by others, is the extent to which looming demographic changes imply significant strategic trade-offs. These might include the trade-offs that face government in meeting the demands for both health and welfare services, while keeping debt and taxes down. A particular concern is that capability in core departments would be eroded.

The model runs were divided into three scenarios. Core government was defined as the residual of government expenditure once social spending (social welfare benefits, education and health) and debt servicing costs were removed.

• Scenario One: tax as a residual.

This baseline scenario measures the tax/GDP ratio required to fund core government and social spending at expected levels based on demographic change, GDP growth, and assumed real growth in spending.

• Scenario Two: social spending as a residual.

This scenario measures the social spending that could be undertaken maintaining the (debt and tax/GDP) set targets, and assumed real growth in core State spending.

• Scenario Three: core State spending as a residual.

This scenario measures the funding available for the core State given both the debt and tax/GDP targets, and assumed real growth in social spending.

The debt and tax/GDP targets set for *Scenarios Two* and *Three* were net debt of zero and a tax/GDP ratio of 20 percent, with both targets being achieved by 2010. In *Scenario One* the debt target set was to maintain a constant net debt/GDP ratio from 2002. This is the same as that used by NZIER in the work for the Periodic Review Group<sup>2</sup> (PRG).

None of the scenarios allowed public debt to increase over the forecast period, nor did they consider the potential for Government, or the economy as a whole, to become a net saver in anticipation of later demand for services. Such an analysis would involve more sophisticated work on the effect of Government on the wider economy, and the optimal balance of tax/debt/expenditure, than intended by this paper.

#### Demographic estimates

While the fact of a looming demographic bulge is without question, its size can only be projected, and the further out the projection the greater the degree of potential error. While the various model runs have all used Statistics New Zealand's population projections based on medium levels of mortality/fertility, different

<sup>&</sup>lt;sup>1</sup> NZ Institute of Economic Research, (June 1998): *Fiscal Modelling Scenarios: Report for the State Services Commission.* 

<sup>&</sup>lt;sup>2</sup> Cook, Diana (1997): *Fiscal Modelling, Report for Periodic Review Group,* NZ Institute of Economic Research

assumptions will produce quite different results. The World Bank<sup>3</sup> estimated that net immigration of 15,000 per year in New Zealand would reduce the tax requirement in the 2040s by 3 percent of GDP compared with assumed medium immigration of 5,000 per year. Similarly, moving from medium to high assumptions of mortality/fertility would reduce the tax requirement by 3.5 percent of GDP. Figure 1 shows Statistics New Zealand's projections<sup>4</sup> of New Zealand's demographic change. By the 2040s the ratio of the elderly to the working age population will have approximately doubled from around 20 percent to just over 40 percent.



#### Figure 1: Demographic Projections 1996 to 2051



Table one shows Statistics New Zealand's population projections used in the modelling. They show an increasing elderly dependency ratio, partly offset by a reduction in the youth dependency ratio. The effect on labour force participation is that it falls from 66 percent in 1996 to 56 percent in 2051.

Year	Рори	lation by Group	v Age	Labour Force	De	pendency 1	Ratio (%)	Labour Force Participation (%)	Median Age (Years)
		Numbe	er (000)		Youth	Elderly	Total	Labour	
-	0-14	15-64	65+	All age	0-14	65+	(0-14)+(65+)	Force	
				groups	15-64	15-64	15-64	15+	
1996	846	2,438	430	1,883	34.7	17.6	52.3	65.7	33.0
2001	873	2,579	457	2,018	33.8	17.7	51.5	66.5	34.5
2011	824	2,840	554	2,236	29.0	19.5	48.5	65.9	37.8
2021	794	2,932	755	2,316	27.1	25.8	52.8	62.8	40.1
2031	809	2,892	994	2,301	28.0	34.4	62.3	59.2	41.9
2041	784	2,873	1,149	2,301	27.3	40.0	67.3	57.2	43.9
2051	766	2,883	1,193	2,296	26.6	41.4	67.9	56.3	45.0

#### Table 1: Demographic Projections 1996-2051

Series 5: Assuming medium fertility, mortality and labour force participation, and long-term annual net migration of 10,000.

