

OFFICE OF
THE PARLIAMENTARY BUDGET OFFICER



BUREAU DU
DIRECTEUR PARLEMENTAIRE DU BUDGET

Interactive Ready Reckoner User Guide

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Key points:

- The Parliamentary Budget Office (PBO) has developed an online tool to estimate the potential revenue impacts to the federal treasury that would arise from adjusting various federal tax rates, credits, and brackets during the 2014 calendar year.
- This report provides a user's guide for the application, which can be found [here](#).

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Overview

The Parliamentary Budget Officer (PBO) frequently receives requests pertaining to the potential revenue impacts arising from adjustments to the federal tax system.

In response to these requests, the PBO has developed an online tool to estimate the potential revenue impacts to the federal treasury that would arise from adjusting various federal tax rates, credits, and brackets during the 2014 calendar year.

The Ready Reckoner tax tool estimates of personal income tax (PIT) changes account for both primary and secondary effects of tax changes on federal revenue. Primary effects include the increase (decrease) in PIT revenue associated with a PIT rate or threshold change.

Secondary effects account for GST/HST revenues generated (lost) from individuals' expenditure of after-tax gains (losses) from a PIT change, as well as changes in taxable income resulting from taxpayer behavioural response. Stimulative or contractionary macroeconomic impacts of tax changes are not accounted for beyond the primary and secondary effects stated above.

When using the application, users can adjust the sliders or arrow keys on the right-hand side of the webpage to specify a hypothetical tax structure. The application displays the increase or decrease in federal revenues derived from the specified changes. The user can then opt to create a print-friendly Portable Document Format (PDF) file of the results.

The estimates displayed within the application are developed using the Statistics Canada Social Policy Simulation Database and Model (SPSD/M v. 21) and PBO calculations.¹

Using the Application

Users access the application either [directly](#), or via the PBO [website](#).² When users load the application, a list of categories containing various tax rates, credits, or brackets is displayed on the right-hand side. As of publication, there are nine separate categories:

- Marginal Tax Rates
- Tax Brackets
- Basic Personal and Spousal Amounts
- Capital Gains Inclusion Rate
- Child Tax Benefit (CCTB)
- GST Credit for a Family of Four
- National Child Benefit (NCB) Supplement
- Corporate Income Taxes
- Goods and Services Tax (GST)

Beside each tax rate, credit or tax-bracket threshold, is a slider displaying the level of the indicator (Figure 1). By default, the slider is set to the current 2014 levels of each indicator. Users can click and drag the slider in either direction to make a change to the tax level. Changes can be made to multiple indicators.

¹ Statistics Canada, [The Social Policy Simulation Database and Model \(SPSD/M\)](#). Accessed October 2014.

² The direct link to the Ready Reckoner tax tool is <http://www.readyreckoner.ca/>.

Figure 1**Ready Reckoner Slide Bars**

Source: Office of the Parliamentary Budget Officer.

As users make changes, a running total of the effect of the total change to federal revenues is displayed (Figure 2). When users have finished altering the indicators, they have the option to summarize the effects in a PDF file. The option is presented at the bottom of the application (Figure 3).

Figure 2**Ready Reckoner Running Total**

Source: Office of the Parliamentary Budget Officer.

Totals are presented in both millions of dollars, and in terms of a percentage change to total federal revenues.

Figure 3**Ready Reckoner PDF Conversion Button**

Source: Office of the Parliamentary Budget Officer.

Tax Rates and Bracket Thresholds

Users can adjust any or all of the four personal tax rates, as well as the corresponding tax-bracket thresholds.

The tax tool default settings reflect the 2014 federal tax rate structure (Figure 4):³

Figure 4**Scale Values**

Tax rate	Lower threshold	Upper threshold
15%	\$0	\$43,953
22%	\$43,954	\$87,907
26%	\$87,908	\$136,270
29%	\$136,271	Unlimited

Source: Office of the Parliamentary Budget Officer.

The rate on federal non-refundable tax credits is based on the lowest federal tax rate (currently 15%). Where users generate a change in the lowest tax rate, tax tool estimates automatically account for an equal and corresponding change to the rate on non-refundable tax credits.

Capital Gains Inclusion Rate

The Capital Gains Inclusion Rate is used to determine taxable capital gains and allowable capital losses. In general this rate is 0.5.⁴

Increasing this rate increases the share of an individual's taxable capital gains.

³ Canada Revenue Agency, [Canadian income tax rates for Individuals – current and previous years](#). Accessed October 2014.

⁴ Canada Revenue Agency, [Definitions for Capital Gains](#). Accessed October 2014.

