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THE ECONOMIC IMPACT OF CORPORATE TAX RATE REDUCTIONS

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The Economic Impact of Corporate Tax Rate Reductions©

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The Economic Impact of Corporate Tax Rate Reductions

Summary

- Federal and provincial corporate income tax rates have fallen significantly in Canada over the past ten years. The statutory federal tax rate on general corporate income has been reduced from 28% of business profits in 2000 to 16.5% as of January 1st, 2011. It is scheduled to fall to 15% on January 1st, 2012.
- Provincial governments are also lowering their corporate tax rates. Planned reductions in federal and provincial tax rates will reduce Canada's average combined statutory corporate tax rate from 31% in 2010 to 25% in 2012.
- Lower corporate tax rates improve Canada's tax competitiveness. A combined statutory rate of 25% will be the lowest in the G7 in 2012. However, it will only bring Canada's rate of business taxation in line with current OECD and global averages. And, when other tax credits, allowances, exemptions, and deductions are taken into account, companies in Canada will pay just a slightly lower proportion of their pre-tax income than businesses in the United States.
- Lower corporate tax rates increase returns on corporate investment but to date they have had no measurable impact on foreign direct investment in Canada.
- Nevertheless, corporate tax rate reductions generate significant economic benefits for the Canadian economy as a result of their positive impact on after-tax business profits.
- Close positive relationships exist between:
 - Canada's unemployment rate and after-tax business profits as a percentage of GDP;
 - Changes in after-tax business profits and changes in employment, GDP, personal income, and government revenues; and,
 - Changes in after-tax cash flow and changes in business investment and corporate spending on research and development activity.

- The economic impacts of corporate tax rate reductions can be estimated on the basis of these relationships.
- Over the past ten years, lower corporate tax rates have led to stronger employment growth and lower rates of unemployment, higher levels of business investment in new facilities, machinery and equipment, greater spending on research and development, and faster growth rates for GDP and the personal incomes of Canadians.
- Corporate tax cuts deliver a net fiscal benefit to the government sector – more revenues are generated across all levels of government in Canada than lost as a result of tax rate reductions. The net fiscal cost to the government that implements a tax cut is lower than the amount of corporate tax revenues it foregoes. However, more revenues are generated for other governments than for the jurisdiction that implements a corporate tax reduction.
- Based on a cautious assumption that the Canadian economy will grow (in nominal rather than real terms) by an average of 4.5% annually and that corporate profits before tax will increase at an average annual rate of 10% over the next two years, planned federal and provincial corporate tax rate reductions in 2011 and 2012 can be expected to:
 - Increase after-tax business profits by \$12.4 billion or 10.6%;
 - Lower Canada's unemployment rate by 0.52 percentage points and boost employment by 98,800 net jobs;
 - Increase total business investment by \$6.2 billion or 4.4%. (Investment in new facilities can be expected to rise by \$3.0 billion and investment in machinery and equipment by \$3.2 billion.);
 - Increase business spending on research and development by \$546 million or 4.4%;
 - Boost nominal GDP by \$51.6 billion or 3.2%;
 - Increase personal incomes of Canadians by \$30.4 billion or 2.4%;
 - Increase per capita personal income by \$880; and,
 - Contribute \$2.6 billion to \$3.7 billion in additional net revenues for all levels of government.
- The economic impacts of federal corporate tax rate reductions undertaken between 2000 and 2010, between 2007 and 2010, and planned for 2011 and 2012 are summarized in the following table.

Table 1: Summary of Economic Impacts of Federal Corporate Tax Rate Reductions

	Federal Tax Rate Reductions between 2000 and 2010	Federal Tax Rate Reductions between 2007 and 2010	Rate Reduction from 18% in 2010 to 15% in 2012
Year of Estimated Impact	2010	2010	2012
Impact on After-Tax Profits	+ \$16.5 billion + 16.3%	+ \$7.0 billion + 6.3%	+ \$6.2 billion + 5.3%
Impact on After-Tax Profits as a Percent of GDP	+ 1.02 percentage points	+ 0.43 percentage points	+ 0.39 percentage points
Impact on Canada's Unemployment Rate	- 0.68 percentage points	- 0.29 percentage points	- 0.26 percentage points
Impact on Employment	+ 127,000 net jobs	+ 54,000 net jobs	+ 49,900 net jobs
Impact on After-Tax Cash Flow	+ \$16.5 billion + 5.0%	+ \$7.0 billion + 2.1%	+ \$6.2 billion + 2.2%
Impact on Business Investment	+ \$8.3 billion + 5.0%	+ \$3.5 billion + 2.1%	+ \$3.1 billion + 2.2%
Impact on Investment in New Facilities	+ \$4.0 billion + 5.0%	+ \$1.7 billion + 2.1%	+ \$1.5 billion + 2.2%
Impact on Investment in Machinery & Equipment	+ \$4.2 billion + 5.0%	+ \$1.8 billion + 2.1%	+ \$1.6 billion + 2.2%
Impact on Nominal GDP	+ \$75.2 billion + 4.9%	+ \$30.0 billion + 1.9%	+ \$25.8 billion + 1.6%
Impact on Personal Income	+ \$44.9 billion + 3.7%	+ \$17.8 billion + 1.4%	+ \$15.2 billion + 1.2%
Impact on Per Capita Personal Income	+ \$1,310	+ \$519	+ \$440
Corporate Tax Revenue Foregone by Federal Government	- \$16.5 billion	- \$7.0 billion	- \$6.2 billion
Impact on Federal Revenue from GDP Growth	+ \$10.6 billion	+ \$4.2 billion	+ \$1.9 to \$3.6 billion
Net Fiscal Impact for Federal Government	- \$5.9 billion	- \$2.8 billion	- \$4.3 to - \$2.6 billion
Impact on Total Government Revenues from GDP Growth	+ \$28.9 billion	+ \$11.5 billion	+ \$7.5 to \$9.9 billion
Net Fiscal Impact for all Levels of Government	+ \$12.4 billion	+ \$4.5 billion	+ \$1.3 to \$3.7 billion

Canada's Corporate Tax Rates are Falling

Canada's federal and provincial corporate income tax rates have fallen significantly over the past ten years, and even more dramatically since 1960. The federal statutory tax rate on general business income has been reduced from 41% of profits in 1960, to 28% in 2000, and then to 16.5% as of January 1st, 2011. It is slated to fall to 15% on January 1st, 2012.

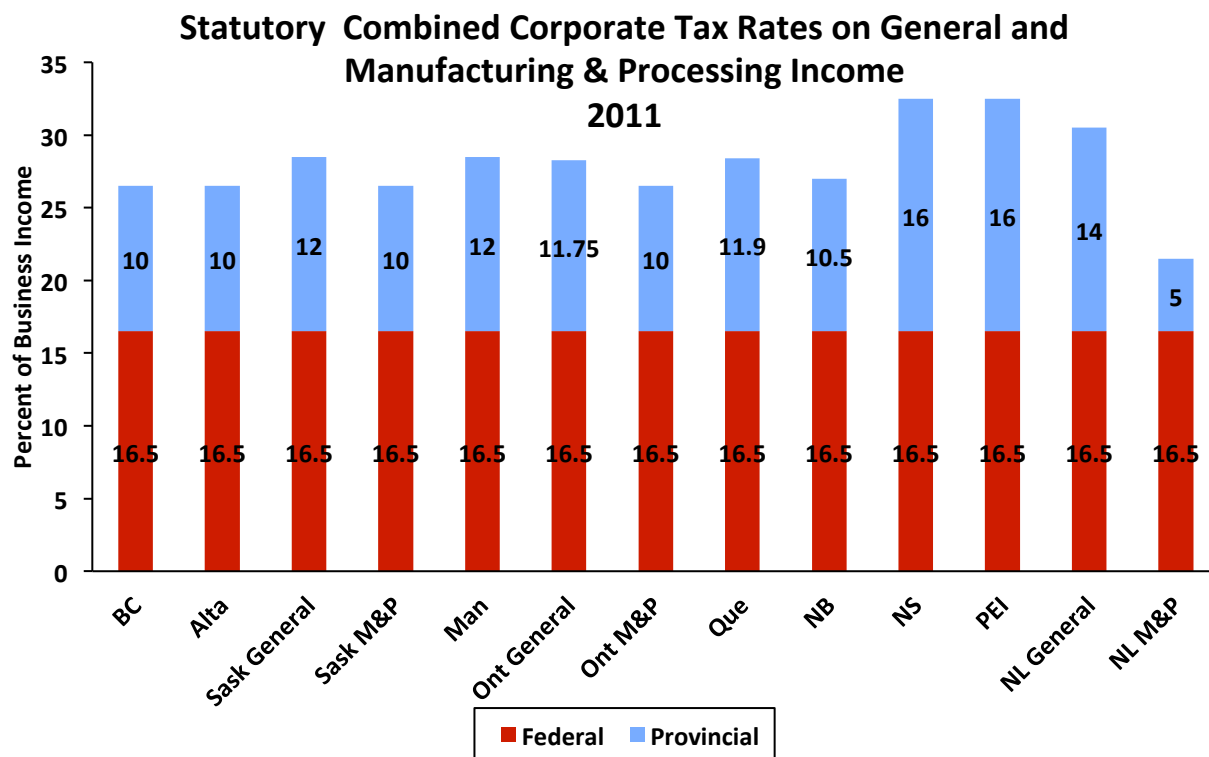
Table 2 tracks the reductions that have been made in federal corporate tax rates on general and manufacturing and processing business income since 1960.

Table 2: Federal Tax Rates on General Business Income

	Federal Corporate Tax Rate on General Business Profits	Federal Corporate Tax Rate on Manufacturing & Processing Profits	Federal Surtax Rate
1960	41%	41%	0%
1970	40%	40%	1.5%
1980	36%	30%	1.8%
1990	28%	24.5%	0.84%
2000	28%	21%	1.12%
2001	27%	21%	1.12%
2002	25%	21%	1.12%
2003	23%	21%	1.12%
2004	21%	21%	1.12%
2005	21%	21%	1.12%
2006	21%	21%	1.12%
2007	21%	21%	1.12%
2008	19.5%	19.5%	0%
2009	19%	19%	0%
2010	18%	18%	0%
2011	16.5%	16.5%	0%
2012 (current target)	15%	15%	0%

The federal government also eliminated its surtax on corporate profits and reduced its tax rate on income earned by small Canadian controlled private corporations from 12% to 11% in 2008. The small business income threshold was increased from \$200,000 to \$500,000 in 2009.

Provincial governments have also cut their tax rates on business profits.