In the NZIER report, superannuation expenditure falls as a percentage of GDP up to 2001 and then is relatively stable until around 2010. From that point superannuation expenditure is projected to increase

<sup>&</sup>lt;sup>3</sup> Polackova, Hana, (1997): *Population Ageing and Financing of Government Liabilities in New Zealand*, World Bank Policy Research Working Paper 1703

<sup>&</sup>lt;sup>4</sup> Statistics NZ: Projections have as a base the estimated resident population at 30 June 1996.

sharply until the 2040s when it begins to level out. Health expenditure shows a more constant rate of increase.

The anticipated demographic change in New Zealand is less severe than in other OECD countries. Almost none of the OECD countries examined in a recent report<sup>5</sup> have more favourable demographic trends than New Zealand. This appears to be because the working age population (defined in the OECD report as from age 20 to the scheduled retirement age for public pensions) in New Zealand continues to grow to 2020 and shrinks slowly thereafter. In many OECD countries the working age population shrinks significantly from around 2010. In Italy, for example, this produces an elderly dependency ratio of more than 100 percent in the 2030s. New Zealand would also seem to have one of the strongest rates of overall population growth up to 2070. In general, New Zealand's relatively favourable demographic trends are usually accounted for by a mini baby-boom in the late 1980s.

#### Trends in expenditure

Total government expenditure has fallen as a percentage of GDP in each of the last seven years. Real expenditure (CPI deflated <sup>6</sup>) fell from 1993 to 1995, but Budget estimates <sup>7</sup> and projections show it increasing by between 1 percent and 3 percent per year up to 2001. In earlier papers we have modelled expenditure showing health, education, welfare payments, and debt servicing separately from residual core government expenditure as a proportion of total government expenditure has been falling since 1975 mostly due to increases in welfare payments. Since 1992/93 expenditure in core government has fallen from 8.6 percent of GDP to 6.7 percent in the 1997/98 year. The most recent Treasury estimates forecast it to fall to 5.8 percent of GDP in 2000/01. Core government expenditure also fell in real terms (CPI deflated) between 1993 and 1997 by 2.7 percent per year on average. Real expenditure in core government rose in 1998 but is projected to fall (to 91 percent of the 1993 level) by 2001. In contrast total government expenses for 2001 are projected to be 6 percent higher than their 1993 level. The graphs below illustrate the trends in government expenditure since 1979, (which has been calculated on a new basis since 1993 following financial management reform).



Figure 2: Components of Government Expenditure 1972-94 - Percent of GDP

Source: The Treasury (Table 2 series: discontinued 1994).

Figure 3: Components of Government Expenditure 1993-2001 - Percent of GDP

<sup>7</sup> The Treasury (1998) Budget Economic and Fiscal update

<sup>&</sup>lt;sup>5</sup> Roseveare et al, (1996): Ageing Populations, Pension Systems and Government Budgets: Simulations for 20 OECD Countries, Economics Department Working Papers no. 168.

<sup>&</sup>lt;sup>6</sup> The use of a CPI deflator shows real spending in terms of the opportunity cost to taxpayers, as opposed to specifically equating the volume of services purchased.



Source: The Treasury: Budget Economic and Fiscal Update 1998 (GAAP basis)

# **Core Government Capability**

The Commission undertook a literature survey <sup>8</sup> to examine whether continued fixed nominal baseline budget regimes in the core government could undermine capability. In brief, the survey examined the available information on government spending and productivity growth. There is very little reliable evidence on productivity in the New Zealand public sector, although there are some international estimates. These estimates suggest, in general and on average, that public productivity growth is positive but less than the economy-wide average. This may largely reflect the absence of pressure on the public sector in other jurisdictions. In New Zealand's devolved management system, however, we might expect the size of any gap between private and public sector productivity growth to be lower.

