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The University of Calgary is home to scholars in 16 faculties (offering more than 80 academic programs) and 36 Research Institutes and Centres including *The School of Public Policy*. Under the direction of Jack Mintz, Palmer Chair in Public Policy, and supported by more than 100 academics and researchers, the work of The School of Public Policy and its students contributes to a more meaningful and informed public debate on fiscal, social, energy, environmental and international issues to improve Canada's and Alberta's economic and social performance.

## ONTARIO'S BOLD MOVE TO CREATE JOBS AND GROWTH

### IMPACT OF THE 2009 ONTARIO BUDGET AND OTHER RECENT TAX MEASURES ON INVESTMENT, JOBS, AND INCOMES

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#### SUMMARY

- The 2009 Ontario Budget measures, together with other recent tax changes, will have a profound impact on Ontario's competitiveness by lowering the tax burden on new business investment.
- Within ten years, Ontario will benefit from:
  - increased capital investment of \$47 billion;
  - increased annual incomes of up to 8.8%, or \$29.4 billion; and
  - an estimated 591,000 net new jobs.

*Ce document est disponible en français.*

This paper documents the impact of the 2009 Ontario Budget and other recent tax changes on capital investment, jobs, and incomes in the province.

In the March 2009 Budget, Ontario announced it will harmonize its sales tax with the federal goods and services tax (GST) as well as reduce corporate and personal taxes. The Budget measures will have a profound impact on the willingness of business to invest in Ontario since corporate tax rate reductions and the adoption of the federal GST base would result in the virtual elimination of taxes on capital goods and business intermediate inputs once fully phased in.

Since 1980, when I began modelling the impact of taxes on investment, this is the largest change ever seen in a single budget, leading to the sharpest reduction in the tax burden on capital investment in any one province. Coupled with federal reductions in corporate taxes and Ontario's already legislated elimination of all remaining capital taxes,<sup>1</sup> Ontario will see its effective tax rate on new investments by medium and large businesses plummet from 33.6% in 2009 to 23.7% in 2010 and then to 18.5% by 2018. The province will then have an effective tax rate on non-resource investments that is similar to most other provinces, including Alberta, British Columbia, and Quebec. Ontario will also improve its international competitiveness dramatically with a lower tax burden on new investment compared with the average of 20 major industrialized and emerging economies.

Small businesses will also benefit substantially from the 2009 Budget. The effective tax rate on small business investment will fall by more than half, from 28.6% to 13.3%, due to the one percentage point reduction in the corporate tax rate and sales tax harmonization. Sales tax harmonization will have a large impact since the Ontario retail sales tax especially hurts investment in machinery that Ontario's small businesses use intensively.

Within ten years, the lower tax burden on investment will lead to increases in capital investment of \$47 billion and in annual incomes of between 4.4% and 8.8%, and to the creation of an estimated 591,000 net new jobs.

## **WHAT THE 2009 ONTARIO BUDGET INTRODUCED**

The Ontario government introduced two measures in its March 2009 Budget that will have a significant impact on the tax burdens faced by businesses investing in the province.

The first set of measures is a substantial reduction in the general corporate income tax rate from 14% to 10% over the period July 2010 to July 2013. Effective July 1, 2010, the 12% corporate income tax rate on manufacturing and processing, mining, logging, farming, and

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<sup>1</sup> Ontario is eliminating its remaining capital tax on businesses on July 1, 2010. This follows the January 1, 2007 elimination of capital tax for firms primarily engaged in manufacturing and processing, mining, logging, farming or fishing activities in Ontario. In the next several years, these tax reductions will be offset in part by the phasing-out of some business tax incentives provided by the federal and Ontario governments, including accelerated depreciation for manufacturing equipment.

fishing income will be reduced to 10%, thereby resulting in the eventual elimination of preferential corporate income tax rates for some business sectors by 2013, when the 10% rate will apply to all income earned by medium and large businesses. The small business tax rate will decline from 5.5% to 4.5% by July 1, 2010 and the small business deduction surtax will be eliminated.

