PRB 05-03E

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THE DEBT-TO-GDP TARGET: OPTIONS AND CONSIDERATIONS

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11 May 2005

PARLIAMENTARY INFORMATION AND RESEARCH SERVICE
SERVICE D'INFORMATION ET DE RECHERCHE PARLEMENTAIRES

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INTRODUCTION

In a January 2004 speech to the Regina and District Chamber of Commerce, federal Finance Minister Ralph Goodale said that one of the federal government's priorities was to reduce Canada's debt-to-Gross Domestic Product (GDP) ratio to 25%. At the end of 2003-2004, the debt-to-GDP ratio was 41.1%.(1) In *Budget 2004*, Finance Minister Goodale said the government had set a goal of achieving this result within 10 years, by 2014-2015.(2) The evidence presented in *Budget 2005* suggests that this goal remains attainable.(3)

While the 25% target is seen by some as arbitrary, the federal government argues that achieving this goal would free up funds for priorities such as health care, education or tax cuts. The federal government also argues that such funds will be all the more needed as the population ages and puts increasing demands on the health-care system. In concrete terms, *Budget 2005* estimates that reducing the debt-to-GDP ratio to 25% would reduce the portion of each tax dollar devoted to servicing the debt to 12.5 cents, down from 19 cents in 2003-2004.(4)

This paper looks at the factors involved in achieving the federal government's 25% goal. It then considers the impact of alternative scenarios on the federal budgetary balance and the federal debt-to-GDP ratio. Before looking at these scenarios in detail, it presents a brief discussion of the limitations of fiscal projections, followed by a review of how the federal debt-to-GDP ratio fell from a high of 68.4% in 1995-1996 to 41.1% in 2003-2004.

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(1) Department of Finance, "Speech by the Honourable Ralph Goodale, Minister of Finance, to the Regina & District Chamber of Commerce at the launch of pre-budget consultations for 2004," 12 January 2004, at: http://www.fin.gc.ca/news04/04-002e.html. Note that the term "debt" in the "debt-to-GDP" ratio refers to the accumulated deficit, which is defined as total debt less financial and non-financial assets.

(2) Department of Finance, *Budget 2004*, p. 55, at: http://www.fin.gc.ca/budtoce/2004/budliste.htm.

(3) Department of Finance, *Budget 2005*, pp. 240-241, at: http://www.fin.gc.ca/budtoce/2005/budliste.htm.

(4) *Ibid.*, p. 241.

FACT VERSUS FICTION: THE LIMITATIONS OF FISCAL PROJECTIONS

Almost by definition, the future is unknowable. Few, if any, would have predicted something called "the Internet" in the 1980s, fewer still the 11 September 2001 terrorist attacks in the United States, the Severe Acute Respiratory Syndrome (SARS) outbreak in the summer of 2003 or the discovery of mad cow disease in Canada. All these events had important economic impacts. Economists who prepare estimates, forecasts and projections(5) must also contend with more subtle but no less important economic changes: unexpected increases or decreases in consumer demand, inflation, or investment. Relative to economic forecasts, fiscal estimates are even more difficult owing to the vagaries of policy decisions based on political, social, environmental and other considerations.

The challenge of making accurate economic and fiscal estimates, forecasts and projections is illustrated by the ongoing divergence between the federal government's own budget forecasts and actual budgetary outcomes. Since recording its first budgetary surplus in almost 30 years in 1997-1998, the federal government has "missed" its targeted budgetary balance by a cumulative $61.4 billion.(6) In his January 2004 speech to the Regina and District Chamber of Commerce, Finance Minister Goodale noted that he was concerned about the wide divergence between projected and actual federal fiscal balances in recent years: "I understand that frustration. Indeed, I have expressed it myself in my previous roles around the Cabinet table."(7) At the same time, however, he argued that prudent fiscal management required that the government err on the side of caution in its estimates, forecasts and projections.(8)

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(5) Appendix A distinguishes among these three ways of trying to anticipate the economic future.

(6) This figure was calculated by adding the surpluses since 1997-1998 as found in Table 1 of the Department of Finance *Fiscal Reference Tables*, October 2004. These surpluses are "missed forecasts" because of the federal government's relatively recent (since the mid-1990s) practice of forecasting a balanced budget (i.e., zero surplus, zero deficit) for its three-year planning horizon. This practice assumes that contingency and prudence reserves are just that – surplus money that might be generated but cannot be counted on.

