

**Federal and Provincial Corporate Tax Changes:  
Implications for Incentive Regulation**

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In the context of current hearings before the Ontario Energy Board, Union Gas has asked us to consider the implications of federal and Ontario provincial tax reductions for incentive regulation to be implemented January 1, 2008. This report addresses how such corporate tax changes are incorporated in a price-cap index using a national inflation factor.

In previous testimony before the Ontario Energy Board<sup>1</sup>, we argued that federal corporate tax reductions would be reflected in the GDP price index and therefore automatically result in lower prices under a price-cap index. Ontario tax reductions could arguably be viewed as a factor that would not be included fully in the Canadian GDP price deflator; however, when other provinces were undertaking similar tax reductions, the national GDP price deflator would reflect the net impact of these provincial tax reductions. This position was accepted by the OEB in its decision in RP-2001-0029 of September 20, 2002 [para 5.31].

#### Corporate Tax Changes and Incentive Regulation

The incentive regulation proposal being considered by the Ontario Energy Board using the price cap methodology would provide for the following adjustments to natural gas prices charged by distributors:

$$PCI = I - X + Y + Z$$

PCI = price cap index

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<sup>1</sup> Jack M. Mintz and Thomas A. Wilson, "Perspectives on Corporate Tax Changes in Affecting Performance-Based Regulations," RP-2001-0029.

I = price-adjustments for inflation based on the national GDP final demand implicit price deflator.

X = productivity, input price, average use and stretch factors

Y = pass-through factors including gas and upstream transportation costs and DSM factors

Z = cost factors outside management's control.

Corporate tax changes potentially affect the pricing formula in two ways. Broad tax reductions such as federal corporate tax rate reductions that apply to all industrial sectors and all provinces would be reflected in lower capital costs of all sectors of the economy. As a result of competitive forces, businesses would reduce prices charged on products and services as a result of cost reductions. Thus, broad corporate tax reductions would be reflected in a lower aggregate price index used to adjust rates under the price-cap index. Similarly broad corporate tax increases would be reflected in a higher aggregate price index.

On the other hand, significant corporate tax changes particular to an industry, depending on the overall net effect of changes generally, may not be reflected in price adjustments at the national level. Therefore, such changes should be incorporated in the Z factor as a cost change beyond management's control.

If corporate taxes changes occur only in Ontario, the national price index only partly captures its effects since Ontario's GDP is about forty percent of the Canadian economy.

However, as noted in our previous submission, if other provinces make comparable reductions in their corporate taxes, the national price index should reflect the average provincial tax reduction.

#### Recent Corporate Tax Changes

For years leading up to 2012, the federal government has passed legislation to reduce corporate income tax rates from 22.18 percent (including the federal surtax) to 15 percent. In 2007, it has also introduced legislation to increase capital cost allowances for several assets including computers, non-residential structures, gas distribution pipelines and liquefied natural gas, as well as accelerated depreciation for manufacturing equipment (the latter is available for 2007 and 2008 at this time).

The provinces have announced similar capital cost allowance increases to maintain a tax base similar to the federal government. Several provinces are also reducing corporate income tax rates and capital taxes, including Saskatchewan, Manitoba, Ontario, New Brunswick and Nova Scotia. Quebec has already begun a process of raising its corporate income tax from 8.9 to 11.9 percent by 2011 as it eliminates capital taxes (the net impact is a reduction in effective tax rates on marginal investments). Quebec has also introduced tax credits for manufacturing and forestry companies.

#### Effect on the Price-Cap Index

Given that both federal and provincial governments are generally reducing corporate taxes, their effect is to reduce tax costs for all sectors and provinces. This is shown by

the attached table where we model the impact of all federal and provincial corporate tax changes on marginal effective tax rates on capital faced by non-resource companies in Canada<sup>2</sup>.