While some of the fall in core government spending, shown above, might represent productivity gains, it would require a generous estimate of productivity growth to explain the whole gap <sup>9</sup>. In the absence of substantive evidence on capability in core government, on productivity changes, and clear understanding of output levels or demand for core government goods and services, there is a risk that continued real reductions in core government expenditure will undermine capability. The literature survey also examined other evidence on the demand for core government services and concluded that demand has been at least constant over the period of declining expenditure.

There is no accurate or independent measure of the value of output in core government. In the absence of such data it is difficult to conclude whether government is revealing a preference for a lower volume of services from the core government sector, or if it is asking for more output from fewer inputs. (The data on inputs, such as wage costs, indicate that the real cost of these inputs has reduced considerably in real terms over the last five years.)

### **Caveats on the Model**

All the modelling work that is examined in this report uses the Treasury's medium term fiscal model in which economic growth is a function of improvements in productivity (usually estimated at 1.5 percent per year) and total hours worked. The NZIER estimates average economic growth of 1.7 percent per year over the forecast period. The labour force is projected to peak in 2019 and then gradually decline in size. As a result real economic growth falls below the average rate from around this time and is estimated at less than 1 percent per

<sup>8</sup> Progress Report: Strengthening Strategic Management (8 May 1998) State Services Commission.

Viv Hall has estimated that total factor productivity in New Zealand grew by 0.9% per annum between 1985 and 1995, see 'New Zealand's Economic Growth: Fantastic, Feeble, or Further Progress Needed?' *Victoria Economic Commentaries*, March 1996.

year from 2039. It is important to note that, with an assumption of constant productivity growth, all forecasts will show diminishing rates of economic growth as the ratio of dependents to the employed increases.

The long term fiscal model uses an accounting approach that has the advantage of being relatively simple and transparent. The model is, however, very sensitive to the assumptions made, in terms of both economic and policy assumptions, and the demographic projections. Therefore, this output should be viewed as a range of scenarios rather than forecasts. It does not consider other broader consequences, or how a particular outcome could be achieved by changes in policy. The scenarios described in the report place all the burden of addressing the presenting problems onto one of the areas examined: tax, social spending, or spending on core government. In reality, the policy options contain a mixture of these.

As fiscal outcomes are driven in part by economic variables, the model is not well suited to build in feedback effects from the spending levels to the economic variables. The NZIER report discussed the difficulty of estimating tax feedback and incorporated a relationship between the average tax rate and economic growth. Some key assumptions about how taxes impact on the economy had to be made to incorporate this effect. In addition, the report did not take any account of the impact of government expenditure or debt levels on the economy. The NZIER cautioned that the results should be treated as experimental. If, as suggested in the economic literature, higher taxes have a negative effect on economic growth, the fiscal problems will be exacerbated if the policy response to an ageing population is to raise taxes significantly. In contrast, the tax feedback effects of tax/GDP targets of either 20 percent or 30 percent increase the ability to fund higher levels of social spending, compared with the modelling without tax feedback, due to the increase in economic growth flowing from lower taxation.

# Summary of the NZIER Report

In summary, an analysis of the NZIER work reveals that there is a significant increase required in tax revenue to meet anticipated increases in demand for services, based on current policy settings. Figure 4 shows the results of the baseline scenario (scenario one). It shows that tax revenue would to fall from around 32 percent of GDP in 2001 to 29.8 percent in 2011. From that point tax revenue would increase to match growing social spending. This maintains a constant net debt/GDP ratio from 2002. Figure 5 shows an historical picture of tax/GDP ratios from 1972 to 1997.