(7) See Department of Finance (2004), http://www.fin.gc.ca/news04/04-002e.html.

(8) The term "prudent" can, of course, mean different things to different people in the context of fiscal policy. Someone who favours balanced budgets will interpret "prudent" to mean that avoiding a budget deficit is paramount. Someone who favours spending objectives, however, may interpret "prudent" to mean ensuring that spending objectives are met, with less attention paid to the overall budget outcome.

Nevertheless, in September 2004, Finance Minister Goodale initiated a "comprehensive third-party review" of the government's forecasting methods to (1) improve the accuracy of its economic forecasts; (2) improve the preparation and accuracy of the fiscal forecasts; and (3) deal better with the uncertainties in economic and fiscal forecasting.(9) At the time of writing, the review, led by Dr. Tim O'Neill, chief economist and executive vice-president of BMO Financial Group, is expected to be completed sometime before the House adjourns for the summer. The resulting report is to be presented to the House of Commons Standing Committee on Finance, which is also looking into the matter and is expected to issue its own report before the summer.

Despite uncertainty about the future, economists continue to estimate, forecast and project because policy-makers and citizens require a guide to the future, in order to make decisions today that affect everyone tomorrow. Generally speaking, estimates, forecasts and projections are based on current and past data. Some institutions and some social phenomena are relatively constant through time and can therefore be used as relatively stable and uncontroversial baselines for gauging the future. Since the 1970s, for example, it has been fairly safe to assume that Canada's population would grow at about 0.9% per year,(10) and there is little reason to expect this growth rate to change in the near to medium term.(11) Similarly, actuaries at the Canada Pension Plan Investment Board (CPPIB) and insurance companies regularly use average life expectancies, fertility rates and other demographic data to calculate premium payments well into the future. It is also generally safe to assume that Canadians will continue to pay taxes (consumption, income, and excise taxes) and will continue to receive certain services (health care, roads, etc.) in the future.

In some cases, however, forecasters must base their predictions on less stable variables. It is particularly difficult, for example, to predict future taxation and spending policy given that these are both discretionary variables, very subject to the sway of political trends. To offset some of these difficulties, many forecasters run a series of projections employing different scenarios of key economic variables. This helps to gauge the sensitivity of expected outcomes to unexpected events.

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(9) For the original announcement, see Department of Finance, "Minister of Finance Appoints Prominent Canadian Economist to Review the Government's Economic and Fiscal Forecasting," News Release, 29 September 2004, at: http://www.fin.gc.ca/news04/04-057e.html. For details on the review's objectives, see *Budget 2005*, p. 238.

(10) Office of the Superintendent of Financial Institutions, *18th Actuarial Report on the Canada Pension Plan*, Chart 10, p. 64, at: http://www.osfi-bsif.gc.ca/app/DocRepository/1/eng/oca/reports/CPP/CPP1801_e.pdf.

(11) The Canada Pension Plan Investment Board, which manages Canada Pension Plan (CPP) funds, assumes 0.9% population growth for Canada (less Quebec, which has its own pension system) through to 2020 and uses this assumption to make its actuarial assessments about future CPP payouts and contributions.

The following section examines the government's forecast that the debt-to-GDP ratio will fall to 25% by 2014-2015. The paper then looks at what happens to the target under a high-revenue scenario and a low-spending scenario. It finds that under both scenarios, the debt-to-GDP ratio could be reduced to below 25% by 2011-2012, a full three years ahead of schedule.

THE RISE AND FALL OF THE FEDERAL DEBT-TO-GDP RATIO

In 1995-1996, the federal government's debt-to-GDP ratio reached 68.4%, its highest since 1948-1949. Also in 1995-1996, Canada's total government indebtedness (federal plus provincial debt) as a proportion of GDP was the second-highest among OECD countries (after Italy) because of years of successive budgetary deficits and slower-than-anticipated economic growth.(12) Consequently, a number of economists and commentators argued that Canada was on the verge of a financial crisis similar to that experienced by Mexico, where in late 1994 and early 1995 the value of the peso fell by one-half because of concerns about Mexico's ability to support its policy of pegging the value of the peso to the U.S. dollar.(13) In early 1995, the *Wall Street Journal* went so far as to publish an editorial suggesting that because of Canada's increasing federal and provincial debt, it had become "an honorary member of the Third World,"(14) a phrase still used by the federal government to illustrate how much the fiscal situation has changed since the mid-1990s.(15) A subsequent editorial in the same newspaper urged the federal government to reduce its debt through spending cuts rather than relying on tax

