

CALEDON



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**To Pay or Not to Pay:
Should the Federal Government
'Pay Down' its Debt?**

by

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introduction

Canadian governments have spent the past several years tearing down much of our social security system. The main rationale for the demolition was fiscal; we could not, it was claimed, afford our social programs any more. Now the federal government's battle against its deficit has been fought and won, primarily through the sacrifices of the poorest and most vulnerable Canadians. Today, we head into a new era of federal budget surpluses. And there are choices that must be made.

Canada can decide to reconstruct a new and modern social security system from the ashes of the old. Despite the pain and human suffering of the past years, there are some hopeful signs that a positive reconstruction is now possible: The federal and provincial governments are working together cooperatively on new social programs, notably the new National Child Benefit. They have agreed to a *National Framework and Disability Income and Supports*. There is talk of a national pharmacare and home care program.

There are also negative signs. Employment Insurance has been tightened to the point where fewer than half of unemployed Canadians qualified for benefits in 1996. Ontario has slashed its welfare rates, weakened its appeal system and introduced workfare. Social housing is at a standstill in most provinces, exacerbating homelessness in many urban areas. Income tax brackets and credits are only partially indexed, with the result that increasing numbers of poor Canadians must pay taxes at lower real levels of income, while their child benefits and GST credits shrink due to the silent but steady effects of inflation [Battle 1997].

To the extent that we do *not* use potential budget surpluses to finance new programs or tax reductions (such as a tax credit for low-income taxpayers to offset the effects of inflation), there is only one other choice: The budget surplus will go towards paying down the debt. While arguments have been made in favour of this latter choice, they too often have the feel of theological debates – as if virtue resides in the quickest possible debt reduction, regardless of the fiscal consequences. But how

quickly to pay down the debt is a financial and economic decision. Rather than being based on prejudices and platitudes, it should be made after a good, hard look at the numbers. Any argument for debt repayment that does not include a quantitative assessment of the fiscal impact of the recommendation should be disregarded as less than a serious, objective appraisal of the choices available.

This report uses a fiscal model of federal financing to create alternative scenarios for future budget surpluses and the debt burden. The purpose of this report is to shed some badly-needed factual light on the options facing us by, at the very least, providing an estimate of the orders of magnitude involved. If we decide to use the surplus to pay down the debt instead of spending some of it for programs and tax cuts, how much less debt will Canada have? What will we gain or lose in indebtedness as a consequence of policy choices to spend more, or less, on programs, transfers and tax cuts?

the model

The fiscal model presented in this report starts with a 'base case' of maximum debt reduction and then generates three scenarios to see how much they vary from the base case – i.e., what happens if we do *not* undertake maximum debt reduction. The scenarios show alternative federal fiscal balances to the end of fiscal year 2008-09 and provide various measures of debt burden. A number of simplifying assumptions are made throughout for ease of calculation. The objective of the model is not to make precise forecasts of the future; rather, it is to estimate broad orders of magnitude, so these simplifying assumptions are consistent with the goal of the model. In any case, sensitivity analysis is provided for all scenarios. The details of the base case and the three scenarios are set out in Appendix 1.

The model begins with an estimate of this fiscal year's (1997-98) balances. The federal government has not yet published forecasts of its final figures for this fiscal year, so the estimates are derived from the 1997 Budget, updated using the

1996-97 actual results and the 1997-98 results up to September 1997 as reported in the most recent *Fiscal Monitor* [Canada 1997a; 1997c]. The table below sets out the model's estimates for 1997-98 and compares them to previous Budget estimates and the actual results for 1996-97. The model then projects from 1998-99 through 2008-09 according to assumptions about three types of variables: policy changes such as program spending increases and tax cuts, economic assumptions and assumptions regarding fiscal conditions.

The contingency reserve, which has been a feature of all of the present government's Budgets, never has been spent. The contingency reserve is treated here as a 'zero' expenditure item. Were the contingency reserve to be spent, it would have to be added into the expenditure level.

With respect to policy changes, the model allows for the assessment of the fiscal impact of policy decisions about spending by including variables for an increase or decrease in federal transfers to individuals, program spending and taxes. In the model, for simplicity, these specific measures are always put into place in the 1998-99 fiscal year, but continue in future years. For example, if in a scenario we want to look at the fiscal impact of a decision to spend an additional \$1 billion on programs, this measure is 'implemented' in the 1998-99 fiscal year; but the \$1 billion extra spending continues into the future, esca-

lated according to the other assumptions made in that particular scenario.