The second set of measures is related to the harmonization of the Ontario sales tax with the federal GST. Ontario will replace its retail sales tax with a value-added tax similar to the federal tax that would be collected by Ottawa under a tax collection agreement. Since roughly one-third of provincial retail sales taxes currently apply to business purchases of intermediate and capital goods, the adoption of the value-added tax base will enable most businesses to claim credits for taxes on their business inputs that result in higher costs for them. During a transition period, some businesses will have restrictions on certain input tax credits for specific inputs. These restrictions will be eased over time, however, as full input tax credits are phased in, rather than adopted on July 1, 2010.<sup>2</sup> With respect to capital purchases, most input tax credits will be provided in 2010 — it is estimated that the 2010 implementation of sales tax reform will result in a reduction of the sales tax on capital purchases from about 3.9% to 0.2% for machinery and from 3.8% to zero for structures. By 2018, capital purchases generally will not be subject to any sales tax unless purchased by tax-exempt providers.

The 2009 Budget changes as well as other federal and Ontario tax changes are documented below.

## MEASURING THE TAX BURDEN ON NEW INVESTMENT

In the analysis below, the marginal effective tax rate (METR) on capital<sup>3</sup> is measured to provide a basis for understanding how the tax system affects investment decisions. To undertake new capital projects, Ontario businesses must provide an after-tax rate of return on investments that is sufficient to attract financing from international markets. The marginal capital project is one in which the after-tax rate of return on capital is just equal to the cost of raising capital from financial markets. For example, suppose international investors will invest in capital if they receive at the minimum, a 5% rate of return to capital (net of inflation and risk) to cover personal taxes. Further, assume that the METR on capital is equal to 50%. These two assumptions imply that the pre-tax rate of return on marginal capital projects would have to be at least 10% to attract financing from investors.

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<sup>2</sup> Some business purchases will be subject to tax during the transition period until the full credits are provided under the federal GST. Businesses with more than \$10 million in sales will not be able to claim credits for energy (except for use in producing goods for sale), telecommunications (except for the Internet and toll-free numbers), road vehicles weighing less than 3,000 kilograms, food, beverages, or entertainment. After five years, the input tax credits will be phased in until full adoption in 2018. With respect to business capital purchases, most goods will be exempt as of 2010.

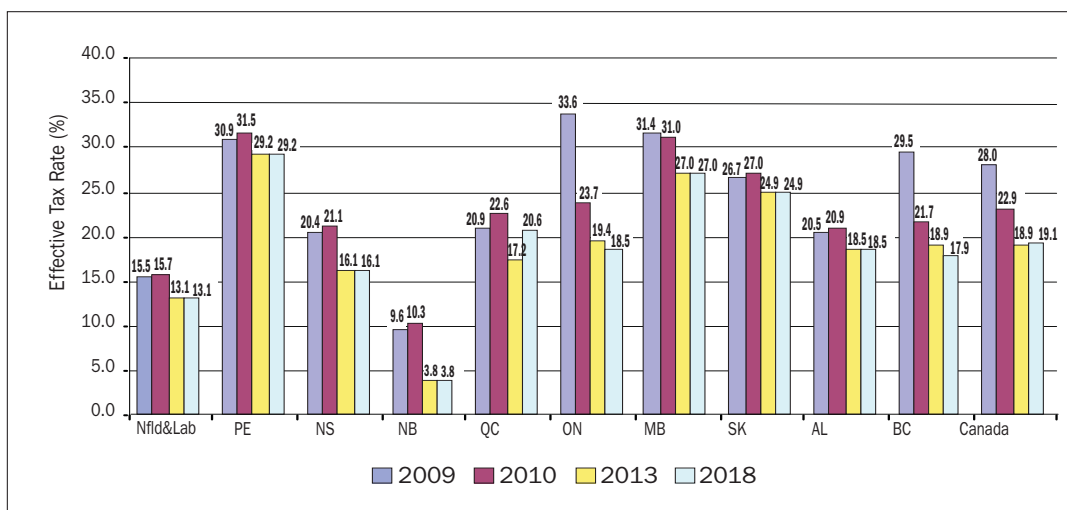
<sup>3</sup> It is now common to refer to the “marginal effective tax rate on capital.” It is sometimes called the “effective tax rate on new investment.” The concept was initially developed in King and Fullerton (1984) and Boadway, Bruce, and Mintz (1984).