Figure 4: Revenue Needed to Balance the Budget From 2001/02 (Scenario One) - Percent of GDP

Figure 5: Tax Revenue 1972-97 - Percent of GDP

Source: NZIER



Source: Statistics NZ, Government Financial Statistics

An important feature of the modelling is that the assumption that the demand for core government services is relatively constant. The risk in this assumption is that the reductions in core government expenditure over the past decade may have undermined capability in this area to the extent that current levels of service cannot be maintained into the future without increasing real expenditure.

#### Effect of reducing tax/GDP

The scenarios used for the purposes of analysis were based on comparing the results of a baseline case with those where either social spending or core government spending were constrained by a tax/GDP target of 20 percent. The core government scenario is discussed below. Where the constraint was affected by cutting social spending, the tax target of 20 percent implied reducing social spending to 18 percent of GDP by 2051, from the current level of around 25 percent. This was compared to social spending of 35 percent (with no tax feedback), thereby implying an effective cut in per capita social spending of more than half. The NZIER also ran this scenario with a 30 percent tax/GDP target. Under this assumption social spending reached 28 percent of GDP by 2051.

Neither of the scenarios, which showed either social spending or core government spending as the residual, allowed for increasing debt above the target of effective net debt equalling zero. While this constraint made some of the reductions required under the tax/GDP targets appear more dramatic, it did not have a significant effect on the result at the end of the forecast period.

#### Expenditure in core government

One of the findings of the NZIER report was that core government expenditure has already been reduced to such a level that attempts to use further cuts in this area produce almost negligible gains in reducing the overall tax requirement. The NZIER report projected that if other expenditure followed the assumed growth path and core government spending was constrained within an overall tax/GDP target of 30 percent, core government spending would fall below zero by 2032. When a tax/GDP target of 20 percent was used, core government spending was negative from 2006. The main conclusion regarding core government expenditure is that while restraining expenditure growth in this area can have a significant effect on the long term tax requirement, making expenditure cuts will have little effect.

The modelling showed that if growth in real core government spending can be limited to the rate of overall population growth then this expenditure will fall as a percentage of GDP from 6.5 percent in 2001 to 3.4 percent in 2051. This fall contributes directly to a lower tax requirement. It also shows that continued pressure on nominal baselines in core government has only limited potential to contribute to off-setting demographic pressure on social spending. The pressure on core government is also indicated by downward pressure on wages in the Public Service. From December 1992 to March 1998 salaries and wages in the Public Service moved by a total of 5.6 percent, as measured by Statistics New Zealand's Labour Cost Index. This compares to 8.5 percent for the economy as a whole.

#### Analysis of other model runs

The authors also examined three other sources of long term modelling of government expenditure. These were reports from:

- the Investment Savings and Insurance Association <sup>10</sup> (ISI) (which presented the findings of modelling it commissioned from Infometrics)
- the World Bank <sup>11</sup>
- the PRG report <sup>12</sup> (based on modelling by the NZIER, which was updated in their report to SSC).

While some of the assumptions used in these reports differ slightly, the findings are similar. The Infometrics and PRG reports both estimated that government spending (or total revenue) would have to rise to just over 41 percent of GDP by 2050/51, under a baseline scenario. The World Bank report estimated this figure at just over 42 percent based on a higher assumption of growth in per capita education and health spending. For the baseline scenario (scenario one), the NZIER estimated that total revenue (and expenses, under the balanced budget approach) would increase to 38.8 percent of GDP. The main explanation for the difference is that Infometrics, PRG and World Bank modelling assumed that core government spending would increase at the rate of economic growth.

The specifications given to the NZIER assumed that core government spending would be limited to population growth. This was on the basis that some elements of core government spending (such as policing) are linked to overall demographic change, but otherwise there is no reason to assume that economic growth would increase the demand for such services. In addition, runs modelled on an assumption of growth in core government at the rate of economic growth the NZIER model runs estimated that tax revenue would increase to 40 percent of GDP (with total revenue increasing to just under 42 percent).