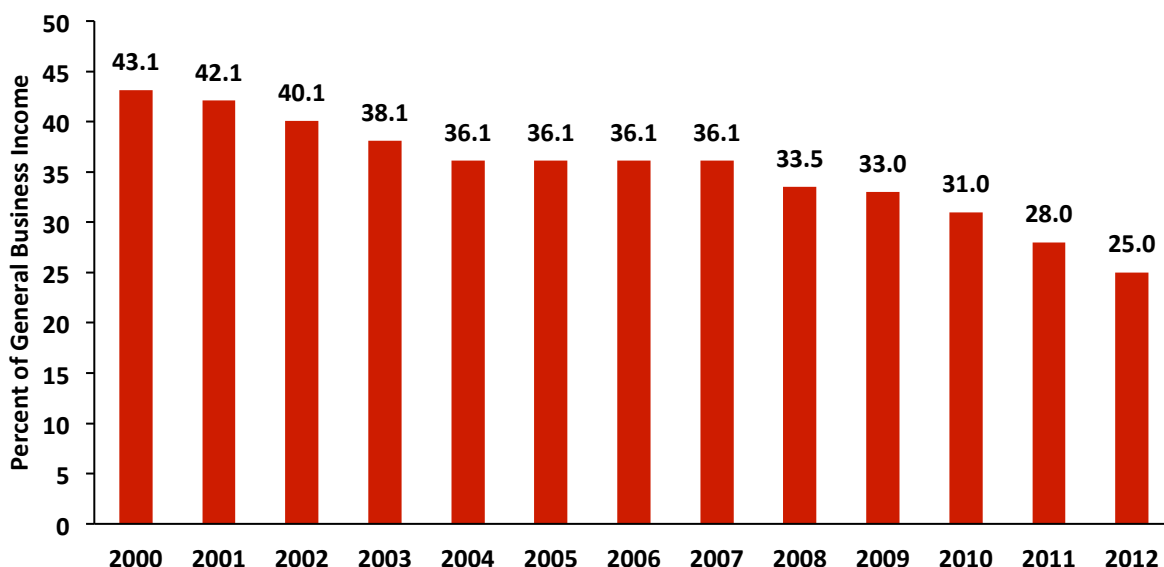
- British Columbia lowered its general corporate income tax rate from 11% to 10.5% for 2010 and then to 10% as of January 1st, 2011. The provincial government has also announced that it plans to reduce its small business tax rate from 2.5% to 0% by April 1st, 2012.
- Alberta's general corporate income tax rate is 10%. Its small business rate is 3%. The Alberta government raised its small business threshold from \$460,000 to \$500,000 as of April 1st, 2009.
- Saskatchewan levies tax rates of 12% on general business income, 10% on manufacturing and processing profits, and 4.5% on small business income.
- Manitoba's general corporate income tax rate fell from 13% to 12% on July 1st, 2009. The province cut its tax rate on small business income from 2% to 1% on January 1st, 2009 and then to 0% as of December 1st, 2010.
- Ontario cut its general corporate income tax rate from 14% to 12% on July 1st, 2010 and plans to reduce the rate every July 1st to 11.5% in 2011, 11% in 2012, until it falls to 10% in 2013. The province has accelerated reductions in its tax rate for manufacturing and processing income lowering it to 12% in 2009, 11% in 2010, and 10% in 2011. Ontario also reduced its small business tax rate from 5.5% to 4.5% as of July 1st, 2010. The province

eliminated its 4.25% surtax on Canadian controlled private corporations claiming a small business tax deduction at the same time.

- Quebec increased its general corporate income tax rate from 11.4% to 11.9% on January 1st, 2009. Its small business tax rate is 8%. However, the province did raise its small business threshold from \$400,000 to \$500,000 on March 20th, 2009.
- New Brunswick reduced its general corporate income tax from 13% to 12% in 2009 and then to 11% in 2011. It is slated to fall to 10% on July 1st, 2011 and to 8% on July 1st, 2012.
- Nova Scotia's small business tax rate was reduced from 5% to 4.5% on January 1st, 2011. The province levies a 16% tax rate on general business profits.
- Prince Edward Island's small business rate decreased from 3.2% to 2.1% on April 1st, 2009 and then to 1% on April 1st, 2010. The province levies a 16% tax rate on general business profits.
- Newfoundland reduced its small business rate from 5% to 4% on April 1st, 2010. The province charges 14% on general business income and 5% on manufacturing and processing income.

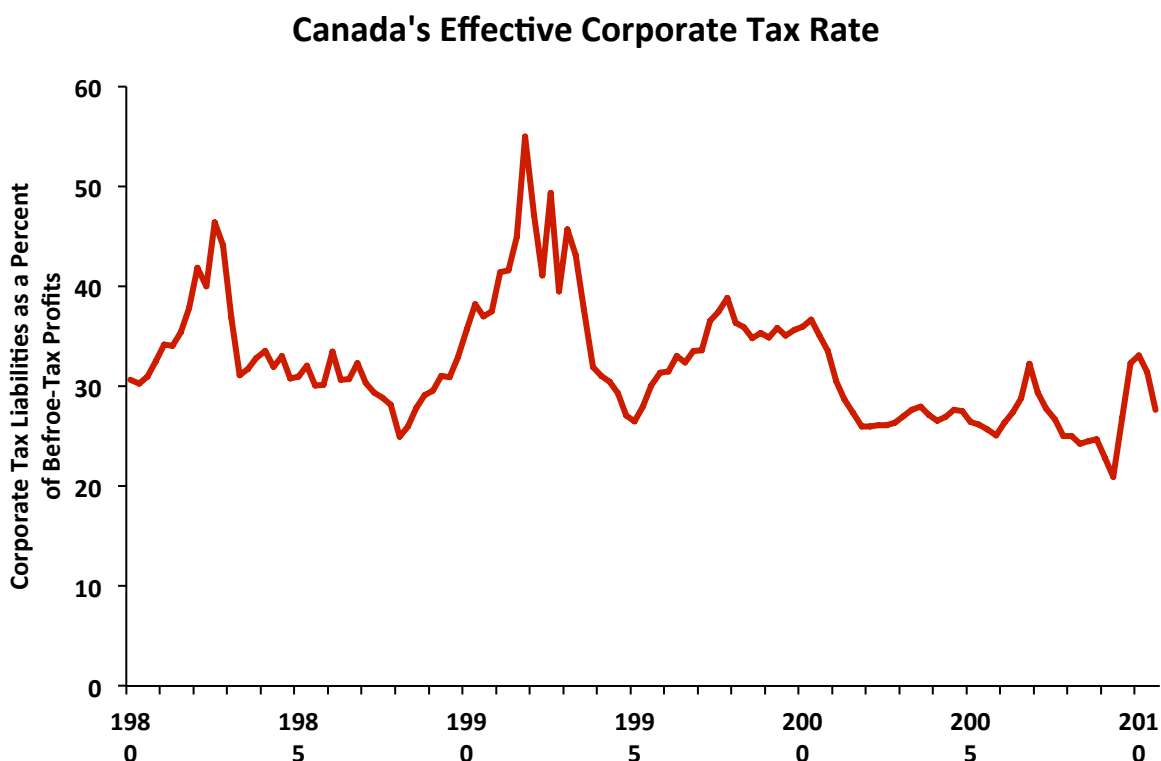
Canada's average combined statutory tax rate on general business income has dropped from 43.1% in 2000 to 31.0% in 2010. It is slated to fall to 28.0% in 2011 and then to 25.0% in 2012.

Canada's Average Combined Statutory Corporate Tax Rate



The amount that businesses actually owe in taxes levied on their income or profits is determined not only by the statutory corporate tax rate but also by the deductions, allowances, credits, and other profit-related tax measures that are all part of the tax system in the jurisdiction where their taxes are filed.

The effective corporate tax rate on business income is a measure of the actual tax liabilities of Canadian companies as a percent of their before-tax profits. It takes into account both the statutory rate and the impact that other policy measures have on the taxes that companies owe on their business income.



Canada's effective corporate tax rate has generally trended downward over the past three decades. However, corporate tax liabilities are far less elastic than business profits. The effective tax rate has surged in each of the recessions that Canada has experienced since 1980 – in 1982, in 1990/1991, as well as most recently in 2008/2009. Changes in the corporate tax system have also affected Canada's effective corporate tax rate. The effective tax rate jumped in the second half of 1990s, for instance, as federal and provincial governments eliminated some of their tax deductions, allowances, and credits, and in some cases raised tax rates, in an effort to reduce budgetary deficits.

Canada's effective corporate tax rate fell from 35.3% in 2000 to 24.6% in 2008 before rising to 25.7% in 2009 and then to an average of 30.7% for the first three quarters of 2010. With the

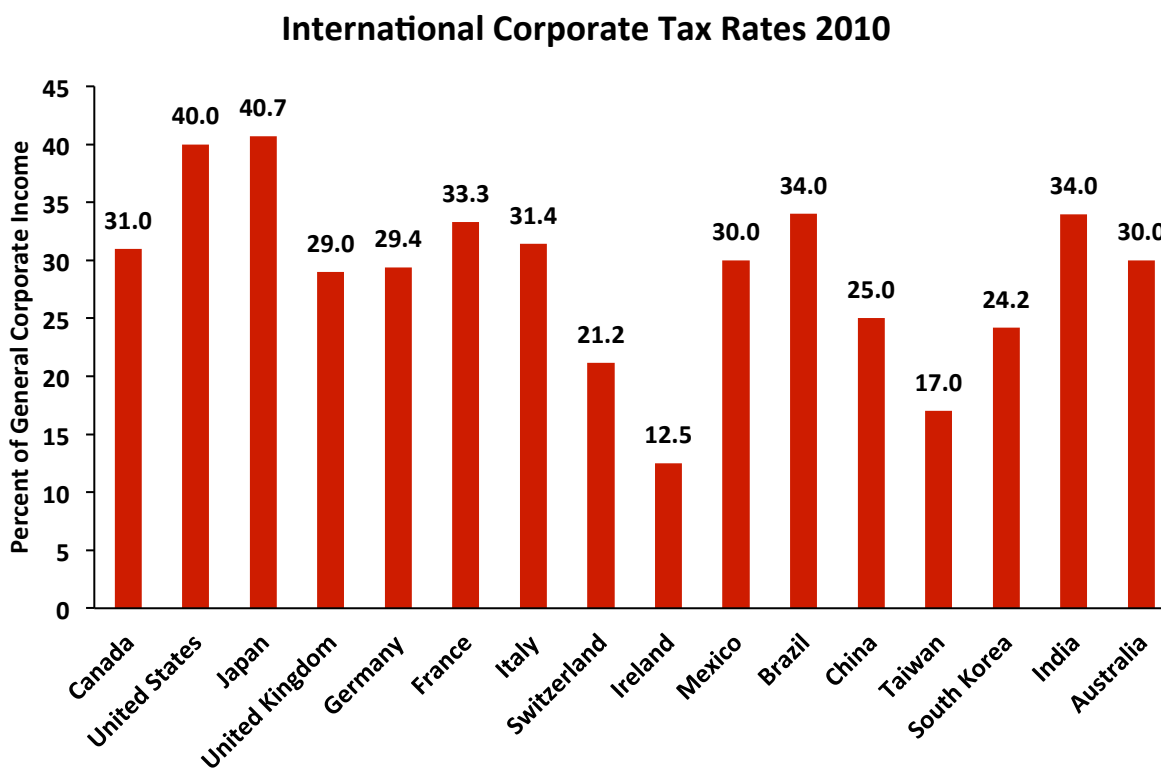
economic recovery gaining momentum and further corporate tax reductions planned by federal as well as provincial governments, Canada's effective corporate tax rate should fall below 24% in 2011 to around 20% in 2012.

If the federal government had not reduced its corporate tax rates between 2000 and 2010, Canada's effective tax rate would have been 40.4%, or 9.7 percentage points higher than it actually was, last year. If the government had not implemented its federal corporate tax rate reductions between 2007 and 2010, the effective corporate tax rate would have been 34.8%, or 4.1 percentage points higher than it actually was in 2010.