The METR on capital is calculated as the annualized value of corporate taxes as a proportion of the pre-tax rate of return on capital for marginal investment projects. Included in the estimates are provisions related to corporate income taxes, capital taxes, and sales taxes on business purchases; property taxes are not included.<sup>4</sup> This analysis models the impact of taxes on all non-financial industrial sectors, except for mining (the latter is affected by different royalty regimes across provinces), and first focuses on medium and large businesses to understand international competitiveness effects.

## THE IMPACT OF ONTARIO'S TAX REFORM ON MARGINAL EFFECTIVE TAX RATES

As of 2009, Ontario has the highest METR on medium and large business capital of all the provinces, at 33.6% (see Figure 1). Although Ontario has committed to eliminating all remaining capital taxes by July 1, 2010, it will still have a relatively high METR on capital, since retail sales taxes significantly affect the cost of machinery and equipment not used for production and processing activities and non-residential structure investments. In addition, Ontario has a relatively high provincial corporate income tax rate.

**Figure 1: Marginal Effective Tax Rate on Capital Investment by Medium and Large Businesses, by Province, 2009, 2010, 2013, and 2018**



As a result of the March 2009 Budget, Ontario's METR on capital in 2010 will fall dramatically from 33.6% to 23.7%, which will put it just above the Canada-wide average of 22.9% and lower than the rates in Saskatchewan, Manitoba, and Prince Edward Island, but still

<sup>4</sup> Property taxes help pay for municipal services that reduce business costs. In principle, only property tax net of benefits should be included in estimates. Although net property taxes ideally should also be included, the variation across municipalities, industries, and special concessions make it impossible to do so even for individual provinces, let alone other countries.

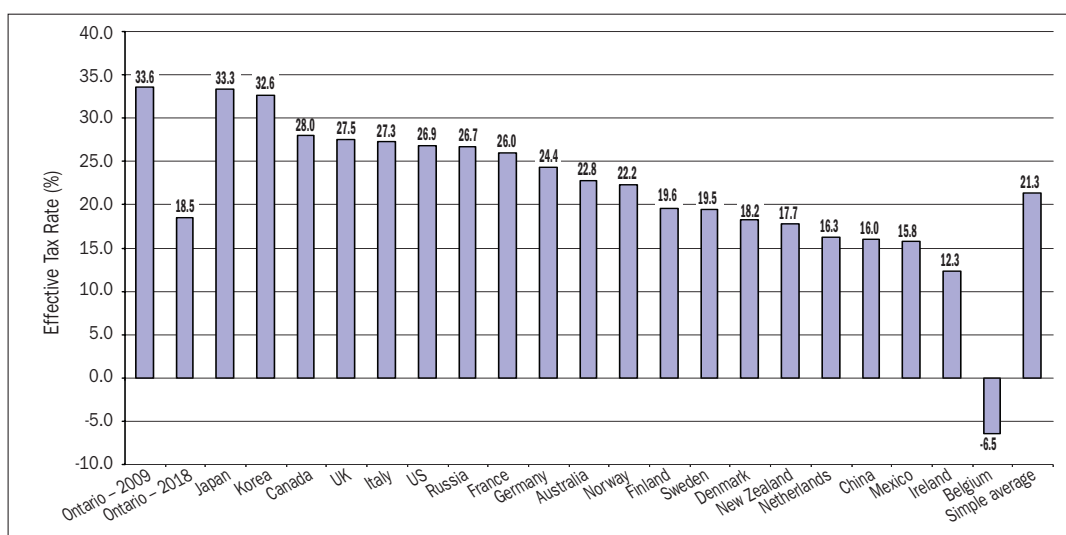
higher than those in Alberta (20.9%), Quebec (22.6%), British Columbia (21.7%), and three Atlantic provinces where the federal Atlantic investment tax credit is available for resource and manufacturing industries (see Figure 1). By 2013, when federal and Ontario corporate tax reductions are fully implemented, Ontario's METR will fall significantly to 19.4%, which will still be slightly above the projected national average of 18.9% and the rates for Alberta (18.5%), British Columbia (18.9%), and Quebec (17.2%).