### Summary of the trade-offs

The results of the NZIER work imply that there is insufficient expenditure in the core government area to enable cuts in this expenditure to have any effect on the long term fiscal position. This left the scenarios of increasing tax to meet the anticipated increase in demand, or making changes to social spending. The NZIER also noted that while it is difficult to estimate the size of feedback effects from taxation to the rest of the economy, the literature suggests that dealing with the ageing population by putting up tax rates has a negative effect on economic growth.

Based on an assumption that the relative levels of service and income that are currently provided are continued, and therefore that the trade-offs are between alternative means of provision, the model runs suggest the following broad trade-offs:

- government could gradually increase taxes to 37 percent of GDP by the 2040s after allowing tax revenue to fall to 30 percent around 2011
- government could reduce tax/GDP to 30 percent by 2010 and gradually transfer around 20 percent of social expenditure (equivalent to 7 percent of GDP) from public to private financing by 2051, and hold real growth in core government spending to the rate of population growth

<sup>&</sup>lt;sup>10</sup> Investment Savings and Insurance Association of New Zealand Inc. (1998): *The ISI Report on Retirement Savings: A Wake-up Call*, ISI.

<sup>&</sup>lt;sup>11</sup> op cit.

op cit.

• government could reduce tax/GDP to 20 percent by 2010 and transfer around 48 percent of social spending (equivalent to 17 percent of GDP) from public to private financing by 2051, and hold real growth in core government spending to the rate of overall population growth.

### Annex A: Government Facts at a Glance

There are many ways of looking at the impact of government on the economy. The following tables and graphs present a picture of government's various roles from both an historical and a forward looking perspective. They draw on data from both the Treasury and Statistics New Zealand's National Accounts (SNB) series.

The National Accounts figures are broken down into market and non-market sectors. That is, between those goods and services paid for by government and those goods and services produced by government owned organisations (such as SOEs) that are traded in a market. All the National Accounts measures shown exclude transfer payments, GST and financial transactions (such as debt servicing). They include indirect taxes, such as excise duties and road user charges.

#### Government as a borrower

Net Crown Debt - Percent of GDP



Source: The Treasury

#### Government as an investor

Central Government Gross Fixed Capital Formation - Percent of GDP



Source: Statistics NZ (National Accounts)

#### Government as a consumer

Central Government Final Consumption Expenditure - Percent of GDP



Source: Statistics NZ (National Accounts)

Final Consumption Expenditure measures the value of goods and services consumed by government. It includes intermediate consumption (goods and services purchased from outside central government), compensation of employees and indirect taxes, and excludes market transactions (third party revenue). It also excludes transfer payments to individuals (which in 1997 came to \$13.8 billion) and financial transactions (\$3.4 billion). While the largest transfers were in social welfare (\$10.9 billion), a further \$2.9 billion of transfers were from other areas of government. Eighty percent of these were in health.<sup>13</sup>

#### Government as a producer

Central Government Gross Output - Percent of GDP



Source Statistics NZ (National Accounts)

Gross Output broadly measures the value of goods and services produced by Government owned organisations. It includes consumption expenditure and market transactions. It does not include transfers to individuals or financial transactions (such as debt servicing). In the central government market sector the value of gross output is equal to total revenue (less the cost of financial transactions). It includes an operating surplus (profit) as well as the cost of intermediate and direct inputs.

In the central government non-market sector, total outlays is the sum of inputs and there is neither an operating surplus nor are there market transactions. For historical reasons non-market output does not include any depreciation of capital. This will change when the new system of national accounts (SNA 93) is introduced.

Central Government Total Value Added - Percent of GDP

13

Statistics NZ: Crown Accounts



Source: Statistics NZ (System of National Accounts), GDP by Production Group

The value added measure of GDP (GDP by production group) excludes intermediate consumption from the Gross Output. As a result it is almost entirely made up of compensation of employees.