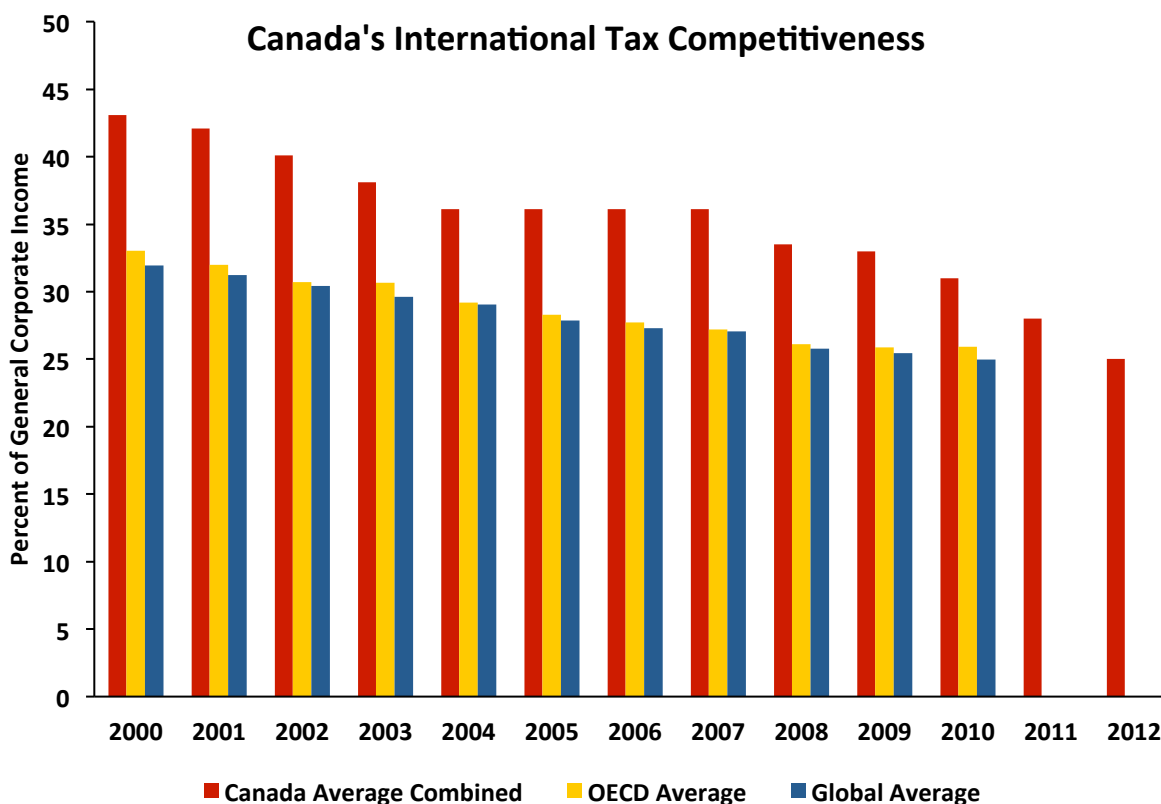
Impact on International Tax Competitiveness

Lower corporate income tax rates strengthen Canada's international tax competitiveness.

If Canada had not reduced tax rates on business income between 2000 and 2010, its average combined corporate tax rate would have remained at 43% - a far higher rate than any other major economy. Even after a decade of corporate tax reductions, Canada's average combined corporate tax rate was still higher than rates in many other jurisdictions in 2010.



With the average combined statutory tax rate on business income slated to fall to 25% in 2012, Canada will have the lowest corporate tax rate of any G7 country – provided that other jurisdictions do not lower their business tax rates further. But, even at 25%, Canada will still tax a higher proportion of business income than Switzerland, Ireland, China, Taiwan, South Korea, and many other emerging industrial economies.



In fact, countries around the world have been cutting their corporate tax rates in favour of increasing indirect taxes on consumers. The global average statutory corporate tax rate has fallen from 31.92% in 2000 to 25.44% in 2010. The average statutory corporate tax rate for developed (OECD) countries has dropped from 33.03% in 2000 to 25.85% in 2010.

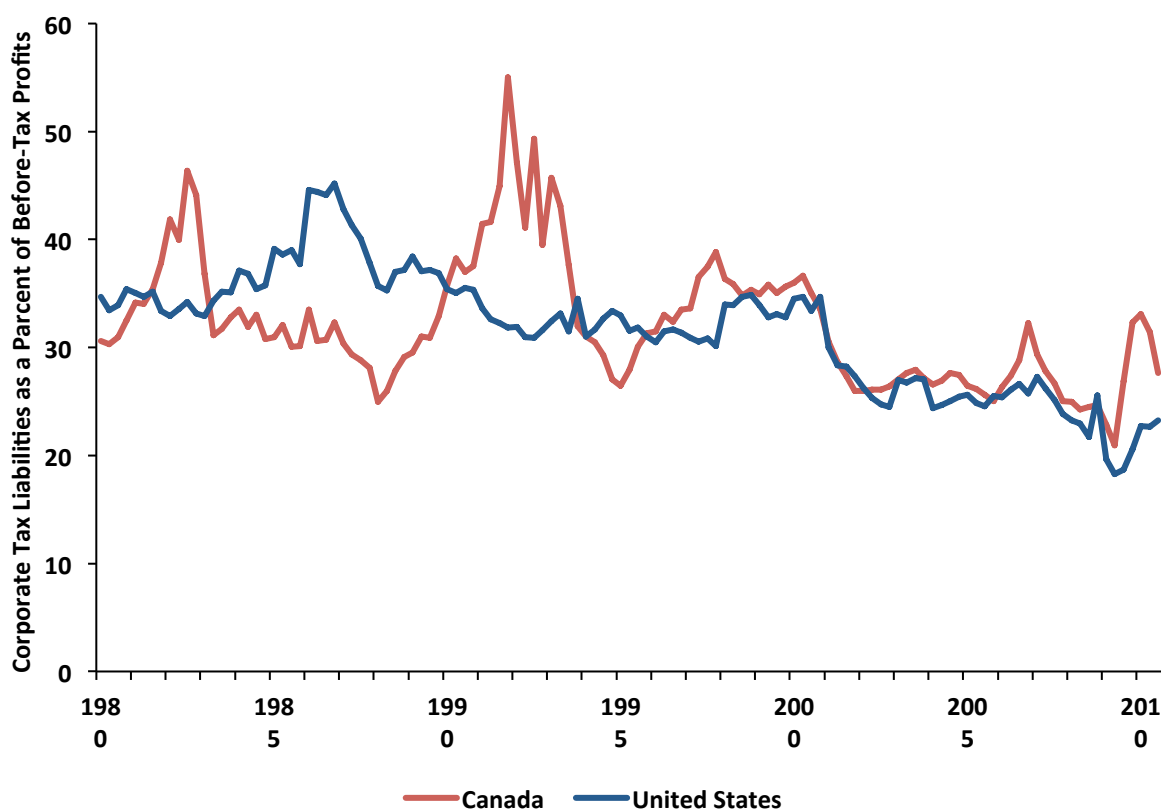
The three percentage point reduction in the federal corporate tax rate and the additional cuts in provincial taxes on business income that are planned in 2011 and 2012 will place Canada's combined rate just slightly lower than the current global and OECD statutory averages.

Canada's combined corporate tax rate needs to fall to 25% simply to allow Canada to catch up with the rest of the world.

But, statutory tax rates do not tell the whole story. They do not account for the tax deductions, credits, exemptions, and allowances that businesses are able to claim that offset at least some of their tax liabilities.

Last year Canada's combined statutory tax rate on corporate income was 9 percentage points lower than the average combined federal and state rate in the United States. However, when other corporate tax measures are taken into account, Canada's effective corporate tax rate was actually 7.8 percentage points higher than the 22.9% U.S. effective corporate tax rate recorded for the first three quarters of 2010.

Canada & the United States: Effective Corporate Tax Rates



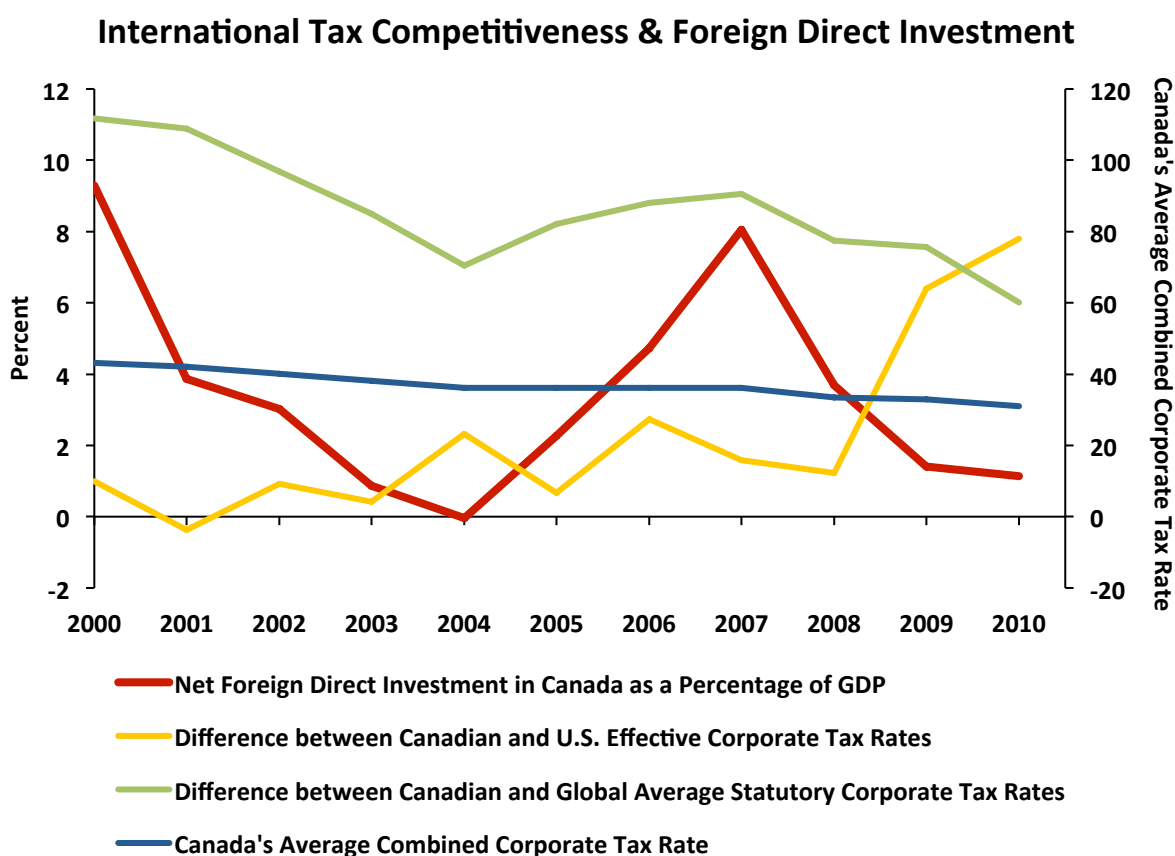
Canada's effective tax rate on corporate income has, in fact, exceeded the effective rate in the United States for most of the past twenty years.

Canada's combined corporate tax rate needs to fall to 25% simply to allow Canada to remain competitive with the United States in terms of the percentage of profits that are actually left in the hands of business after their taxes are paid.

Impact on Foreign Direct Investment

Lower corporate income tax rates increase returns on corporate investment. They are an advantage in attracting foreign direct business investment and retaining profits earned by foreign-based corporations operating in Canada.

However, over the past decade, reductions in Canada's effective and average combined statutory corporate tax rates have had little observable impact on net flows of foreign direct investment into the country. Net inflows of foreign direct investment fell from 9.3% to -0.04% of GDP between 2000 and 2004 before rebounding to 8.1% of GDP in 2007 and then again contracting to 1.4% of GDP by 2010.