The marginal effective tax rate on capital is a summary measure that assesses the annualized value of corporate income taxes, capital taxes and sale taxes on business purchases as a share of their pre-tax rate of return on capital for marginal investment projects. For example, if a business earns a rate of return on capital equal to 20 percent and pays an effective tax rate on capital equal to 50 percent, the after-tax rate of return on capital is 10 percent.

We have calculated the effects of various federal and provincial corporate tax changes on marginal effective tax rates for 2006-7. The results are shown in table 1 below. Once all federal and provincial level corporate tax changes are implemented, Ontario utilities (electrical, gas and water<sup>3</sup>) will face a 4.2 percentage point reduction in their marginal effective tax rate on capital. However this is less than the Canada-wide average reduction of 5.7 percentage points for all non-resource industries (and less than the Ontario average reduction of 5.2 percentage points for non-resource industries).

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<sup>2</sup> Oil, gas and mining companies are not included in the analysis due to lack of new data that we obtain for this analysis from Finance Canada. The corporate tax reductions would also lower their effective tax rates on capital as well.

<sup>3</sup> Finance Canada does not separate these sectors. For the utilities sector, 85 percent of machinery and building assets are in Class 1, which was boosted in rate from 4 to 6 percent in 2007, similar to gas distribution pipelines. We made an adjustment for some other classes, specifically, Class 17 which includes major pipelines and electrical transmission to add them to Class 1 to approximate gas only. The results are not significantly affected.

For existing planned changes from 2007 to 2008, a similar conclusion can be reached that Ontario and industry specific tax changes provides less advantage to utilities than to other sectors.<sup>4</sup>

These results indicate that the effect of an industry specific measure (the increased CCA for natural gas pipelines) is more that offset by the other federal and provincial tax measures introduced in 2007. Thus, we conclude that the national GDP final demand deflator will more than compensate for the effect of corporate tax reductions on natural gas distributors in Ontario.

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<sup>4</sup> Federal and provincial budgets in 2008 will likely result in new corporate tax changes that are not possible to include here.

**Table 1: Changes in Marginal Effective Tax Rates on Capital: Utilities and All Industries from 2006 to 2007 and 2007 to 2008**

	<b>Utilities</b>	<b>All Industries</b>
Ontario 2006	41.5%	42.2%
Ontario 2007	37.3%	37.0%
Ontario Difference: 2006 – 2007	<b>-4.2% point</b>	<b>-5.2% point</b>
Canada 2006	34.0%	36.6%
Canada 2007	29.0%	30.9%
Canada Difference: 2006 – 2007	<b>-5.0% point</b>	<b>-5.7% point</b>
Ontario 2008	35.0%	33.7%
Ontario Difference: 2007 - 2008	<b>-2.3% point</b>	<b>-3.3% point</b>
Canada 2008	26.7%	28.1%
Canada Difference: 2007 - 2008	<b>-2.3% point</b>	<b>-2.8% point</b>

Notes: All Industries include forestry, manufacturing, construction, transportation, communications, utilities, wholesale trade, retail trade and other services. Mining, oil and gas, and financial services are not included.

Tax changes in 2007 that were modeled to derive estimates of marginal effective tax rates on capital include the following:

- Federal and provincial capital cost allowance changes for manufacturing structures in Class 1 (4 to 10 percent), other industry non-residential buildings (class 1 from 4 to 6 percent), computers (from 45 to 55 percent), natural gas distribution pipelines (4 to 6 percent) and liquefied natural gas facilities (4 to 8 percent).
- Temporary accelerated tax depreciation for manufacturing equipment (two-year write-off subject to the half-year convention).
- Reductions in capital tax in New Brunswick, Nova Scotia, Ontario, Quebec and Saskatchewan.
- Reductions in corporate income tax rates in Manitoba and Saskatchewan and increase in corporate income tax rate in Quebec.
- Quebec investment tax credit increases for manufacturing and forestry.
- Saskatchewan reduction in provincial sales tax (and investment tax credit reduction for manufacturing equipment).

For 2008, corporate changes include planned corporate rate and capital tax changes at the federal and provincial levels.