#### Government as a regulator

Although no New Zealand figures are available, international estimates have placed the cost of regulation at 4 <sup>14</sup>-10 percent <sup>15</sup> of GDP. The following two tables support the preceding graphs. The figures shown refer to total Central Government (market and non-market).

<sup>&</sup>lt;sup>14</sup> Report to Congress on Cost and Benefits of Federal Regulations, September 30 1997, Office of Management and Budget, Washington D.C.

 <sup>&</sup>lt;sup>15</sup> OECD, (1997): *Competition and Regulation*, Competition and Regulatory Quality and Public Sector Reform Project, Working Paper No. 2

Government as a Producer <sup>1</sup>			Government as	an Investor <sup>1</sup>	Governme	nt Revenue <sup>2</sup>	Government as a Consumer <sup>1</sup>		Government as a Borrower <sup>2</sup>			
Year	Value A	dded	Gross Output	Gross Fixed Capital I	Gross Fixed Capital Formation (GFCF)		Fross Fixed Capital Formation (GFCF) Tax Reve		Fax Revenue Total Revenue		sumption are (FCE)	Net Crown Debt
	% of Total Value Added	% of GDP	% of GDP	% of Total GFCF	% of GDP	% of GDP	% of GDP	% of Total FCE	% of GDP	% of GDP		
1979	21.8	21.5	34.1	28.7	6.6	29.4	31.9	19.3	15.0	19.0		
1980	22.2	21.9	33.7	22.7	4.7	30.4	33.1	19.0	14.7	20.5		
1981	22.9	22.7	35.3	21.7	4.5	30.7	33.1	19.9	15.8	25.7		
1982	22.4	22.1	34.9	22.5	5.3	31.5	33.6	20.3	15.8	32.1		
1983	22.2	21.9	36.0	26.7	6.6	32.1	33.5	19.9	15.6	35.1		
1984	21.5	21.2	34.9	27.6	6.8	29.9	32.0	19.1	14.5	46.1		
1985	20.3	20.0	34.0	20.9	5.3	30.3	31.9	18.3	13.9	49.1		
1986	21.0	20.7	36.3	25.6	6.8	31.4	34.9	18.1	14.1	56.1		
1987	23.0	22.0	37.5	22.2	5.0	31.8	34.7	18.8	14.4	46.7		
1988	24.1	22.4	37.2	19.0	4.1	34.9	38.3	18.9	14.6	48.6		
1989	23.1	21.7	34.5	17.4	3.4	34.4	38.3	18.9	14.6	53.7		
1990	21.5	19.9	30.7	17.5	3.5	37.0	40.1	18.7	14.6	48.1		
1991	19.3	17.8	27.7	19.8	3.8	35.7	40.2	18.5	14.8	53.2		
1992	17.7	16.4	25.4	14.7	2.3	34.4	38.2	18.4	14.8	51.5		
1993	16.8	15.5	24.6	12.0	2.0	34.8	37.0	18.5	14.7	47.5		
1994	15.3	14.2	21.9	7.8	1.4	34.9	36.6	17.7	13.5	40.3		
1995	14.3	13.2	20.8	8.2	1.7	33.3	38.0	16.4	12.4	33.1		
1996				6.9	1.4	33.9	37.0	16.2	12.4	27.9		
1997				8.1	1.7	31.8	34.7	16.2	12.4	25.4		

The following two tables support the preceding graphs. The figures shown refer to total Central Government (market and non-market)

Note 1 Statistics NZ, National Accounts. Value added information (GDP by production group) is not yet available for 1996 or 1997

Note 2 1979-94, The Treasury, Historical Table 2 series: 1995-97, Statistics NZ, Government Financial Statistics. While total revenue includes income from SOEs and other trading organisations, it does not include the total revenue of those organisations.