The model also provides variables to allow for alternative regular annual increases (e.g., full or partial indexation) in spending on programs, transfers to people and transfers to the provinces. These annual increases 'come into effect' in 1999-2000, since for 1998-99 the model allows the assumed new policy measures as noted above (with respect to transfers to provinces, the model assumes the previous schedule will be followed in 1998-99).

This is a fiscal model, not an economic model, so the economic assumptions behind it have to be set, rather than being made within the model itself. However, only two economic assumptions are required – the rate of growth in the Gross Domestic Product (GDP) and the rate of inflation. The model provides for assumptions regarding real growth in GDP for both 1998-99 and 1999-2000 but, again for simplicity, allows for only a single rate of growth for each of the remaining nine years of the projection (i.e., from 2000-01 through 2008-09). A single rate of inflation is assumed for the whole period.

There are also two important fiscal assumptions. One is the 'elasticity of revenue to GDP growth' – i.e., how much does revenue automatically increase or decrease whenever GDP increases or decreases? This assumption is needed to calculate the amount of

Expenditures (\$ billions)	1996 Budget		1997 Budget		Actual	Model
	1996-97	1997-98	1996-97	1997-98	1996-97	1997-98
Program spending	109.0	106.0	109.0	105.8	104.8	105.8
Public debt interest	47.8	49.0	45.5	46.0	45.0	44.2
Total spending	156.8	155.0	154.5	151.8	149.8	150.0
Revenue	135.0	141.0	135.5	137.8	140.9	148.0
Deficit	(21.8)	(14.0)	(19.0)	(14.0)	(8.9)	(2.0)
Debt	692.7	619.7	593.3	607.3	583.2	585.2
GDP	806.0	841.0	797.0	830.8	807.0	846.0
Debt as % of GDP	85.94%	73.69%	74.40%	73.10%	72.25%	68.94%

Source: Canada 1997a: Table 1.3; Canada 1996: Table 1.5; Canada 1997c: Table 3.1.

revenue collected as a result of change in the economy. The second fiscal assumption is the average rate of interest on federal government debt. The model provides the capacity to assume lower or higher interest rates than today, applying that adjusted interest rate across the whole projection period as a new average rate on government debt. However, the average rate of interest on federal public debt does not change rapidly since much of the federal debt is now in longer-term instruments; the amount the government has to pay on this part of the debt remains fixed even if interest rates change. Nevertheless, there will be some change as old debt matures and is turned over.

The model works by taking the values assigned in these assumptions and then calculating federal government spending and revenue. (The model simplifies by calculating public debt interest as a payment on the total debt for the previous fiscal year, rather than the average of the debt at the beginning of the year and the end of the year. This means the model slightly overstates public debt interest.) The annual deficit or surplus is the difference between spending and revenue. Total debt in any given year is last year's debt adjusted for this year's deficit or surplus. The model records the dollar value of the debt in each year up to 2008-09 and also converts this to constant 1997 dollars for each scenario, so that the debt in 2008-09 is comparable to the 1997-98 debt level in real terms, regardless of the assumed rate of inflation.

The model then uses the economic assumptions to estimate GDP and calculates the ratio of debt to GDP. The debt-to-GDP ratio is the most important measure of 'debt burden.' A large debt in a very large economy does not matter much. For example, our 1997-98 \$583 billion debt would be trivial in the US economy. However, the same debt in Canada amounts to 69 percent of our GDP and so constitutes a heavy debt burden.

the base case – no new commitments, all surplus goes to pay down debt

The base case is a maximum 'reasonable' debt reduction scenario, given current federal commitments and assuming no further cutbacks or reduc-

tions in real terms. In other words, it is more or less the budgetary *status quo* projected to 2008-09, with no heroic measures to cut costs – but no substantial new policy initiatives either.

The base case assumes that Ottawa uses as much as possible of its potential budget surplus every year to 'pay down the debt.' The base case provides for an increase of \$1 billion each in transfers to persons, program spending and tax cuts. These increases are meant to accommodate generously decisions already made, such as the commitment to increase the Canada Child Tax Benefit (in Public Accounts, the Child Tax Benefit is recorded as a revenue reduction but here is treated as an increase in personal transfers), program spending such as the response to the *Report of the Royal Commission on Aboriginal Peoples*, and tax cuts such as the reduction in Employment Insurance contributions.