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(12) Department of Finance, *Fiscal Reference Tables*, October 2003, Table 57, p. 66, at: http://www.fin.gc.ca/toce/2003/frt_e.html. Note that because of the federal government's accounting practices, budgetary surpluses (deficits) necessarily reduce (increase) the accumulated deficit. They do not, however, necessarily reduce (increase) the federal government's market debt, which is more properly analogous to a home mortgage than the accumulated deficit.

(13) Bradford DeLong, Christopher DeLong, and Sherman Robinson, "The Mexican Peso Crisis: In Defense of U.S. Policy Toward Mexico," at: http://www.j-bradford-delong.net/Econ_Articles/themexicanpesocrisis.html.

(14) "Bankrupt Canada?" *Wall Street Journal*, 12 January 1995, p. A14. The article went on to note that "[i]f dramatic action isn't taken in next month's federal budget, it's not inconceivable that Canada could hit the debt wall and, like Britain in the 1970s or New Zealand in the 1980s, have to call in the International Monetary Fund to stabilize its falling currency." The editorial also argued that, unlike the debt load of Italy – which was and is the most indebted OECD country – a high proportion of Canada's debt was payable only in U.S. dollars, which made Canada susceptible to sudden changes in the value of its currency.

(15) See, for example, the November 2003 *Economic and Fiscal Update*, p. 7, at: http://www.fin.gc.ca/budtoce/2003/ec03_e.html. Another example is a 6 June 2003 speech by the Honourable Maurizio Bevilacqua, former Secretary of State (International Financial Institutions), to the Business Executives Organization; see: http://www.fin.gc.ca/news03/2003-029_1e.html.

increases or economic growth. In so doing, Canada would be taking part in a general trend towards a "scaling down of the 20th century's welfare states," according to the *Wall Street Journal*.(16)

A few weeks later, the federal government introduced a budget that helped reduce overall federal program spending by 8.7% in 1996-1997, the biggest one-year decrease in federal program spending since 1947-1948. The objective was to reduce the deficit to 3% of GDP, and, eventually, to generate a surplus. This goal was achieved in 1997-1998. In *Budget 2004*, the federal government was able to point out that Canada's total government (federal plus provincial) debt, as a proportion of GDP, was the second-lowest among OECD countries in 2002-2003. This turnaround was achieved, according to the Department of Finance, because of "six consecutive annual budgetary surpluses, coupled with sustained economic growth."(17)

In assessing the relative contributions of budgetary surpluses and economic growth to reducing the federal debt-to-GDP ratio, it is important to note that the ratio is a statistic made up of two distinct but causally related variables, namely, federal government debt (measured by the accumulated deficit) and nominal GDP.(18) The equation below illustrates this relationship mathematically:

$$\text{Debt - to - GDP Ratio} = \frac{\text{Federal Debt}}{\text{Nominal GDP}}$$

From this definition, it follows that there are two ways in which the debt-to-GDP ratio can fall. First, any increase in nominal GDP (the denominator) *necessarily* reduces the debt-to-GDP ratio, *provided* the increase is not exceeded by a growth in federal debt (the numerator). Second, any decrease in the federal debt brought about by a budgetary surplus *necessarily* reduces the debt-to-GDP ratio, *provided* the decrease is not exceeded by a decline in GDP.

(16) "Northern Exposures," *Wall Street Journal*, 2 February 1995, p. A18.

(17) *Budget 2004*, p. 54.

(18) Nominal GDP is defined as real GDP plus inflation.

The relative contributions of debt reduction (through budgetary surpluses) and GDP growth to reducing the debt-to-GDP ratio can be gauged by examining the relative changes in the two variables. Table 1 calculates these relative contributions with two different start dates. The first start date is 1995-1996. It was chosen because of the importance of the 1995 federal budget and because the federal debt-to-GDP ratio peaked in that year. The second start date is 1997-1998. It was chosen because this is the year the federal government recorded its first budgetary surplus and is the year most often cited when the federal government wants to highlight its fiscal achievements.