	Government as a Spender <sup>1</sup>							
Year	Core Govt	Education	Social Services	Health	Debt Servicing & Other	Financial Net Expenditure <sup>2</sup>	Operating Balance	
			% of GDP			% of GDP	% of GDP	
1979	12.5	5.5	10.9	5.8	5.7	36.0	-8.5	
1980	10.7	5.1	11.0	5.7	5.8	35.2	-5.2	
1981	10.8	5.6	11.3	5.9	6.1	37.0	-6.6	
1982	11.8	5.4	10.9	5.7	6.4	37.3	-6.5	
1983	11.4	5.2	11.9	5.6	6.2	38.1	-6.9	
1984	11.7	4.8	11.6	5.2	7.6	38.5	-8.9	
1985	10.4	4.4	11.3	4.9	7.9	36.9	-7.1	
1986	9.7	4.4	12.0	5.1	7.8	37.5	-4.1	
1987	9.7	4.7	11.8	5.4	6.6	38.1	-9.7	
1988	9.3	5.1	12.6	5.5	5.0	40.4	-1.0	
1989	9.1	5.4	13.7	5.5	2.1	39.8	0.0	
1990	9.5	5.7	14.6	5.3	0.9	41.4	1.7	
1991	9.6	6.1	14.3	5.5	1.3	41.9	2.4	
1992	8.4	6.2	14.7	5.3	5.2	40.4	-1.7	
1993	8.6	6.0	14.3	5.2	2.5	39.4	0.0	
1994	7.9	5.7	13.0	5.1	4.4	36.1	0.8	

Note 1 The Treasury, Table 2 historical series (discontinued 1994), core government includes administration, foreign relations, development of industry, and transport and communications

Financial Net Expenditure subtracts (total lending minus repayments from total net expenditure) and provides a more robust estimate of total expenditure over time. Note 2

# Annex B: Fiscal Outlook

Percent of GDP	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99	1999/2000	2000/01
	Actual	Actual	Actual	Actual	Actual	Actual	Forecast	Projected	Projected
Social security and welfare	16.2	14.2	13.5	13.3	13.2	13.2	13.2	12.7	12.3
Health	5.6	5.7	5.6	5.7	5.9	6.1	6.2	5.9	5.7
Education	6.1	5.7	5.5	5.4	5.6	5.8	5.7	5.5	5.3
Finance costs	5.3	4.7	4.3	4.0	3.2	2.8	2.5	2.5	2.2
Core Government comprising	8.6	7.5	6.7	6.8	6.6	6.9	6.6	6.1	5.8
Core Government services	2.0	2.1	1.5	1.7	1.7	1.6	1.6	1.5	1.4
Law & order	1.4	1.4	1.4	1.3	1.3	1.4	1.3	1.3	1.2
Defence	1.6	1.3	1.2	1.1	1.0	1.1	1.1	0.9	0.9
Transport & communications	1.0	1.0	0.9	0.9	0.9	0.9	0.9	0.9	0.8
Economic & industrial services	1.0	0.9	0.8	1.1	0.8	0.9	0.8	0.8	0.7
Primary services	0.5	0.4	0.4	0.3	0.4	0.5	0.3	0.3	0.3
Heritage, culture & recreation	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Housing & community development	0.3	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Other	0.3	0.0	0.2	0.1	0.1	0.2	0.1	0.1	0.1
Net foreign exchange losses/(gains)	0.4	(1.1)	(0.6)	(0.7)	0.0				
Provision for future initiatives						0.0	0.3	1.0	1.7
Contingency expense provision						0.0	0.1	0.1	0.1
Total Expenses	42.1	36.7	35.1	34.6	34.3	34.7	34.5	33.8	33.1
Less									
Foreign exchange (losses)/gains	(0.4)	1.1	0.6	0.7	(0.0)	0.0			
Unfunded GSF liability revaluation	(0.9)	(0.1)	(0.2)	(0.2)	0.0	0.2	(0.0)	(0.0)	(0.0)
NPF guarantee revaluation			0.0	0.0					
Adjusted Total Expenses	40.9	37.7	35.6	35.0	34.3	35.0	34.5	33.7	33.1
Total Revenue	40.0	37.4	38.9	38.2	36.2	36.5	34.9	34.8	34.8
Total Revenue less Total Expenses	(2.1)	0.7	3.8	3.6	1.9	1.8	0.4	1.0	1.7
SOEs and Crown Entities	1.0	0.3	(0.6)	0.1	1.0	1.5	1.4	1.3	1.4
Dividends & other distributions	0.0	0.0	0.0	0.0	(0.9)	(0.4)	(0.5)	(0.5)	(0.5)
Operating Balance	(1.1)	0.9	3.1	4.3	2.0	2.8	1.3	1.8	2.6
Total Assets less Total Liabilities	(10.3)	(7.0)	(3.6)	3.6	7.8	10.5	11.3	12.5	14.5
Net Crown Debt	49.9	43.8	37.6	31.2	26.7	24.7	23.7	21.5	19.2