It is assumed that federal spending on transfers to the provinces increases by 1.5 percent a year, approximately Canada's annual rate of population growth, plus the rate of inflation so that this form of spending remains constant in real *per capita* terms after 1998-99. It is assumed that transfer payments to persons and program spending increase with the rate of inflation plus the real rate of growth in GDP, thus allowing these categories of spending to maintain their value as a proportion of the economy. These assumptions build in a realistic amount of flexibility for government spending decisions since it is unlikely that cuts in real *per capita* spending, as have been experienced in the last few years, could continue for more than another decade. For example, at some point the real wages of public servants at least will stabilize in relation to the inflation rate, so this source of continued savings eventually will disappear.

The economic assumptions in the base case reflect the lower end of most forecasts. We conservatively assume real GDP growth of 3.0 percent in 1998-99 and 2.8 percent in 1999-2000. As of January 15, 1997, the Bank of Nova Scotia, the Canadian Imperial Bank of Commerce and Scotia-McLeod were forecasting real GDP growth rates of 3.0, 3.3 and 4.0 percent, respectively, for 1998 [Little 1998]. A real growth rate of 2.5 percent a year is assumed from 2000-01 to 2008-09 as a modest long-term level

of growth. The inflation rate is assumed to be 2.0 percent a year over the whole period, the mid-range of the Bank of Canada's target range. If anything, these forecasts err towards caution; if the economy were to perform better, debt burdens would be even lower.

The base case assumes an 'elasticity of revenue to GDP growth' of unity (i.e., 1.0). This figure is based on estimates given in the federal government's 1997 Budget [Canada 1997a: 136], according to which elasticity in the first year is less than unity but rises substantially in the next years, as well as a review of past revenue increases. This is a conservative assumption since, given the partial indexation or non-indexation of the various elements of the income tax system, normally we would expect elasticity greater than unity. Like the economic assumptions, the elasticity figure is meant to err on the side of fiscal caution.

In the base case, the interest rate on federal government debt is assumed to average 7.25 percent over the whole period. This figure is lower than the current average of 7.8 percent, but is consistent with current trends. While the interest rate on new debt may be lower than 7.25 percent, the interest rate on new debt will not have too much immediate impact on the average interest actually paid since much of the rate on current debt already is determined in long-term debt instruments.

The base case result is that *by 2008-09, the federal government would be running a surplus of \$56 billion with a debt of 20 percent of GDP*. Figure 1 shows the trend. This debt burden would be the second-lowest since the Second World War, next to the 18 percent debt-to-GDP ratio in 1974-75. In short, even with these cautious economic assumptions and realistic flexibility in spending, Canada is on a path to extraordinarily rapid reduction in federal debt.

Moreover, even the base case result of 20 percent is, by international standards, an overestimate of Canada's debt burden. The model in this report is presented on a Public Accounts basis to reflect the way the federal Budget is written, reported and debated. However, international comparisons are

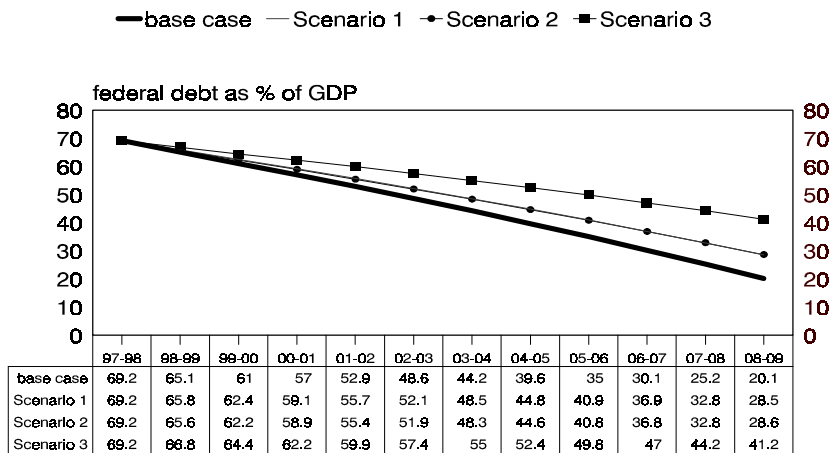
made on a National Accounts basis. The National Accounts and the Public Accounts differ mainly in that the former do not include federal pension liabilities as part of the tally of total debt, while the latter do. The National Accounts calculation of federal public debt usually has been approximately 75 percent of the figure for Public Accounts debt.