By 2018, when harmonization is fully adopted in Ontario (and in British Columbia as well), Ontario's METR on capital will reach its lowest value, 18.5%, which will be lower than that in Quebec (20.6%), virtually the same as in Alberta, slightly higher than in British Columbia (17.9%) and less than the national average (19.1%).

The changes occurring in Ontario with respect to its tax competitiveness will be dramatic. Given that Ontario accounts for about one-third of private capital expenditures in Canada, the much lower tax burden on capital in the province will affect not only its competitiveness but also that of Canada as a whole.

The reduction in Ontario's METR by 2018 will certainly allow the province to position itself to attract investments from world capital markets. As Figure 2 shows, in 2009, Ontario had a higher METR than 20 industrialized countries.<sup>5</sup> By 2018, however, Ontario's METR will decline to a level below the existing average METR in the 20 countries (21.3%). While it cannot be expected that none of these countries will change its corporate tax policies over the next ten years, there is no question that the March 2009 Budget will shift Ontario's tax burden on new investment by large and medium businesses to one that could be lower than the world average, over time making Ontario a highly attractive jurisdiction for capital investment.

**Figure 2: Marginal Effective Tax Rate on Capital Investment: Ontario 2009 vs. 2018 in Comparison with Twenty Countries in 2009**



<sup>5</sup> The 2009 METRs are based on existing tax systems, including temporary provisions such as the bonus depreciation for qualifying machinery investments in the United States, available until 2010, and accelerated depreciation for manufacturing equipment in Canada and Ontario.

## HOW WILL THE BUDGET CHANGES AFFECT ONTARIO INDUSTRIES?

The 2009 Ontario Budget, coupled with other planned federal and Ontario tax reductions, will have a positive benefit on all industrial sectors in Ontario (Figure 3). In 2009, the business tax structure was heavily biased against investments in construction (42.2%) and services, especially communications (44.5%), other services (39.8%), and wholesale trade (37.0%). Corporate taxes can hurt the economy most when they are not neutral among industries (see Dahlby 2008). One estimate of the cost of economic distortions arising from non-neutral corporate tax policies in Canada suggests that the tax system imposes an economic cost equal to 37 cents on each dollar of corporate tax collected (Baylor and Beauséjour 2004). Non-neutral taxation also increases compliance and administrative costs.

By 2018, however, Ontario's business tax structure will be not only internationally competitive but also more neutral and fair across industries. The highest-taxed industry in 2018 will be construction, at 20.9%, but this will not be significantly more than manufacturing (18.2%) or transportation and storage (16.3%). The key point that is the tax system will interfere less with business decisions to allocate resources among their most economically productive uses. As a result, Ontario will enjoy a higher rate of productivity growth since the tax system will no longer favour some forms of business activities over others.