Table 1

Two Estimates of the Relative Contributions of Budgetary Surpluses and Economic Growth in Reducing the Federal Debt-to-GDP Ratio ($ billions)

	1995-1996 to 2003-2004	1997-1998 to 2003-2004
Change in Federal Accumulated Deficit	-$22.7	-$61.4
Change in Nominal GDP	$446.8	$380.7
Ratio of Change in Nominal GDP to Change in Accumulated Deficit	20 : 1	6.2 : 1

Note: 1995-1996 estimates are calculated using GDP and accumulated deficit figures for the end of 1994-1995, i.e., the beginning of 1995-1996 as the starting point.

Source: Library of Parliament calculations, based on data from the Department of Finance, *Fiscal Reference Tables*, October 2004; Statistics Canada quarterly GDP data, Series 498074, Table 381-001.

The first start date shows that for every $1 of budget surplus, $20 worth of GDP was generated during the 1995-1996 to 2003-2004 period. This suggests that GDP growth drove most of the decline in the debt-to-GDP ratio during this period. The second start date (1997-1998) again suggests that GDP growth accounted for much of the decline in the ratio during the 1996-1997 to 2003-2004 period, albeit somewhat less so than with the earlier start date. In this second instance, for every $1 of budget surplus, $6.2 of economic growth was driving the reduction in the debt-to-GDP ratio.

REACHING THE 25% FEDERAL DEBT-TO-GDP TARGET: PROJECTIONS TO 2014-2015

When projecting the evolution of the federal government's debt-to-GDP ratio, forecasts typically give a prominent role to four factors: the overall federal debt level (i.e., accumulated deficit); federal government spending; federal government revenue; and economic growth. While all four factors are, to varying degrees, influenced and determined by federal government action, only the first three – debt, spending and revenue – can truly be said to be under the federal government's direct control.(19)

For the purpose of making projections to 2014-2015, nominal economic growth will be assumed to grow at a constant 4.8% annual average rate, which is consistent with private-sector forecasts used by the Department of Finance in *Budget 2005* for fiscal years beginning in 2007-2008.(20) Given that private-sector forecasts typically assume inflation of about 1.9% per year, it is assumed that real GDP (which is defined as nominal GDP less inflation) will grow at roughly 2.9% a year.(21)

Table 2 shows three projections of the federal government's debt-to-GDP ratio, from 2003-2004 to 2014-2015. The projections in the left-hand column – the baseline scenario – use private-sector assumptions about economic growth, inflation, debt charges, federal government revenue and federal spending as a proportion of GDP. These projections are consequently similar to those found in *Budget 2004* and *Budget 2005*, which predict that the debt-to-GDP ratio will fall below 25% by 2014-2015. It is important to stress that these projections assume a balanced budget where any surpluses are used entirely to fund additional spending and not to reduce in any way the accumulated deficit, which remains constant in absolute terms until 2014-2015 at $501.5 billion. *All* the improvement in the debt-to-GDP ratio comes from growth in nominal GDP.

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(19) At any given moment in time, there is considerable institutional inertia against changes in any of these three variables. Debt contracts, for example, may include clauses that prevent the federal government from forcing debt holders to sell their titles. Similarly, spending programs may be legally obliged to fulfil certain obligations, and attempts to change the related legislation could be time-consuming due to legal, political and procedural challenges. On the revenue side, the complexity of taxation policy makes it difficult to predict the outcome of changes to policy.

(20) Private-sector nominal growth rate forecasts from *Budget 2005* (p. 62) are used for 2004-2005 through to 2006-2007. The federal government began using private-sector forecasts in the early 1990s, because they were presumed to be more objective and accurate than forecasts generated within the public sector.

(21) Note that for the purposes of these calculations, private-sector forecasts use the GDP deflator (rather than the Consumer Price Index) to measure inflation, because the GDP deflator is a broader measure of inflation.