In the base case, Canada would have about a 15 percent federal debt-to-GDP ratio on an internationally comparable National Accounts basis. Depending upon what happens to provincial debt – it too should fall dramatically from its current level of approximately 10 to 15 percent of GDP on a National Accounts basis – the base case would put Canada's total government debt in 2008-09 at 21 percent of GDP or lower than all G7 nations at their current levels except for Japan. Figure 2 compares Canada's base case debt-to-GDP ratio (in 2008-09) to the G7 countries (in 1995).

As set out in Appendix 1, sensitivity analysis of the base case results shows that the debt-to-GDP ratio would remain among the lowest of today's debt burdens in the G7 nations even if the assumptions are changed. If the interest rate is lower or higher by one percentage point, the debt-to-GDP ratio in 2008-09 is 16 percent or 26 percent, respectively. If elasticity of revenue is 0.1 less or 0.1 more than the 1.0 assumed, the debt ratio in 2008-09 is 26 percent or 16 percent, respectively. Were inflation to double from the assumed rate of 2.0 percent or alternatively fall to zero, this would have a somewhat larger impact on the results – a debt-to-GDP ratio of 7 or 37 percent, respectively, in 2008-09. Finally, if GDP growth were one percentage point lower or higher than the assumed growth of 2.5 percent over the projection period, the result would be a debt burden ratio of 30 percent or 11 percent, respectively.

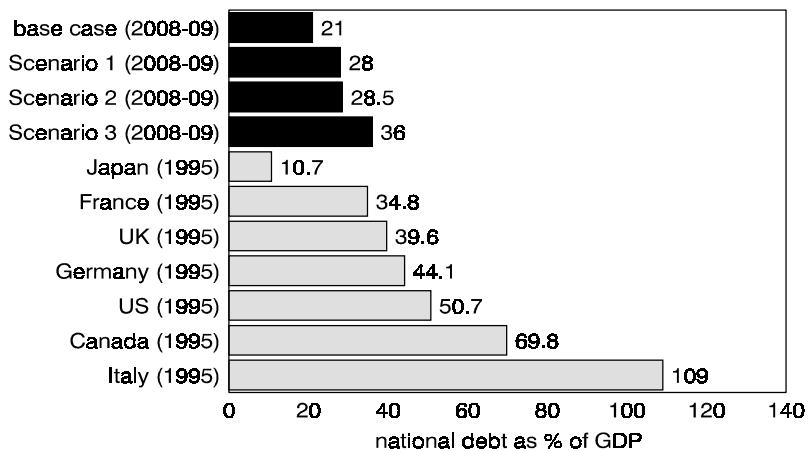
In reality, most of these movements likely would offset each other. Thus, for example, if there were a fall in growth of GDP to 1.5 percent, interest rates also likely would fall. A one percentage point decline in interest rates combined with a one percentage point decline in long-term growth more than offset each other, resulting in a debt-to-GDP burden of 18 percent in 2008-09 despite the lower rate of growth.

Figure 1 FEDERAL DEBT TO GDP RATIOS (PUBLIC ACCOUNTS BASIS), BASE CASE AND SCENARIOS, 1997-98 TO 2008-09



data: Caledon Institute of Social Policy

Figure 2 NATIONAL DEBT TO GDP RATIOS (NATIONAL ACCOUNTS BASIS), BASE CASE AND SCENARIOS (2008-09) VERSUS G-7 COUNTRIES (1995)



data: Caledon Institute of Social Policy, Department of Finance Canada

Should the federal government continue its present policies with only the modest spending commitments noted above, the result would be an extraordinarily low debt-to-GDP ratio, under most reasonable assumptions. What would happen if Ottawa decided to spend more?

scenario 1 – spend more and cut taxes, everything else the same

This scenario estimates the effects of a substantial increase in spending, with no other changes from the base case. To do this, the base case is left as is except we introduce tax cuts of \$3 billion, additional personal transfers of \$4 billion and a \$2 billion increase in program spending. These amounts should be sufficient to protect many low-income Canadians from paying higher income taxes due to inflation and to fund a more generous Child Tax Benefit. This scenario also would provide some additional program resources.