**Figure 3: Marginal Effective Tax Rate on Medium and Large Business Capital Investment, Ontario, 2009, 2010, 2013, and 2018, by Industry**

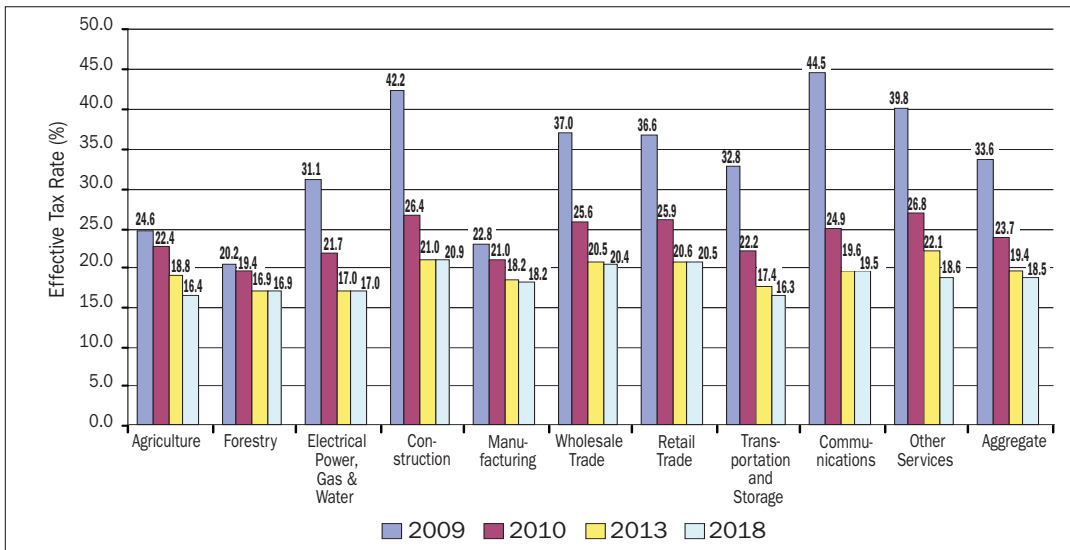
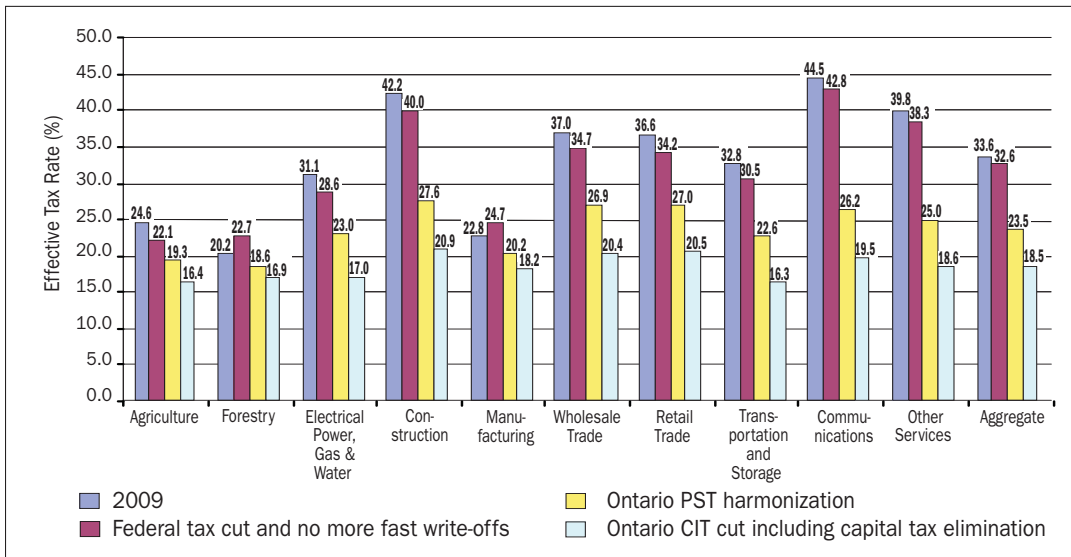


Figure 4 shows the effect of different policy changes from 2009 to 2018 on sectoral investments. From 2009, federal tax policies (corporate rate reductions and the elimination of existing tax incentives) will reduce the overall METR from 33.6% to 32.6%. Forestry and manufacturing industries, however, will face a higher METR due to federal changes. Ontario's sales tax harmonization will have the largest impact on reducing the METR on capital, which will decline from 32.6% to 23.5%. The province's corporate rate reductions and the elimination of the remaining capital tax after July 1, 2010 will cause the effective tax rate to decline a further five percentage points from 23.5% to 18.5%. In total, all industries, including forestry and manufacturing, will face a lower tax burden on investment by 2018.