Table 2

Three Scenarios for Reducing the Federal Debt-to-GDP Ratio to 25%

	Baseline Scenario – Government Forecast	High-revenue Scenario	Low-spending Scenario
2003-2004 (base year)	41.1%	41.1%	41.1%
2004-2005	38.8%	38.7%	38.7%
2005-2006	37.0%	36.5%	36.9%
2006-2007	35.2%	34.4%	35.0%
2007-2008	33.6%	32.4%	33.0%
2008-2009	32.1%	30.3%	30.9%
2009-2010	30.6%	28.2%	28.6%
2010-2011	29.2%	26.1%	26.0%
2011-2012	27.9%	**24.1%**	**23.2%**
2012-2013	26.6%	22.0%	20.1%
2013-2014	25.4%	20.1%	16.6%
2014-2015	**24.2%**	18.1%	12.9%

Notes: Scenario 1: Assumes (1) a balanced budget requirement (zero surplus); and (2) that the revenue-to-GDP ratio fluctuates as per private-sector assumptions.

Scenario 2: Assumes (1) no balanced budget requirement; (2) that the revenue-to-GDP ratio is held constant at 15.1%; and (3) that all surpluses reduce the accumulated deficit.

Scenario 3: Assumes (1) no balanced budget requirement; (2) that spending grows at the rate of inflation plus population growth; and (3) that all surpluses reduce the accumulated deficit.

See Appendix B for more details on the underlying assumptions.

Source: Calculations by Library of Parliament; private-sector assumptions from Department of Finance, *Budget 2005*, pp. 62 and 258.

The projections in the middle column – the high-revenue scenario – are similar to those in the left-hand column except for two important differences. First, they no longer impose a federal balanced-budget requirement, which means that budgetary surpluses are automatically accounted as reducing the federal government's accumulated deficit. Second, they assume that federal revenue, as a proportion of GDP, is held constant at the estimated 2004-2005 rate of 15.1% (whereas private-sector assumptions predict that this proportion will drop to 14.5% by 2009-2010).[(22)]

(22) In 2003-2004, federal revenue as a proportion of GDP was 15.3%. See Department of Finance, *Fiscal Reference Tables*, October 2004, p. 10.

According to the high-revenue scenario, the debt-to-GDP ratio could fall below 25% as early as 2011-2012 if the federal government were to hold revenue as a proportion of GDP constant at 15.1% and remove its balanced budget requirement (i.e., if the resulting surpluses were accounted as reducing the accumulated deficit). If the federal government were to continue this strategy to 2014-2015, the debt-to-GDP ratio could fall to 18.1%. While that decline would be achieved largely because of economic growth, debt reduction as a result of large and growing annual budgetary surpluses ($9 billion in 2003-2004 to $21.4 billion by 2014-2015) would also play an important role.

While the projections calculated under the high-revenue scenario assume that surpluses would be used to reduce the federal government's accumulated deficit, they could also be used to increase spending. By reimposing a balanced budget requirement and keeping revenue constant at 15.1% of GDP, the federal government could still achieve its 25% target by 2014-2015 while increasing program spending by a total of $126.5 billion to 13% of GDP in 2014-2015, up from 11.6% of GDP in 2003-2004.(23)

The federal government could also achieve its 25% debt-to-GDP target by restraining spending. The right-hand column in Table 2 – the low-spending scenario – shows projections based on the assumption that the federal government increases spending just enough to keep overall per capita spending constant through time – i.e., at the same rate as population growth plus inflation, or roughly 2.9%.(24) This scenario suggests that the federal government could achieve its 25% debt-to-GDP target in 2011-2012 by limiting spending increases to population growth plus inflation. By 2014-2015, the federal government would be generating substantial annual surpluses ($61.7 billion) sufficient to reduce the debt-to-GDP ratio to 12.9%.

(23) Library of Parliament calculation based on applying the full amount of surpluses to additional program spending.

(24) This approach to spending was recommended by the House of Commons Standing Committee on Finance in its 2002 pre-budget consultation report, *Canada: People, Places and Priorities*, November 2002, p. 38, available at: http://www.parl.gc.ca/InfoComDoc/37/2/FINA/Studies/Reports/finarp02-e.htm.

CONCLUSION

In *Budget 2004*, the federal government set a goal of reducing the federal debt-to-GDP ratio to 25% within 10 years, by 2014-2015. This target date is based on several private-sector assumptions: that from 2007-2008 onwards, the economy will grow at an average nominal rate of 4.8% per year; that the federal government will continue to aim for balanced budgets throughout that period; that federal revenue, as a percentage of GDP, will fall to 14.5% by 2009-2010 from 15.3% in 2003-2004; and that spending will increase from 11.6% in 2003-2004 to 12.4% by 2014-2015. Under this scenario, the federal government would be able to achieve its budgetary goal solely because of economic growth, much as it has since the mid-1990s. By assumption, there would be no surpluses available to reduce the accumulated deficit.