There are several possible explanations as to why foreign direct investment has not responded more positively to reductions in Canada's corporate income tax rate over the past ten years:

- Corporations expand into foreign markets for a number of reasons – low corporate tax rates, access to markets, access to strategic assets like raw materials, technologies, and skilled labour, corporate takeovers, and lower costs of doing business. For instance, the

spike in foreign direct investment between 2006 and 2008 coincided with major foreign acquisitions of companies in Canada's resource processing sector. The prospect of lower corporate tax rates may have been a factor influencing those takeover decisions, but it was not the sole reason determining whether the investments would be made;

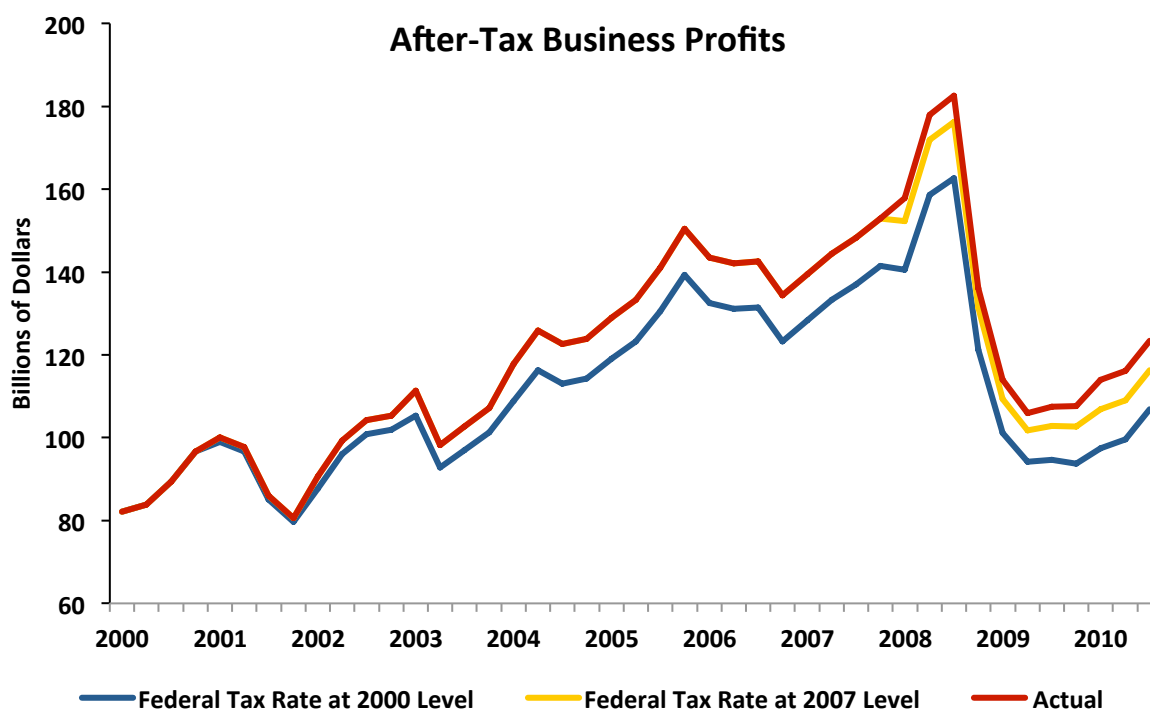
- Other economic factors may offset the positive advantages of lower corporate tax rates. The bursting of the dot-com bubble in 2000, the rapid rise of China as a major market and low-cost industrial producer, and the global financial meltdown and economic recession that began in 2007 have all had major impacts on net flows of foreign direct investment into Canada as well as Canadian direct investment into other countries;
- Other policy impediments like Canada's inter-provincial barriers to trade and commerce, unfavourable regulatory compliance costs, mounting costs and time delays associated with transactions across the Canada-U.S. border, restrictive trade practices implemented in other countries (like U.S. Buy-American provisions), Canadian restrictions on foreign ownership, and uncertainty with respect to the treatment of foreign direct investment in Canada may have offset tax advantages; and,
- In spite of the corporate tax rate reductions that have taken place, the fact that Canada is still uncompetitive with respect to the tax treatment of corporate income offered by many other countries, including the United States, may mean that lower tax rates in Canada are not yet sufficient to attract major new inflows of foreign direct investment.

The absence to date of any measurable impact on foreign direct investment does not mean, however, that lower corporate tax rates in Canada do not bring significant benefits to the Canadian economy. In fact, corporate tax rate reductions can be shown to have had a significant positive impact on the after-tax profitability of businesses operating in Canada. This, in turn, has boosted employment, expanded capital investment in new facilities, machinery and equipment, increased business spending in research and development, accelerated overall economic (GDP) growth, and led to higher levels of personal income for Canadians.

Federal and provincial tax rate reductions planned for 2011 and 2012 will strengthen Canada's international tax competitiveness, and that should help increase net flows of foreign direct investment into the country. However, the benefits of more foreign direct investment will come on top of the other positive impacts that corporate tax rate reductions have on the Canadian economy.

Impact on After-Tax Business Profits

By definition, lower corporate income tax rates increase the after-tax profitability of businesses.



Before-tax business profits amounted to \$170.0 billion on an annualized basis during the first three quarters of 2010. With corporate income tax liabilities of \$52.2 billion, after-tax profits were \$117.8 billion or 7.3% of Canada's Gross Domestic Product (GDP).

After-tax business profits in 2010 were \$16.5 billion higher than would have been the case if the federal government had not reduced corporate tax rates between 2000 and 2010. They were \$7.0 billion higher than would have been the case if federal corporate tax rate cuts had not been implemented between 2007 and 2010. Federal corporate income tax rate reductions have boosted after-tax business profits in total by \$99.4 billion since 2000 and by \$17.3 billion since 2007.

If Canada's economic recovery continues to strengthen, business profits should grow more rapidly than the economy as a whole in 2011 and 2012. Based on a cautious assumption that nominal GDP will increase at an average annual rate of 4.5% over the next two years, business profits can be expected to grow by an average 10% annually in both 2011 and 2012. **The three percentage point reduction planned in the federal corporate tax rate could then be expected to increase after-tax profits by an additional \$2.8 billion in 2011 and \$6.2 billion in 2012.**

Table 3: Estimating the Impact of Federal Corporate Tax Rate Reductions on After-Tax Profits

	Federal Tax Rate Reductions between 2000 and 2010	Federal Tax Rate Reductions between 2007 and 2010	Rate Reduction from 18% in 2010 to 15% in 2012
Year of Estimated Impact	2010	2010	2012
Impact on After-Tax Profits	+ \$16.5 billion	+ \$7.0 billion	+ \$6.2 billion
Cumulative Impact on After-Tax Profits	+ \$99.4 billion	+ \$17.3 billion	+ \$9.0 billion

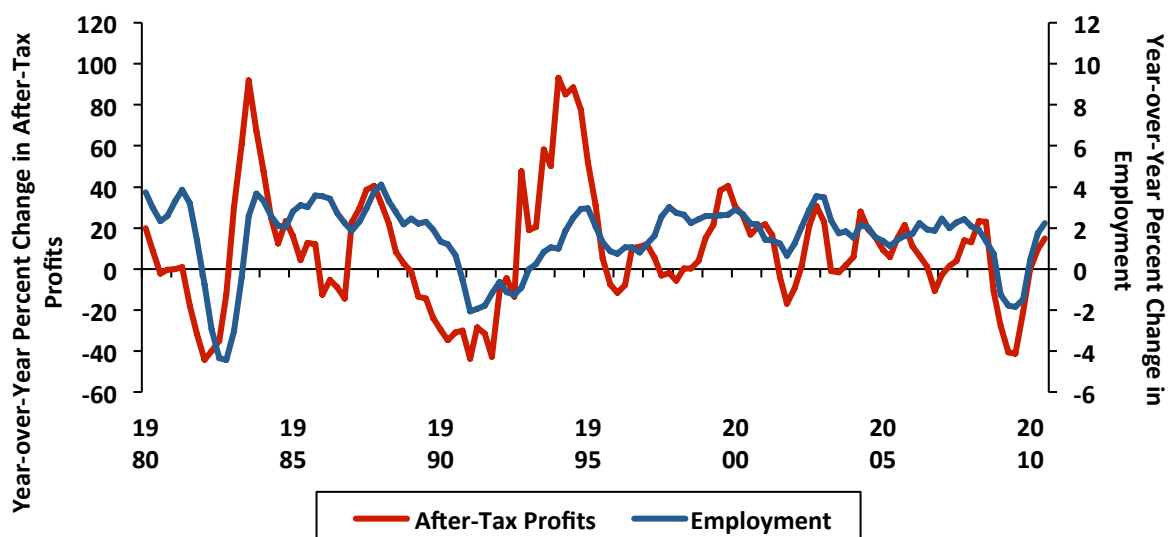
Impact on Employment

Lower corporate tax rates generate more jobs.

The impact of corporate tax rate reductions can be calculated on the basis of the observable relationships that exist on one hand between growth in after-tax business profits and employment and on the other between the after-tax profitability of Canadian business and Canada's unemployment rate.

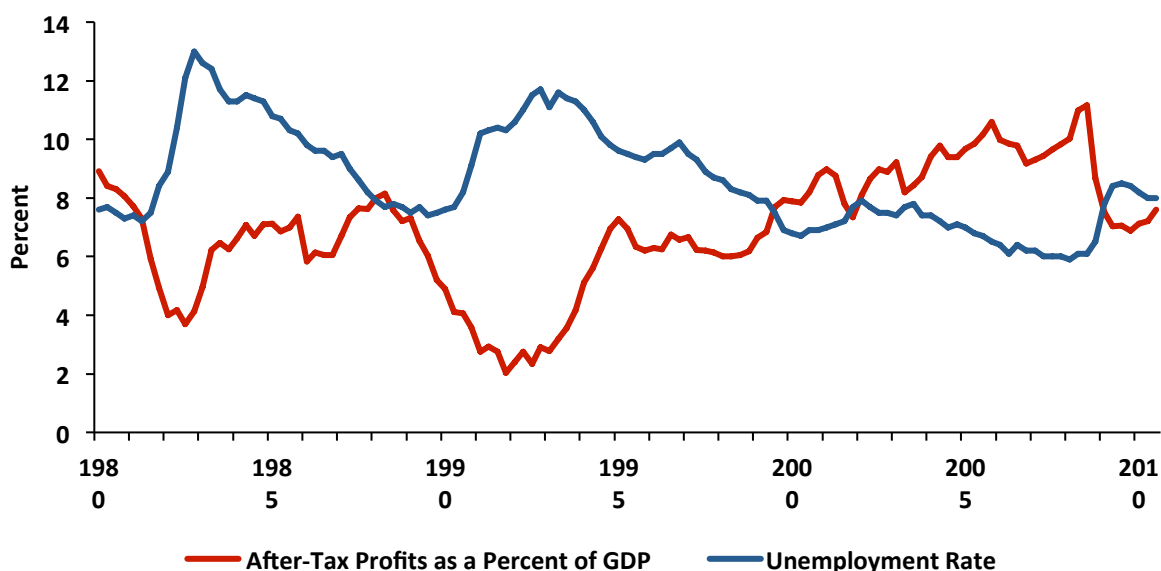
Changes in after-tax business profits are positively related to changes in the number of people employed in Canada. As after-tax profits increase, companies have more money to invest in growing their business or to distribute in dividends to investors who have financed business growth. When businesses grow they hire more people; employment also grows. On the other hand, when after-tax profits fall, business growth slows and companies respond by hiring fewer people or eliminating jobs altogether. As a result, employment growth also slows down or begins to contract.