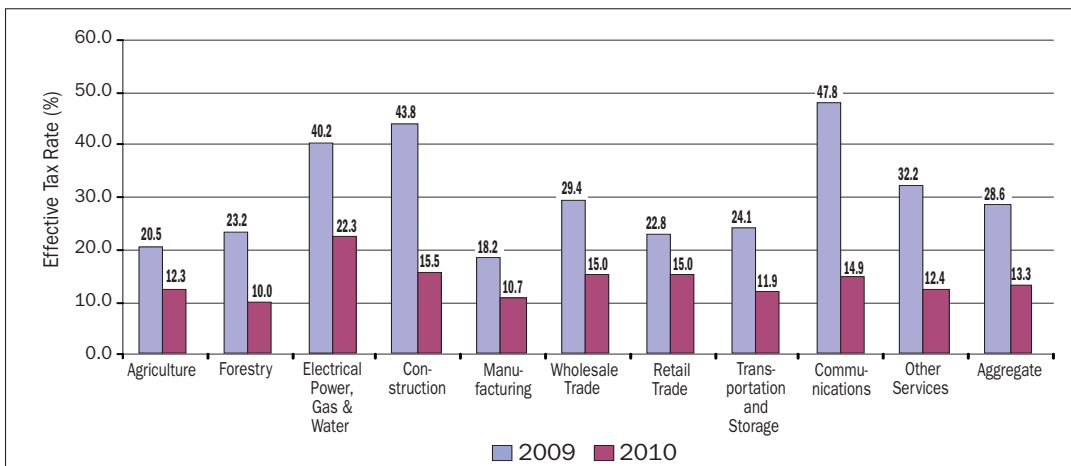
**Figure 4: Effect of Various Tax Changes on the Marginal Effective Tax Rate on Medium and Large Business Capital Investment, Ontario, 2018**



## BENEFITS TO SMALL BUSINESS

Small business investment will also benefit from the 2009 Budget, which gives them a one percentage point reduction in the corporate income tax rate, as well as from sales tax harmonization that removes taxes on capital (and intermediate) inputs. As Figure 5 shows, the METR on small business investment will decline precipitously from 28.6% in 2009 to 13.3% in 2010, especially in construction (43.8% to 15.5%) and communications (47.8% to 14.9%). While the corporate rate reduction will reduce the METR somewhat, the far bigger impact will come from sales tax reform. Small businesses are more intensive users of machinery and equipment in production than are larger businesses, so they will particularly benefit from a reduction of the substantial burden on machinery purchases that the current Ontario retail sales tax imposes.

**Figure 5: Marginal Effective Tax Rate on Small Business Capital Investment by Industry, Ontario, 2009 and 2010**



## ECONOMIC IMPLICATIONS OF GREATER INVESTMENT IN ONTARIO

Clearly, the 2009 Ontario Budget will have a major effect in its reduction of the tax burden on capital investment in the province. Tax reductions will increase the demand for capital by businesses and attract more investment from outside the province.

The reduction of taxes on business intermediate and capital inputs will also have a substantial impact in terms of improving workers' incomes. In a small, open economy such as Ontario, taxes on capital investment do not affect investors' incomes, since capital owners will shift their wealth to other jurisdictions if the after-tax return on capital falls below returns earned elsewhere. Further, taxes on investment impede the adoption of machinery and structures that improve incomes paid to workers who are able to produce more products with the same hours of work. Recent economic studies suggest that taxes on investments by larger companies tend to fall on workers, who either are paid less compensation or face higher domestic prices on consumer goods purchased from their pay cheques.<sup>6</sup> Accordingly, when analyzing the effects of the 2009 Budget, it is important to consider the impact on prices not only of sales tax changes but also of corporate tax changes.<sup>7</sup>