Source: The Treasury 1998, Budget Fiscal and Economic Update (GAAP basis)

\$ million	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99	1999/2000	2000/01
	Actual	Actual	Actual	Actual	Actual	A c tu a l	Forecast	Projected	Projected
Social security and welfare	12,071	11,479	11,724	12,240	12,620	13,042	13,677	13,960	14,197
Health	4,168	4,602	4,886	5,228	5,626	6,001	6,444	6,516	6,565
Education	4,539	4,627	4,803	4,949	5,335	5,756	5,953	6,094	6,148
Finance costs	3,961	3,788	3,757	3,703	3,072	2,758	2,564	2,695	2,597
Core Government comprising	6,394	6,041	5,781	6,226	6,288	6,769	6,804	6,659	6,683
Core Govt services	1,464	1,723	1,340	1,565	1,667	1,624	1,624	1,628	1,623
Law & order	1,054	1,150	1,190	1,234	1,281	1,342	1,395	1,405	1,395
Defence	1,173	1,049	1,013	970	946	1,067	1,115	1,020	1,044
Transport & communications	781	815	796	821	888	903	933	939	974
Economic & industrial services	744	711	673	997	763	875	876	833	822
Primary services	372	299	309	304	351	446	329	332	338
Heritage, culture & recreation	310	241	233	247	277	299	327	302	290
Housing & community development	260	39	46	40	47	47	51	52	52
O the r	236	14	181	48	68	166	154	148	145
Net foreign exchange losses/(gains)	296	(898)	(551)	(603)	12	(8)			
Provision for future initiatives							290	1,090	1,990
Contingency expense provision							100	100	100
Total Expenses	31,429	29,639	30,400	31,743	32,953	34,318	35,832	37,114	38,280
Less									
Foreign exchange (losses)/gains	(296)	898	551	603	(12)	8			
Unfunded GSF liability revaluation	(664)	(111)	(155)	(226)	4	232	(48)	(40)	(24)
NPF guarantee revaluation			40	15					
Adjusted Total Expenses	30,469	30.426	30.836	32.135	32,945	34.558	35,784	37.074	38,256
Total Revenue	29,838	30,183	33,648	35,031	34,778	36,047	36,257	38,229	40,206
Total Revenue less Total Expenses	(1,591)	544	3,248	3,288	1,825	1,729	425	1,115	1,926
SOEs and Crown Entities	775	211	(553)	98	988	1,450	1,403	1,402	1,611
Dividends & other distributions					(905)	(401)	(523)	(496)	(553)
Operating Balance	(819)	755	2,695	3,903	1,908	2,778	1,305	2,021	2,984
Total Assets less Total Liabilities	(7,695)	(5,628)	(3,159)	3,344	7,470	10,415	11,720	13,741	16,725
Net Crown Debt	37,196	35,423	32,581	28,637	25,610	24,362	24,572	23,625	22,204

Source: The Treasury 1998, Budget Fiscal and Economic Update (GAAP basis)