After-Tax Profits & Employment



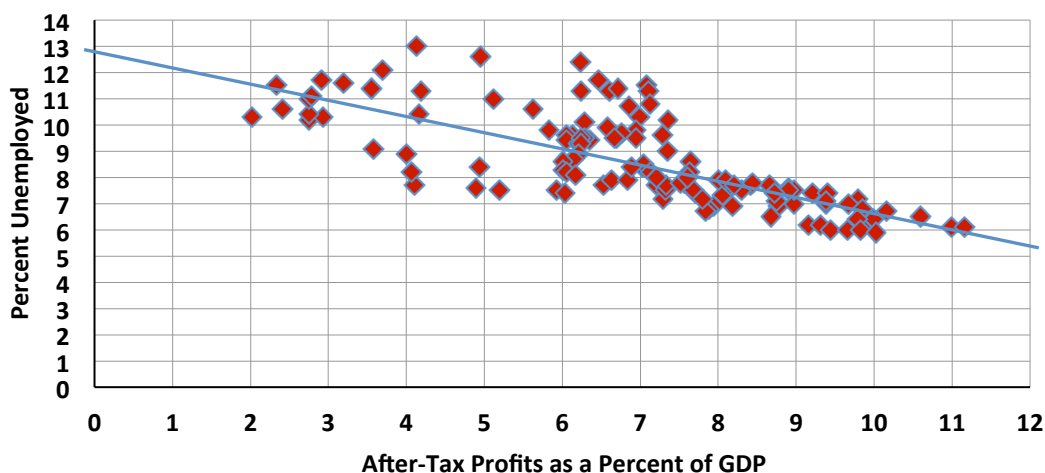
An even closer relationship can be observed between the after-tax profitability of Canadian business – measured in terms of after-tax profits as a percent of gross domestic product (GDP) – and the unemployment rate in Canada.

Jobs Depend on Business Profitability



In this case, it is a negative relationship. When business profitability declines, Canada's unemployment rate increases as companies cut jobs to save money. And, when after-tax profits grow more rapidly than the economy as a whole, businesses hire more people and the unemployment rate falls. In fact, for every percentage point increase in after-tax profits as a share of GDP, Canada's unemployment rate falls by an average of 0.67 percentage points. The relationship is especially strong when after-tax profits top 7% of GDP.

After-Tax Profitability & the Unemployment Rate



The impact of corporate tax rate reductions on employment can be estimated on the basis of this relationship.

Canada's unemployment rate averaged 8.1% during the first three quarters of 2010 with 17,089,000 people employed out of a labour force of 18,593,000.

If the federal government had not reduced its corporate tax rates over the past ten years, after-tax business profits would have been \$16.5 billion lower during the first three quarters of 2010. They would have amounted to an annualized \$101.3 billion or 6.3% of GDP. Canada's unemployment rate would have been 8.8% instead of 8.1%. Consequently, 127,000 more Canadians were employed in 2010 than would have been the case if federal corporate tax rate reductions had not been made between 2000 and 2010.

Similarly, if reductions in federal corporate tax rates had not been implemented between 2007 and 2010, after-tax profits would have been \$7.0 billion lower last year. They would have amounted to an annualized \$110.8 billion or 6.9% of GDP for the first three quarters of 2010. Canada's unemployment rate would have been higher at 8.4%. Federal corporate tax rate reductions implemented since 2007 kept 54,000 more Canadians employed in 2010 than would have been the case if they had not been made.

The federal corporate tax rate is slated to fall by another three percentage points to 15% by 2012. If Canada's economic recovery continues to strengthen, business profits should grow more rapidly than the economy as a whole in 2011 and 2012. Based on the assumption that nominal GDP will increase at an average annual rate of 4.5% over the next two years, business profits can be expected to grow by an average 10% annually in both 2011 and 2012.

By 2012, a three percentage point reduction in the corporate tax rate would then lead to a 0.39 point increase in after-tax profits as a percent of GDP. This would in turn reduce Canada's unemployment rate by 0.26 percentage points – translating into the creation of 49,900 net new jobs.

Table 4: Estimating Employment Impacts of Federal Corporate Tax Rate Reductions

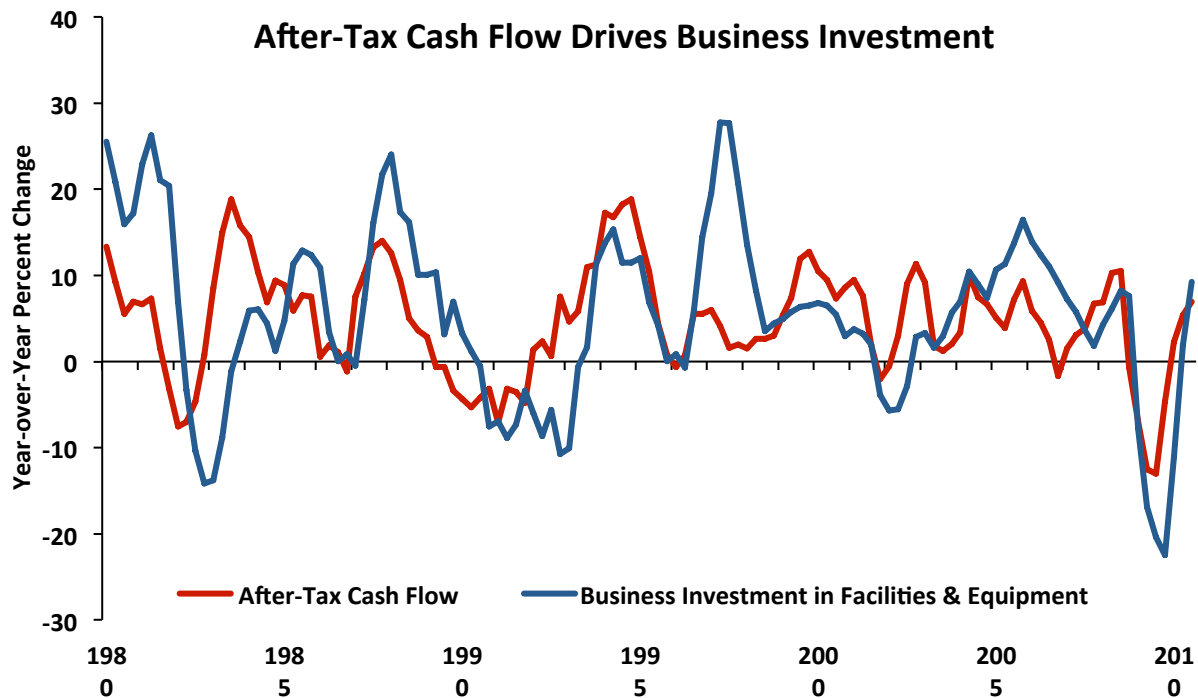
	Federal Tax Rate Reductions between 2000 and 2010	Federal Tax Rate Reductions between 2007 and 2010	Rate Reduction from 18% in 2010 to 15% in 2012
Year of Estimated Impact	2010	2010	2012
Impact on After-Tax Profits	+ \$16.5 billion	+ \$7.0 billion	+ \$6.2 billion
Impact on After-Tax Profits as a Percent of GDP	+ 1.02 percentage points	+ 0.43 percentage points	+ 0.39 percentage points
Impact on Canada's Unemployment Rate	- 0.68 percentage points	- 0.29 percentage points	- 0.26 percentage points
Impact on Employment	+ 127,000 net jobs	+ 54,000 net jobs	+ 49,900 net jobs

Impact on Business Investment

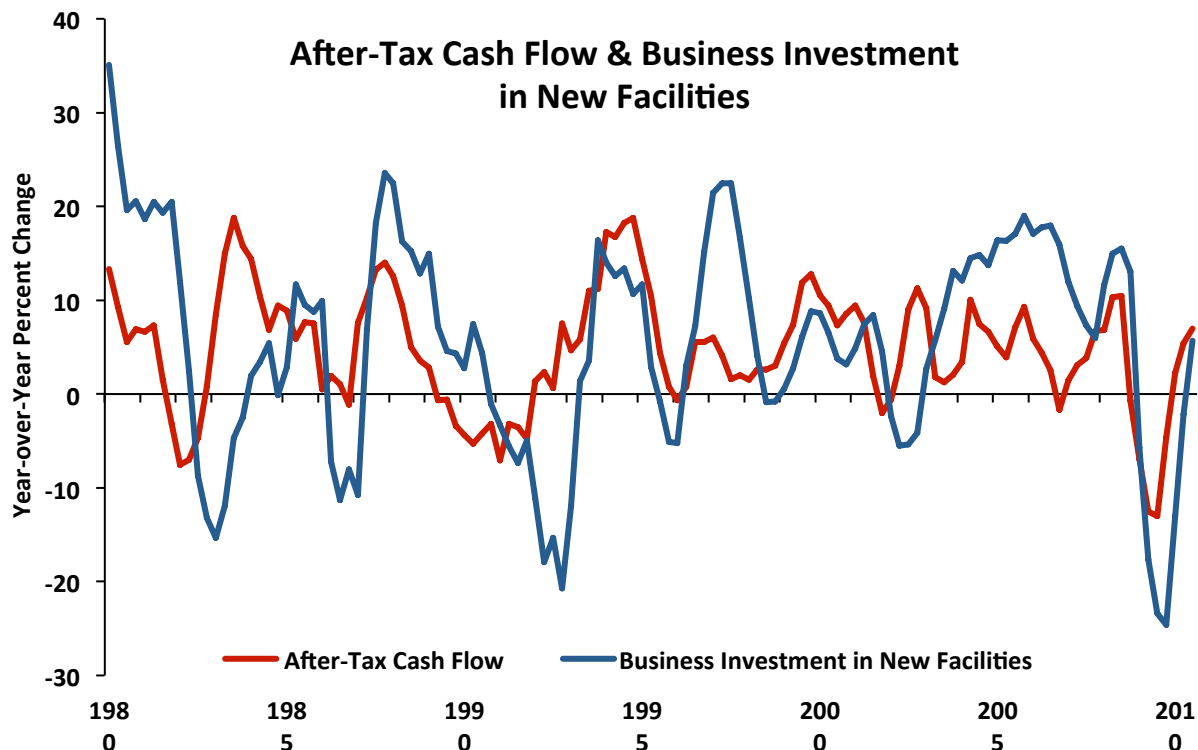
Lower corporate tax rates encourage businesses to invest more in new facilities, machinery, and equipment.

For business, capital spending budgets depend on after-tax cash flow performance – in other words, on the cash that companies generate internally that is available for investment purposes or that they use to raise additional financing for investments in new or existing assets. After-tax cash flow comes from after-tax profits plus accumulated savings in the form of capital consumption allowances.