The grand effect on the debt burden as a consequence of all this spending is not very grand at all. *Rather than sending the debt once more soaring, there is only a slight slowdown in the rate of decrease in the debt burden, compared to the base case.* This scenario raises the debt-to-GDP ratio in 2008-09 to 29 percent – nine percentage points above the base case. Figure 1 illustrates the projection. This debt-to-GDP ratio still would be among the lowest in Canadian history. It also would be lower (on a National Accounts basis), even when the provinces are included, than any other G7 nation today except Japan. Canada's debt burden would remain on a strong downward trend.

Of course, were there to be spending of this amount, the underlying economic picture might be expected to change somewhat – slightly higher growth, at least in 1998-99 and 1999-2000, and possibly a little more inflation and somewhat increased interest rates. The underlying economic assumptions were fixed in this scenario to show how responsive the debt burden is to substantial new spending, without any other adjustment. Appendix 1 provides a sensitivity analysis of scenario 1 to changed assumptions.

scenario 2 – spend even more and cut taxes even more, with slightly higher growth and inflation

Scenario 2 includes tax cuts of \$4 billion, personal transfer increases of \$5 billion and \$3 billion additional program spending. Scenario 2 represents a more generous response to rebuilding the social security system and meeting other needs for social and public investment. Nevertheless, scenario 2 remains fiscally conservative, as Ottawa still would run growing budget surpluses after 1999-2000 and continue to reduce its debt burden.

The amount of additional spending and tax cuts provided in scenario 2 likely would be sufficient to protect low- and modest-income Canadians from the effects of inflation on their income taxes and GST credits. At the same time, the maximum Canada Child Tax Benefit could be increased substantially to the vicinity of \$4,000, providing for the basic incremental costs of raising a child in a low-income household, as recommended by the Caledon Institute of Social Policy [Battle and Mendelson 1997]. There would be sufficient funds available to respond more fully to the *Report of the Royal Commission on Aboriginal Peoples* and money left over for other priorities.

With no change in any of the economic assumptions, scenario 2 would result in a debt-to-GDP ratio of 33 percent in 2008-09, still among the lower ranks in the G7 today (adjusted to a National Accounts basis and adding provincial debt). However, scenario 2 represents a less restrictive fiscal policy than the base case, so it is unlikely that the underlying economic indicators would remain unchanged in reality. What are the results if we vary the economic assumptions to be slightly more optimistic?

For purposes of illustration, we assume that real growth is 3.5 percent for 1998-99, 3.0 percent for 1999-2000 and 2.7 percent each year from 2000-01 through 2008-09. Inflation also is assumed to be a little higher, at 2.2 percent, reflecting the stronger growth figures. We assume average interest rates on public debt lower than today's but higher than the base case – 7.5 percent compared to 7.25 percent in the base case. None of these assumptions is the least

bit wild: Rather, they are more consistent with most forecasts than the cautious assumptions used in the base case.

Given these modest adjustments to the economic assumptions, what are the implications of this about-face in fiscal policy? Would Canadians be driven once again to the edge of financial disaster by the profligacy of the federal government? As previously noted, even without any adjustment in economic assumptions, this scenario would see debt levels reduced to low levels. But with more hopeful economic assumptions, scenario 2 results in a debt burden of 29 percent in 2008-09 – only nine percentage points higher than the base case and the same as scenario 1. Figure 1 gives the trend; note that scenarios 1 and 2 do not show up separately on the graph because they are so close.

The sensitivity analysis provided in Appendix 1 shows what happens to scenario 2 when the economic and fiscal assumptions are varied. For example, the Bank of Canada might raise interest rates in anticipation of higher inflation (regardless of the experience in the US, where it has been demonstrated that lower rates of unemployment do not necessarily lead to higher inflation). Scenario 2 assumes this will not happen. But, if it did, as the sensitivity analysis shows, there still would be a steady downward trend in the federal debt burden.

But what happens if disaster strikes and everything goes wrong at once? Assume interest rates on the public debt shoot up to 10 percent on average (which is almost impossible due to much of the debt already being financed at fixed rates). Assume that growth collapses. Instead of 3.5, 3.0 and 2.7 percent growth for 1998-99, 1999-2000 and 2000-09, respectively, assume we have 2.5 percent growth in 1998-99 and 1.5 percent thereafter, while inflation gets going again and averages 5.0 percent over the period under review. The fiscal consequence is that we would have a debt burden in 2008-09 of about 35 percent of GDP, or approximately 15 percentage points higher than the base case. This level *still* would be among the lowest of G7 countries today. While Ottawa would run modest deficits in most years, its debt burden in any case would continue to fall.