If, instead, the federal government wanted to accelerate its debt-to-GDP reduction strategy, it could achieve its 25% target by 2011-2012 by either holding revenue at its forecast 2004-2005 rate of 15.1% of GDP, or by limiting spending increases to population growth plus inflation. Under both of these alternative scenarios, the federal debt-to-GDP ratio would be reduced to record lows by 2014-2015.

More generally, all three scenarios illustrate that when trying to predict the economic and fiscal future, even slight changes in assumptions can yield very different results. Nevertheless, by choosing plausible alternative scenarios (amongst an infinite constellation of possibilities), forecasters can give decision-makers some practical insight into what the future may hold.

APPENDIX A

ESTIMATES, FORECASTS AND PROJECTIONS

There are three different ways of looking into the economic future: estimates, forecasts and projections. *Estimates* tend to be the most reliable of these three, because they are usually short-term in nature and therefore can make use of current and still relevant data. *Forecasts* extend into the more distant future (usually no more than five years), based on "educated guesses" about the likely evolution of key elements of the economy: economic growth, inflation, government spending, unemployment, etc. *Projections* are usually the least reliable of all, sometimes looking ten or twenty years into the future based purely on extensions of existing trends.

An example helps to illustrate the key distinctions among these three ways of predicting the future. Assume that the economy has been growing at an average real rate of 3% per year for the last ten years and an economist is asked to provide his or her best guess about the likely direction of the economy in the next year, in the next five years and in the next ten years. When looking ahead one year, the economist can draw on recent experience to provide a reasonably accurate estimate of economic growth: he or she may know, for example, that U.S. interest rate increases are likely to slow economic growth in that country, leading to weaker exports from Canada to the United States. The economist may therefore predict growth of only 2% in 2005 for Canada. Looking ahead five years, the economist knows that the effects of interest rate increases in 2005 will probably dissipate and the U.S. economy will likely recover. He or she therefore might expect the Canadian economy to outperform the average growth rate witnessed in recent years, and might forecast growth of 4% in 2006, 3.5% in 2007, and 3% in 2008, 2009 and 2010. When looking beyond 2009, however, the economist has even less reliable information: the best that he or she can do is to simply project current trends out into the future and assume that while these projections may not be accurate in any one year, economic growth will likely "average" 3% in the next ten years just as it has in the past.

APPENDIX B

ASSUMPTIONS UNDERPINNING THREE SCENARIOS IN TABLE 2*

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
GDP Growth	6.0%	4.9%	5.0%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%
GDP Inflation	3.3%	2.0%	1.9%	1.9%	1.9%	1.9%	1.9%	1.9%	1.9%	1.9%	1.9%
Effective Interest Rate**	7.6%	7.7%	8.0%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%
Revenue as a Percentage of GDP											
Baseline Scenario	15.1%	14.8%	14.7%	14.7%	14.6%	14.5%	14.5%	14.5%	14.5%	14.5%	14.5%
High-revenue Scenario	15.1%	15.1%	15.1%	15.1%	15.1%	15.1%	15.1%	15.1%	15.1%	15.1%	15.1%
Low-spending Scenario	15.1%	14.8%	14.7%	14.7%	14.6%	14.5%	14.5%	14.5%	14.5%	14.5%	14.5%
Spending as a Percentage of GDP											
Baseline Scenario	12.2%	11.9%	11.9%	11.9%	11.9%	11.9%	12.0%	12.1%	12.2%	12.3%	12.4%
High-revenue Scenario	12.2%	11.9%	11.9%	11.9%	11.9%	11.9%	12.0%	12.1%	12.2%	12.3%	12.4%
Low-spending Scenario	12.2%	12.0%	11.8%	11.6%	11.3%	11.1%	10.9%	10.7%	10.5%	10.4%	10.2%
Other Assumptions											
Population Growth	0.8%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%
Consumer Price Index Inflation	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%

Sources: *Budget 2005*, pp. 62 and 258; Department of Finance, *Fiscal Reference Tables*, October 2004; Library of Parliament, author's assumptions.

Notes: * Some numbers may not be identical to those in *Budget 2005* due to rounding.
** Effective interest rate is calculated by dividing the federal government's interest costs by its accumulated deficit.