The Ontario government will also benefit from corporate income tax reductions. Several recent studies have shown that businesses are willing to shift profits to jurisdictions with lower corporate income tax rates. With federal and provincial corporate tax rate reductions resulting in a combined corporate rate of 25% (down from 33% in 2009), multi-jurisdictional companies will be much more willing to shift profits into Ontario especially from foreign jurisdictions. Mintz and Smart (2004) find that a one percentage point reduction in a provincial corporate income tax rate would lead to a 2.3% increase in the corporate tax base of multi-jurisdictional companies that allocate income across provinces and shift profits to the province from abroad, and a 4.7% increase if they operate separate subsidiaries in Canada and abroad. Such profit shifting substantially reduces the overall revenue cost of corporate tax rate reductions.

Studies of the sensitivity of capital investment to changes in the tax-inclusive cost of capital (see, for example, Canada 2007) suggest that a 10% increase in the cost of capital causes capital stock to decline by 7%. Studies of the effect of taxes on foreign direct investment are even more striking: De Mooij and Ederveen (2003) suggest that a one percentage point decrease in the effective tax rate on capital will cause foreign direct investment to increase by 3.3%. The 2009 Ontario Budget, coupled with other federal and Ontario corporate tax changes, will reduce the cost of capital by 20.3% by 2018. For manufacturing, however, the cost of capital will decline by only 5.7% since that sector was already receiving preferential treatment before the current reform.

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<sup>6</sup> Recent studies show that immobile labour bears almost the entire burden of corporate taxes (whether through lower negotiated wages or higher domestic prices); see Hassett and Mathur (2006) for the United States; Arulampalam, Devereux, and Maffini (2008) for the United Kingdom; and Aus dem Moore, Kasten, and Schmidt (2009) for Germany.

<sup>7</sup> A recent study on the price effects of harmonization in Ontario by the Toronto-Dominion Bank Financial Group (2009), however, did not include the effect of corporate income and capital tax reductions that would also lead to price reductions.

Reducing the cost of capital has two effects. One is to increase the desired amount of capital relative to labour. The other effect is to reduce overall costs, which leads to a stronger competitive position internationally and enables businesses to increase output, which, in turn, increases the demand for labour.

Results from firm-level studies suggest that the long-run effect of the 2009 Budget tax changes will be to increase capital stock by 14.2% for all Ontario industries and by 4.0% for manufacturing. A large share of the long-run increase in capital stock will be realized between 2013, after the adoption of most federal and Ontario tax reductions, and the end of the coming decade.<sup>8</sup> It is estimated that, in 2010, the Ontario private sector will hold \$330 billion in capital stock, \$51 billion of which will be in manufacturing. The tax changes are expected to increase business capital investment in Ontario by \$47 billion (and manufacturing capital stock by \$2 billion) within ten years.

Using the ratio of employment to capital stock, the effect of tax reductions on the demand for labour can also be roughly estimated. When the cost of capital is reduced, businesses expand production as they become more competitive, allowing them to also hire more workers. Since, in Ontario, the average capital stock per worker between 2003 and 2008 was \$59,600, the effect of reducing the effective tax rate on capital will be to increase net labour employment by an estimated 591,000 in ten years, 103,000 of which will be in manufacturing.<sup>9</sup>

The increase in incomes from greater investment arises from a better allocation of resources in the economy.<sup>10</sup> Within ten years, the annual gain in income — both labour income and investment income, the latter of particular importance to seniors and people approaching retirement — from reducing taxes on capital (and from increasing the number of workers who are subject to tax) will equal \$14.7 billion, or 4.4% of the total labour compensation paid to Ontario workers in 2008. If the increased demand for workers is filled by people who would otherwise have been unemployed in the province, the total annual gain within ten years would be \$29.4 billion, or 8.8% of labour incomes in 2008. Part of the gain in income will come in the form of employment income and part will come in the form of investment income.