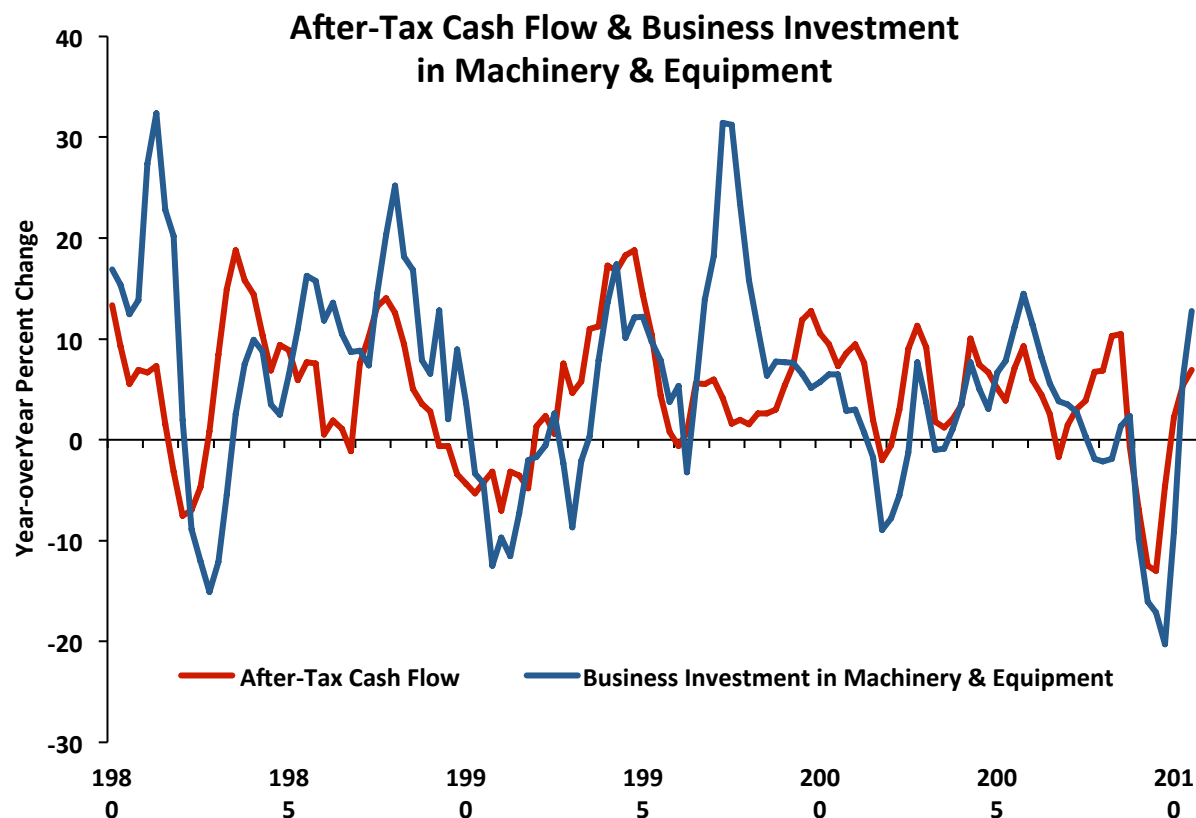
There is a strong positive relationship between after-tax cash flow and overall capital investment activity by Canadian business. Changes in after-tax cash flow usually precede changes in business investment in new facilities and equipment by three to six months. On average, after taking lag times into account, every percentage point change in after-tax cash flow generates a 0.86 percentage point change in total business investment.



After-tax cash flow is positively related to business investment in new facilities – the construction of new non-residential buildings and engineering structures. Over the past thirty years, the lag time between changes in cash flow and investment in new facilities has varied from 12 months in the 1980s to an average of three months for most of the past decade.



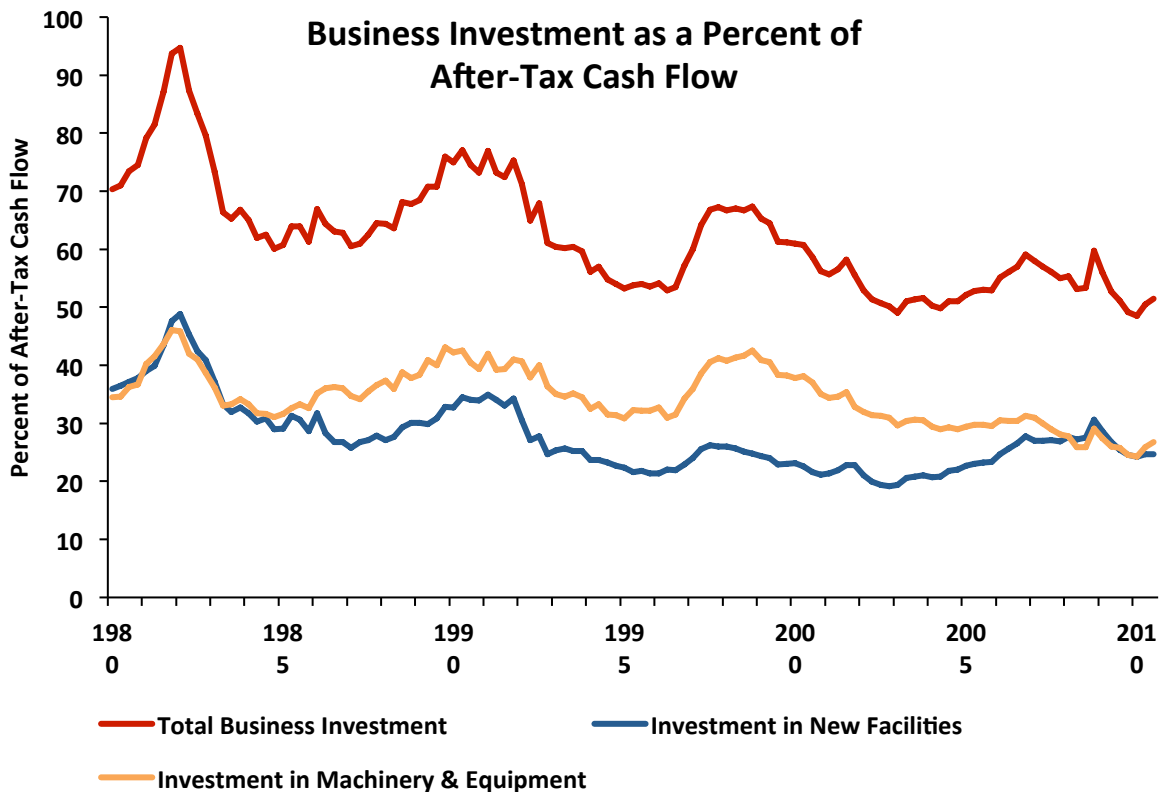
There is also a close positive relationship between after-tax cash flow performance and business investment in new machinery and equipment. Again, lag times have shortened from an average of six months in the 1980s to three months or less during the past decade.



Canadian businesses have invested a declining share of after-tax cash flow in both new facilities and machinery and equipment over the past thirty years. In the 1980s, total business investment averaged around 70% of after-tax cash flow. The share fell to an average of 63% during the 1990s and then to an average of 53% between 2000 and 2010. During the first three quarters of 2010, capital investment amounted to 50.2% of corporate after-tax cash flow.

Business investment in new facilities declined in relation to after-tax cash flow between 1980 and 2000. However, non-residential construction activity has tended to grow faster than cash flow over much of the past decade. Businesses in Canada invested 24.5% of after-tax cash flow in new facilities during the first three quarters of 2010.

Business investment in machinery and equipment has declined in relation to after-tax cash flow for most of the past decade (although after price changes are taken into account, real investment in machinery and equipment has remained at a consistent level of after-tax cash flow throughout the past thirty years). Businesses in Canada invested 25.6% of after-tax cash flow in new machinery and equipment during the first three quarters of 2010.



The impact of corporate tax rate reductions on business investment activity can be gauged on the basis of these relationships between investment and after-tax cash flow.

Federal corporate tax rate reductions undertaken between 2000 and 2010 boosted after-tax cash flow by 5.0% during the first three quarters of 2010 and by 3.3% on average over the course of the past decade. As a result:

- Total business investment was \$8.3 billion (5.0%) higher in 2010 and \$53.1 billion (2.7%) higher between 2000 and 2010;
- Investment in new facilities was \$4.0 billion (5.0%) higher in 2010 and \$23.8 billion (2.7%) higher between 2000 and 2010; and,
- Investment in machinery and equipment was \$4.2 billion (5.0%) higher in 2010 and \$29.3 billion (2.8%) higher between 2000 and 2010, than would have been the case if the tax reductions had not been made.

Federal corporate tax rate reductions implemented between 2007 and 2010 increased after-tax cash flow by 2.1% for the first three quarters of 2010 and by an average 1.7% over the past three years. As a result:

- Total business investment was \$3.5 billion (2.1%) higher in 2010 and \$8.7 billion (1.6%) higher between 2000 and 2010;
- Investment in new facilities was \$1.7 billion (2.1%) higher in 2010 and \$4.4 billion (1.6%) higher between 2000 and 2010; and,
- Investment in machinery and equipment was \$1.8 billion (2.1%) higher in 2010 and \$4.3 billion (1.6%) higher between 2000 and 2010, than would have been the case if the tax reductions had not been made.

Looking ahead and assuming again that business profits increase by at least 10% annually over the next two years, the three percentage point reduction planned in the federal corporate tax rate can be expected to increase after-tax cash flow by an additional \$6.2 billion in 2012. That would, in turn, increase total business investment by \$3.1 billion or 2.2% that year. The tax rate cuts would boost investment in new facilities by \$1.5 billion and investment in machinery and equipment by \$1.6 billion.

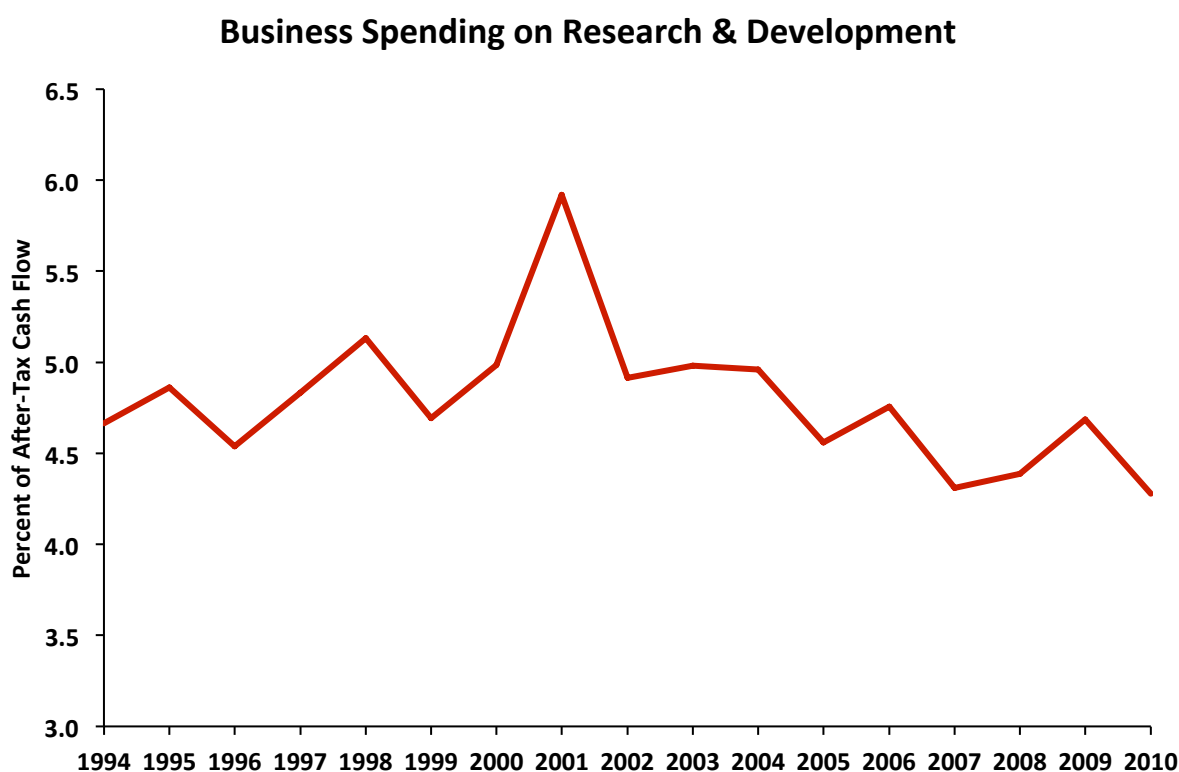
Table 5: Estimating Investment Impacts of Federal Corporate Tax Rate Reductions

	Federal Tax Rate Reductions between 2000 and 2010	Federal Tax Rate Reductions between 2007 and 2010	Rate Reduction from 18% in 2010 to 15% in 2012
Year of Estimated Impact	2010	2010	2012
Impact on After-Tax Cash Flow	+ \$16.5 billion + 5.0%	+ \$7.0 billion + 2.1%	+ \$6.2 billion + 2.2%
Cumulative Impact on After-Tax Cash Flow	+ \$99.4 billion + 3.3%	+ \$17.3 billion + 1.7%	+ \$9.0 billion + 1.8%
Impact on Business Investment	+ \$8.3 billion + 5.0%	+ \$3.5 billion + 2.1%	+ \$3.1 billion + 2.2%
Cumulative Impact on Business Investment	+ \$53.1 billion + 2.7%	+ \$8.7 billion + 1.6%	+ \$4.5 billion + 1.8%
Impact on Investment in Facilities	+ \$4.0 billion + 5.0%	+ \$1.7 billion + 2.1%	+ \$1.5 billion + 2.2%
Cumulative Impact on Investment in Facilities	+ \$23.8 billion + 2.7%	+ \$4.4 billion + 1.6%	+ \$2.3 billion + 1.8%
Impact on Investment in Machinery & Equipment	+ \$4.2 billion + 5.0%	+ \$1.8 billion + 2.1%	+ \$1.6 billion + 2.2%
Cumulative Impact on Investment in Machinery & Equipment	+ \$29.3 billion + 2.7%	+ \$4.3 billion + 1.6%	+ \$2.2 billion + 1.8%

Impact on Innovation

Lower corporate tax rates encourage businesses to spend more on research and development.