Scenarios 1 and 2 demonstrate that, because Canada is running huge surpluses on program spending against revenue (as discussed in Appendix 2), we have substantial room for additional spending or tax cuts (or both) without threatening improvement in our fiscal position.

In the next scenario, we look at things the other way around: Instead of asking what is the effect of increased spending on fiscal balances, we calculate what level of spending is required to achieve specific fiscal objectives.

scenario 3 – the Throne Speech promise

In the most recent Throne Speech, the federal government promised that: “It will seek to devote one-half of the surplus in this mandate to addressing the social and economic needs of Canadians. The other half will go to a combination of reducing taxes and the national debt” [Canada 1997d]. Let’s look first at the ‘spending half’ of the promise.

Although the Throne Speech spoke only to the federal government’s present mandate, for the purposes of scenario 3 we assume that the same policy would extend to the end of our forecast period. We interpret spending ‘half the surplus’ to mean spending enough so that the budget surplus in 2008-09 is half of what it would have been in the base case. Thus we are looking for sufficient spending to reduce the surplus in 2008-09 to about \$28 billion.

To keep things as simple as possible – and show the magnitude of spending implied by the promise to spend half the surplus – we adjusted spending to hit the target of a \$28 billion surplus in 2008-09, while keeping everything else constant. The amount of additional spending required is \$12 billion and results in a debt-to-GDP ratio of 34 percent in 2008-09. (See Figure 1.) In scenario 3, the \$12 billion is apportioned equally to transfers to persons and program spending. However, this amount could be apportioned in any way with the same results, so long as it adds up to \$12 billion.

In reality, this magnitude of spending would have an effect on inflation, economic growth and

interest rates, so keeping all these variables constant is not a realistic portrait of what would happen. In fact, due to higher values in all these variables, even *more* spending, not less, would be required to achieve the target of a \$28 billion surplus in 2008-09.

The second part of the Throne Speech promised to use the “other half” of the surplus for “a combination of reducing taxes and the national debt.” Since the government did not say how much would go to each of taxes and debt reduction, we assumed that the objective is to cut in half the surplus in 2008-09. To do this would require a tax cut of about \$6 billion, resulting in a debt-to-GDP ratio of 41 percent in 2008-09. The result is a much more expansive fiscal policy than any of the other scenarios reviewed here.

conclusion

This report set out to address only the question: What will the federal government gain or lose in indebtedness as a consequence of policy choices to spend more, or less, on programs, transfers and tax cuts? The answer we found is that the debt-to-GDP ratio continues to decline even with substantial additional spending. It is hard to avoid the conclusion – even based solely on this quantitative analysis – that restricting future budget surpluses to debt repayment simply is not worth it.

It might be argued that the model presented here is inaccurate. It is, admittedly, highly simplified and meant only to provide a ballpark estimate of future debt burdens. However, anyone making the argument that debt burdens will be higher than have

been predicted here should come up with an alternative analysis to back up their claim, rather than expecting Canadians to accept the need for accelerated debt reduction on blind faith. In particular, one searches in vain through the Budgets and other documents of the Department of Finance for a clear, quantitative statement of a long-term debt reduction strategy and the reasons for the strategy.

The closest thing to a public long-term debt plan is one statement in the 1997 *Economic and Fiscal Update*: “...if a balanced budget was maintained over a 10-year period, coupled with moderate economic growth and average effective interest rates of about 5 percent, the debt-to-GDP ratio would be about 45 per cent – the level last witnessed in the 1980s” [Canada 1997b; 38]. Interestingly, if the original 1997-98 Budget estimates are substituted for those used in the base case presented here, the result is a debt-to-GDP burden of 46 percent in 2007-08 – almost identical to the figure noted in the *Fiscal Update*. But we now know that the 1997-98 accounts will be close to balanced. If a 45 percent debt-to-GDP ratio was acceptable to the Department of Finance last year, is it still acceptable? If so, as we have seen, substantial new spending or tax cuts are required to meet the Department’s goals. But if 45 percent now has become unacceptable, why has last year’s acceptable level for debt burden changed and what is the new target?

Obviously, the federal government has done long-term projections. Reasoned public debate demands that the Department of Finance make its projections public in the next Budget, set clear targets and provide a rationale for the targets.

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