Canada Child Tax Benefit (CCTB)

The Child Tax Benefit is a needs-tested tax-free monthly payment made to families to assist in the cost of raising children.⁵ This benefit is phased out as adjusted family net income passes a certain threshold.⁶

Increasing the threshold increases the number of families that fully benefit from the CCTB, while increasing the benefit increases the amount provided to families. Note that the Ready Reckoner application provides static estimates. The interaction between alterations to the threshold and the benefit amounts are not included.

GST Credit for a Family of Four

The GST Credit is a series of needs-tested tax-free payments that helps families offset a portion of the GST that they pay.⁷ The credit is calculated as a function of an individual's partners and dependants. There is a higher benefit provided for an initial dependent and a reduced benefit for every subsequent dependent.⁸ This benefit is phased out as income passes a certain threshold.

Increasing either the adult or the child benefit amount increases the total value of the benefit, while increasing the phase out threshold increases the number of families that will receive the full benefit.

National Child Benefit (NCB) Supplement

The National Child Benefit is a joint initiative of the federal, provincial, and

territorial governments.⁹ The NCB is a top-up payment to supplement the CCTB for those families with qualified dependents.¹⁰

Increasing benefit amount increases the amount per dependent paid to individuals through the NCB, while increasing the phase out threshold increases the number of families that will receive the full benefit.

Corporate Income Taxes

The SPSP/M does not provide estimates relating to corporate income taxes, and PBO provides these estimates using internal calculations derived from the fiscal forecast.¹¹ Unlike the estimates for personal taxes, estimates regarding corporate income taxes do not include behavioural effects.

Corporate income taxes apply to corporations, with small Canadian controlled private corporations being eligible for a reduced rate.¹² Increasing either of these two rates increases the tax payable by corporations.

Goods and Services Taxes (GST)

The GST is a federal tax paid on the purchase of most property and services in Canada.¹³ Increasing this tax will increase the amount of taxes paid, and thus federal revenues.

Federal tax revenues are relatively sensitive to changes in the GST rate. Changes in federal tax revenues related to a one

⁵ Canada Revenue Agency, [Canada child tax benefit \(CCTB\)](#). Accessed October 2014.

⁶ Canada Revenue Agency, [CCTB Calculation sheet for July 2014 to June 2015](#). Accessed October 2014.

⁷ Canada Revenue Agency, [Goods and services/ Harmonized sales tax \(GST/HST\) credit](#). Accessed October 2014.

⁸ Canada Revenue Agency, [GST/HST credit - calculation sheet for the July 2014 to June 2015 payments](#). Accessed October 2014.

⁹ National Child Benefit, [How does the NCB work?](#) Accessed October 2014.

¹⁰ Canada Revenue Agency, [CCTB Calculation sheet for July 2014 to June 2015](#). Accessed October 2014.

¹¹ Office of the Parliamentary Budget Office (2014). Economic and Fiscal Outlook Update. Accessed October 2014.

¹² Canada Revenue Agency, [Corporation tax rates](#). Accessed October 2014.

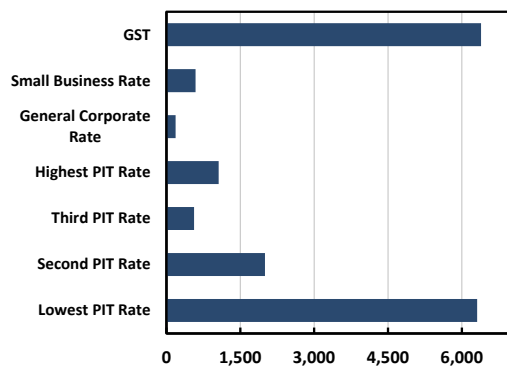
¹³ Canada Revenue Agency, [GST/HST General information](#). Accessed October 2014.

per cent change in selected indicators is depicted in Figure 5.

Figure 5

**Revenue change per 1 per cent change;
selected indicators**

Millions (\$)



Source: Office of the Parliamentary Budget Officer.

Elasticity of Taxable Income

PBO also included an estimate of the elasticity of taxable income (ETI).¹⁴ This parameter accounts for taxpayers' behavioural response to a change in their marginal effective rate.¹⁵

The assumed ETI applied in the Ready Reckoner is $ETI = 0.2$. Elasticity less than 0.2 would imply less responsiveness, generally resulting in larger estimates of the government's net revenue loss (gain) resulting from a tax reduction (increase). Alternatively, elasticity higher than 0.2 would imply greater responsiveness to change and will generally lead to lower net revenue loss (gain) estimates for a tax reduction (increase).

¹⁴ Taxable income, as defined [on line 260 of the CRA T1 form](#). Accessed October 2014.

¹⁵ For more details regarding the PBO's calculation of elasticity, refer to the PBO report [Revenue and Distributional Analysis of Federal Tax Changes: 2005-2013](#).