Business spending on research and development in Canada amounts to a fairly consistent proportion of after-tax cash flow. The ratio of R&D spending to cash flow has varied between 4.3% and 5.9% over the past fifteen years. In 2010, R&D budgets equalled 4.3% of after-tax cash flow.



The impact of corporate tax rate reductions can be estimated on the basis of this relationship.

Federal corporate tax rate reductions between 2000 and 2010 boosted after-tax cash flow by \$16.5 billion in 2010, and so would have led to an additional \$709.5 million in R&D spending by business last year. Since 2000, corporate tax rate reductions have added \$99.4 billion to after-tax cash flow. This has, in turn, generated \$4.8 billion more in research and development expenditures by companies in Canada over the past ten years.

Federal corporate tax rate reductions between 2007 and 2010 increased after-tax cash flow by \$7.0 billion in 2010, and so would have led to an additional \$299.4 million in R&D spending by business last year. Since 2007, corporate tax rate reductions have added \$17.3 billion to after-

tax cash flow. This has, in turn, generated \$769.9 million more in research and development expenditures by companies in Canada over the past three years.

Assuming that business profits increase by at least 10% annually over the next two years, the planned three percentage point reduction in the federal corporate tax rate can be expected to increase after-tax cash flow by an additional \$6.2 billion in 2012. That would, in turn, increase R&D expenditures by Canadian business by an estimated \$272.8 million in 2012 and by \$396.0 million cumulatively over the next two years.

Table 6: Estimating R&D Impacts of Federal Corporate Tax Rate Reductions

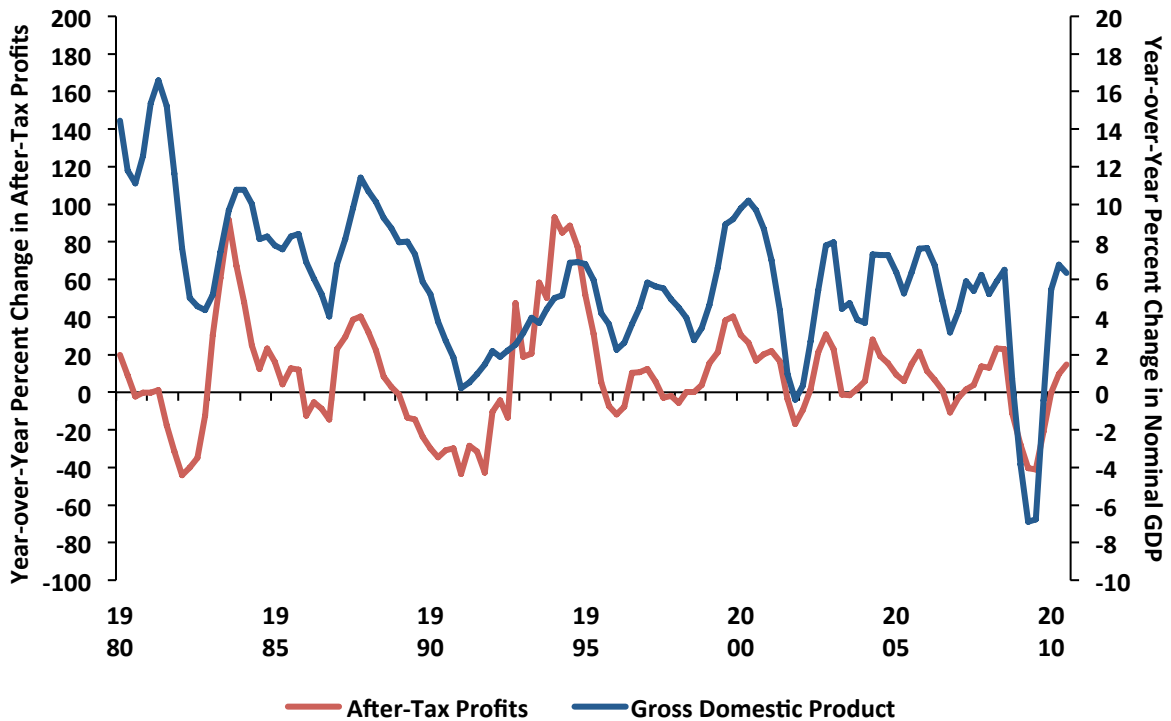
	Federal Tax Rate Reductions between 2000 and 2010	Federal Tax Rate Reductions between 2007 and 2010	Rate Reduction from 18% in 2010 to 15% in 2012
Year of Estimated Impact	2010	2010	2012
Impact on After-Tax Cash Flow	+ \$16.5 billion + 5.0%	+ \$7.0 billion + 2.1%	+ \$6.2 billion + 2.2%
Cumulative Impact on After-Tax Cash Flow	+ \$99.4 billion + 3.3%	+ \$17.3 billion + 1.7%	+ \$9.0 billion + 1.8%
Impact on Business R&D Spending	+ \$709.5 million + 5.0%	+ \$299.4 million + 2.1%	+ \$272.8 million + 2.2%
Cumulative Impact on Business R&D Spending	+ \$4.8 billion + 2.7%	+ \$769.9 million + 1.6%	+ \$396.0 million + 1.8%

Impact on Overall Economic Growth

Lower corporate tax rates accelerate economic growth.

Higher levels of employment, business investment, and R&D spending lead to stronger GDP performance. All are positively related to increases in after-tax business profits. Over the past thirty years, changes in GDP have lagged behind changes in after-tax profits by a period of three to six months. Taking lag times into account, every percentage point change in after-tax profits generates a 0.3 percentage point change in nominal GDP.

After-Tax Profits Propel Economic Growth



The impact of corporate tax rate reductions on Canada's economic growth rate can be estimated on the basis of this relationship.

The one percentage point reduction in the federal corporate income tax rate implemented in 2010 generated \$8.5 billion for the Canadian economy and added 0.5 percentage points to Canada's GDP growth rate last year.

As a result of federal corporate tax rate reductions between 2000 and 2010, after-tax business profits were 16.3% higher than they would otherwise have been in 2010. Canada's GDP was 4.9% higher during the first three quarters of 2010 than would have been the case if federal corporate tax cuts had not been made – adding \$75.2 billion to the Canadian economy.

Federal corporate tax rate reductions between 2007 and 2010 increased after-tax profits in 2010 by 6.3% above the level had the tax cuts not been implemented. As a result, Canada's GDP was 1.9% higher during the first three quarters of last year than would have been the case if the tax cuts had not been made – adding \$30.0 billion to the Canadian economy.

Federal corporate tax rate reductions in 2011 and 2012 should boost after-tax business profits by an additional 5.3%, and as a result can be expected to increase Canada's economic

growth rate by 1.6 percentage points – adding \$25.8 billion to the Canadian economy – over the next two years.

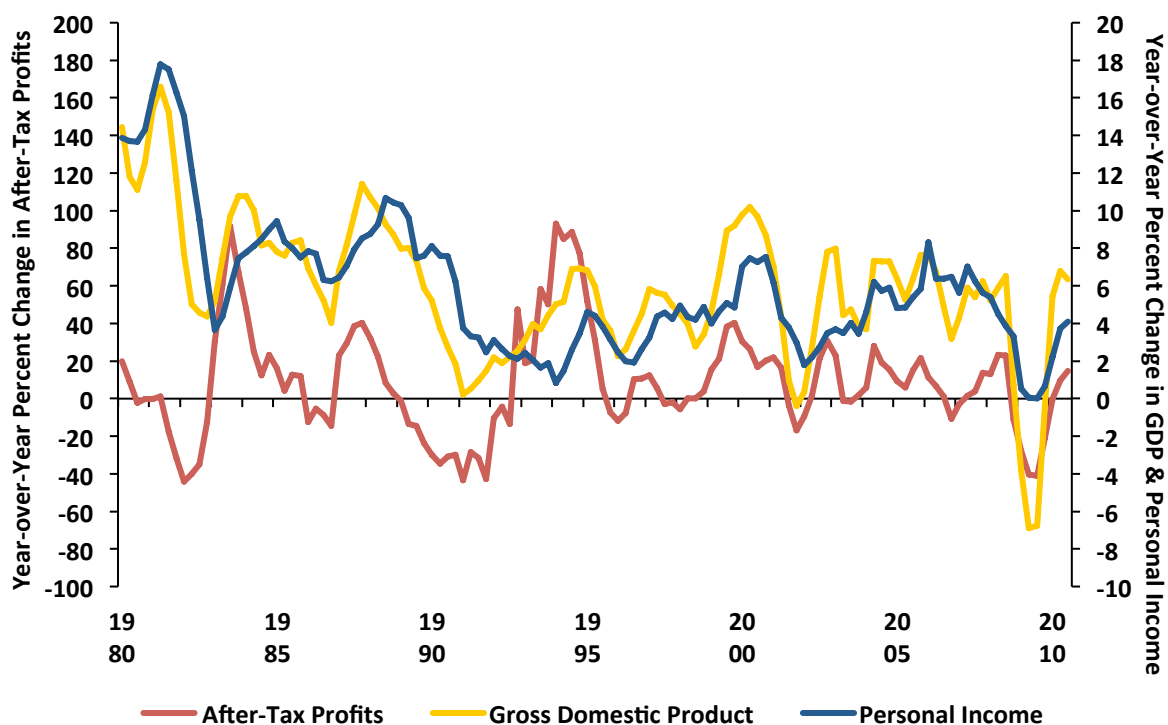
Table 7: Estimating GDP Impacts of Federal Corporate Tax Rate Reductions

	Federal Tax Rate Reductions between 2000 and 2010	Federal Tax Rate Reductions between 2007 and 2010	Rate Reduction from 18% in 2010 to 15% in 2012
Year of Estimated Impact	2010	2010	2012
Impact on After-Tax Profits	+ \$16.5 billion + 16.3%	+ \$7.0 billion + 6.3%	+ \$6.2 billion + 5.3%
Impact on GDP	+ \$75.2 billion + 4.9%	+ \$30.0 billion + 1.9%	+ \$25.8 billion + 1.6%

Impact on Personal Income

Lower corporate income tax rates boost personal incomes for Canadians.

Growth in After-Tax Profits, GDP & Personal Income



Growth rates for personal income are very closely tied to overall economic growth rates with lag times of three to six months. Taking lags into account, an one-percentage point change in Canada's GDP leads to an average 0.75 percentage point change in personal income. There is thus an indirect positive relationship between changes in after-tax business profits and growth in personal income for Canadians. An one-percentage point change in after-tax profits translates into a 0.23 percentage point change in personal income.