Thus, the economic impact of the 2009 Ontario Budget, coupled with federal and Ontario planned tax reductions, will provide sizable benefits in terms of jobs and income gains for Ontario residents over the coming decade.

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<sup>8</sup> It takes time for capital investment to react to changes in the cost of capital. The University of Toronto Focus model estimates that most of the response takes place in seven years, with 62% taking place within four years (information provided by T. Wilson). Note that mining and financial services are not included in the METR calculations in this paper. However, these industries also will benefit from the planned corporate tax reductions.

<sup>9</sup> The estimate is based on a Cobb-Douglas production function, so that some of the job gains will be reduced by the substitution of capital for labour. The estimate is also based on the assumption that wages are fixed, since unemployed workers in Ontario or from other parts of Canada would be willing to supply the new labour that businesses need. If workers are not willing to provide more labour or, alternatively, if they choose not to migrate from other parts of Canada, few new jobs will be created. However, wages will rise sharply, suggesting that workers will be much better off with greater productivity.

<sup>10</sup> This is the economic efficiency impact of a better tax structure, one in which a distorting tax on capital has been reduced. In this case, Ontario incomes will rise if distortions in the tax system are reduced, increasing the demand for unemployed workers. To evaluate the labour market effects, I use an METR on labour in Ontario of 49.6% (see Chen and Mintz 2009) and the 2008 labour compensation per worker of \$49,500.

## CONCLUSION

The 2009 Ontario Budget is a historic watershed in tax policy for the province. Both sales tax harmonization and a competitive corporate income tax rate will confer substantial benefits to Ontarians for generations. The marginal effective tax rate on capital investments in Ontario will be cut almost in half, leading in the long run to a 20% increase (equivalent to \$47 billion) in capital investment, the creation of an estimated 591,000 net new jobs, and an increase in the annual incomes of Ontarians of as much as \$29.4 billion.

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Dr. Jack M. Mintz was appointed the Palmer Chair in Public Policy at the University of Calgary in January 2008.

Widely published in the field of public economics, he was touted in a 2004 UK magazine publication as one of the world's most influential tax experts. He serves as an Associate Editor of *International Tax and Public Finance* and the *Canadian Tax Journal*, and is a research fellow of CESifo, Munich, Germany, and the Centre for Business Taxation Institute, Oxford University. He is a regular contributor to *Canadian Business* and the *National Post*, and has frequently published articles in other print media.

Dr. Mintz presently serves on several boards including Brookfield Asset Management, Imperial Oil Limited, Royal Ontario Museum and the Board of Management, International Institute of Public Finance. He was also appointed by the Federal Minister of Finance to the Economic Advisory Council to advise on economic planning and was recently appointed as research director for the Federal-Provincial Minister's Working Group on Retirement Income Research.

Dr. Mintz held the position of Professor of Business Economics at the Rotman School of Business from 1989-2007 and Department of Economics at Queen's University, Kingston, 1978-89. He was a Visiting Professor, New York University Law School, 2007; President and CEO of the C. D. Howe Institute from 1999-2006; Clifford Clark Visiting Economist at the Department of Finance, Ottawa; Chair of the federal government's Technical Committee on Business Taxation in 1996 and 1997; and Associate Dean (Academic) of the Faculty of Management, University of Toronto, 1993-1995. He was founding Editor-in-Chief of *International Tax and Public Finance*, published by Kluwer Academic Publishers from 1994-2001, and recently chaired the Alberta Financial and Investment Policy Advisory Commission reporting to the Alberta Minister of Finance.

In 2002, Dr. Mintz's book, *Most Favored Nation: A Framework for Smart Economic Policy*, was winner of the Purvis Prize for best book in economic policy and runner-up for Donner Prize for best book in public policy.

Dr. Mintz has consulted widely with the World Bank, the International Monetary Fund, the Organization for Economic Co-operation and Development, the governments of Canada, Alberta, New Brunswick, Ontario, and Saskatchewan, and various businesses and nonprofit organizations.