The impact that corporate tax rate reductions have had on Canada's economic growth rate can be estimated on the basis of this relationship.

The one percentage point reduction in the federal corporate income tax rate implemented in 2010 added 0.5% to Canada's GDP last year and as a result can be expected to boost the personal income of Canadians by 0.4% or \$4.7 billion (\$138 on a per capita basis).

As a result of federal corporate tax rate reductions between 2000 and 2010, after-tax business profits were 16.3% higher than they would otherwise have been in 2010. Canada's GDP was 4.9% higher and total personal income 3.7% higher than would have been the case if federal corporate tax cuts had not been made. Federal corporate tax rate reductions since 2000 have generated an additional \$44.9 billion in personal income or \$1,310 per capita.

Federal corporate tax rate reductions between 2007 and 2010 increased after-tax profits in 2010 by 6.3%. As a result, Canada's GDP was 1.9% higher and total personal income 1.4% higher than would have been the case if federal corporate tax cuts had not been made. Federal corporate tax rate reductions since 2007 have generated an additional \$17.8 billion in personal income or \$519 per capita.

Federal corporate tax rate reductions in 2011 and 2012 should boost after-tax business profits by an additional 5.3%, and as a result can be expected to increase Canada's economic growth rate by 1.6 percentage points. This should raise personal incomes by 1.2% or \$15.2 billion (\$440 on a per capita basis) by 2012.

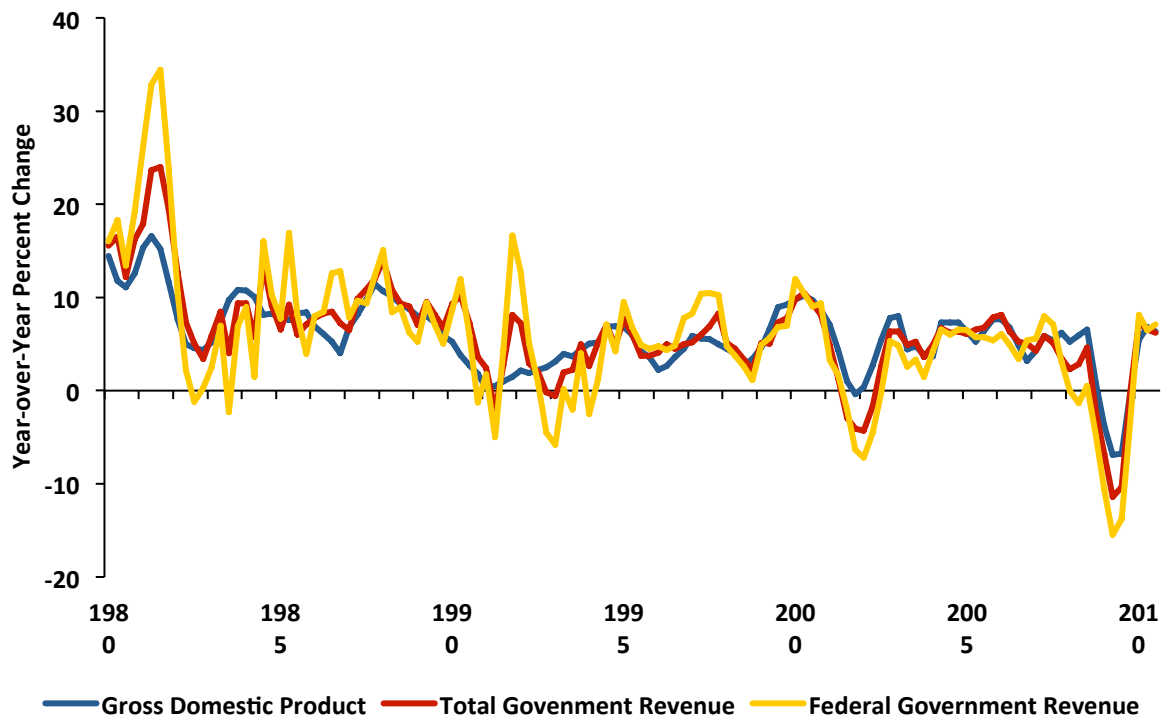
Table 8: Estimating Income Impacts of Federal Corporate Tax Rate Reductions

	Federal Tax Rate Reductions between 2000 and 2010	Federal Tax Rate Reductions between 2007 and 2010	Rate Reduction from 18% in 2010 to 15% in 2012
Year of Estimated Impact	2010	2010	2012
Impact on After-Tax Profits	+ \$16.5 billion + 16.3%	+ \$7.0 billion + 6.3%	+ \$6.2 billion + 5.3%
Impact on GDP	+ \$75.2 billion + 4.9%	+ \$30.0 billion + 1.9%	+ \$25.8 billion + 1.6%
Impact on Personal Income	+ \$44.9 billion + 3.7%	+ \$17.8 billion + 1.4%	+ \$15.2 billion + 1.2%
Impact on Per Capita Personal Income	+ \$1,310	+ \$519	+ \$440

Impact on Government Budgets

Lower corporate income tax rates increase overall government revenues.

GDP Drives Government Revenues



Governments earn revenues from a variety of taxes and transfer payments from individuals, businesses, and other levels of government. For that reason, total government revenues are closely tied to the performance of the Canadian economy as a whole.

On average over the past thirty years, total revenue collected by all levels of government in Canada has increased 4% more rapidly than the growth rate in nominal GDP. On the other hand, total revenue collected by the federal government increased 0.5% more slowly than Canada's rate of economic growth. However, tax reforms introduced at both federal and provincial levels of governments have slowed the pace of government revenue growth since 2000. On average over the past decade, revenues collected by all levels of government have increased at 75% of the pace of nominal GDP growth. Total federal revenues have increased only 52% as rapidly as the economy as a whole. Last year was different. For the first three quarters of 2010, government revenues grew at almost the same rate as GDP. Federal government revenues grew by 5.7% and revenues for all levels of governments increased by 5.2% while nominal GDP expanded by 5.4% on a year-over-year basis.

The net cost of corporate tax rate reductions for government can be calculated on the basis of these relationships.

The one percentage point reduction made in the federal corporate income tax rate in 2010 cost the federal government an estimated \$1.7 billion in corporate tax revenue but generated an additional \$8.5 billion in GDP last year. As a result, the federal government gained \$1.07 billion in other forms of revenue, and all levels of governments collected an additional \$2.93 billion than would have been the case if the tax cut had not been made.

Federal corporate tax rate reductions implemented between 2000 and 2010 cost the federal government an estimated \$16.5 billion in corporate tax revenue last year. However, they also generated \$75.2 billion in additional GDP than would have been the case if the tax cuts had not been made. As a result, the federal government collected an extra \$10.6 billion in other forms of revenue, and total revenues for all levels of government were \$28.9 billion higher in 2010.

The federal corporate tax rate reductions that have taken place since 2007 cost the federal government an estimated \$7.0 billion in corporate tax revenue in 2010. On the other hand, they contributed an additional \$30.0 billion in GDP to the Canadian economy last year. As a result, the federal government collected an extra \$4.2 billion in other forms of revenue, and total revenues for all levels of government were \$11.5 billion higher in 2010 than they would have been if the tax cuts had not been made.

Federal corporate tax rate reductions this year and next are expected to cost the federal government \$6.2 billion in corporate tax revenues in 2012 while increasing GDP by 1.6 percentage points and generating an additional \$25.8 billion for the Canadian economy. Assuming that government revenues continue to grow at the same rate as GDP over that period of time, planned federal corporate tax cuts will boost other federal revenues by \$3.6 billion and increase total revenues for all levels of government by \$9.9 billion by 2012. Taking a less optimistic view that government revenues grow more slowly in relation to GDP (assuming the same average rate recorded over the past ten years), planned federal corporate tax cuts can be expected to boost other federal revenues by \$1.9 billion and increase total revenues for all levels of government by \$7.5 billion by 2012.

The impact that corporate tax rate reductions have on government revenues means that:

- The net fiscal cost to a government that cuts its corporate income tax rate is lower than the amount of corporate tax revenues it foregoes;
- More revenues will be generated for other governments than for the jurisdiction that implements a corporate tax reduction; and,
- Corporate tax cuts deliver a net fiscal benefit to the government sector – more revenues are generated across all levels of government in Canada than lost as a result of tax rate reductions.

Table 9: Estimating Fiscal Impacts of Federal Corporate Tax Rate Reductions

	Federal Tax Rate Reductions between 2000 and 2010	Federal Tax Rate Reductions between 2007 and 2010	Rate Reduction from 18% in 2010 to 15% in 2012
Year of Estimated Impact	2010	2010	2012
Corporate Income Taxes Foregone	\$16.5 billion	\$7.0 billion	\$6.2 billion
Impact on Federal Revenue from GDP Growth	+ \$10.6 billion	+ \$4.2 billion	+ \$1.9 to \$3.6 billion
Net Fiscal Impact for Federal Government	- \$5.9 billion	- \$2.8 billion	- \$4.3 to - \$2.6 billion
Impact on Total Government Revenues from GDP Growth	+ \$28.9 billion	+ \$11.5 billion	+ \$7.5 to \$9.9 billion
Net Fiscal Impact for all Levels of Government	+ \$12.4 billion	+ \$4.5 billion	+ \$1.3 to \$3.7 billion

The Importance of Planned Corporate Tax Rate Reductions

The federal government cut its corporate tax rate from 18% to 16.5% on January 1st, 2011 and plans to reduce it to 15% of business profits as of January 1st, 2012. Meanwhile, provincial governments will also be reducing their tax rates on general corporate income over the next two years. By 2012, Canada's average combined statutory corporate tax rate is slated to fall to 25%.

These planned tax rate reductions will enhance Canada's international tax competitiveness, placing the combined statutory corporate tax rate at the current global average and lowering Canada's effective tax rate on business income to a level just below that of the United States.

They will also generate significant positive benefits for the Canadian economy. The economic impacts of planned corporate tax rate cuts by the provinces will equal those resulting from rate reductions by the federal government.

Based on the assumption that the Canadian economy will grow by an average of 4.5% annually and that corporate profits before tax will increase at an average annual rate of 10% over the next two years, the combined impacts of federal and provincial corporate tax rate reductions in 2011 and 2012 can be expected to:

- Increase after-tax business profits by \$12.4 billion or 10.6%;
- Lower Canada's unemployment rate by 0.52 percentage points and boost employment by 98,800 net jobs;
- Increase total business investment by \$6.2 billion or 4.4%. (Investment in new facilities can be expected to rise by \$3.0 billion and investment in machinery and equipment by \$3.2 billion.);
- Increase business spending on research and development by \$546 million or 4.4%;
- Boost nominal GDP by \$51.6 billion or 3.2%;
- Increase personal incomes of Canadians by \$30.4 billion or 2.4%;
- Increase per capita personal income by \$880; and,
- Contribute \$2.6 billion to \$3.7 billion in additional net revenues for all levels of government.

Sources

Federal corporate income tax rates are from Finance Canada.

Canadian and international statutory corporate income tax rates are found in KPMG's *Canadian Corporate Income Tax Rates* and *Corporate and Indirect Tax Survey 2010* both published in 2010.

The effective corporate income tax rate for the United States is derived from data sourced from the *National Income and Product Accounts* of the U.S. Bureau of Economic Analysis.

All other data and statistical analyses are sourced or derived from the *National Income and Expenditure Accounts*, *Balance of International Payments Accounts*, *Labour Force Survey*, and *Gross Domestic Expenditures on Research and Development in Canada and the Provinces* published by Statistics Canada.

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