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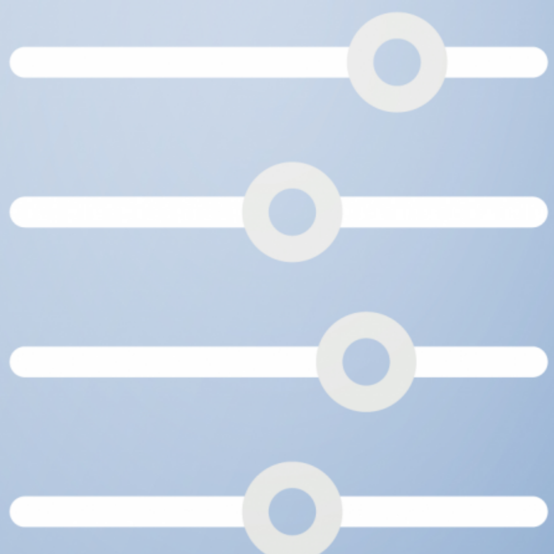
READY RECKONER USER GUIDE



OFFICE OF THE PARLIAMENTARY BUDGET OFFICER
BUREAU DU DIRECTEUR PARLEMENTAIRE DU BUDGET

The Parliamentary Budget Officer (PBO) supports Parliament by providing economic and financial analysis for the purposes of raising the quality of parliamentary debate and promoting greater budget transparency and accountability.

The PBO’s Ready Reckoner is an online tool to estimate the potential impacts on federal budgetary revenues that would arise from adjusting various federal tax rates, credits, and brackets. This is a brief guide to assist users with technical questions.

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The Parliamentary Budget Officer (PBO) frequently receives requests pertaining to the potential revenue impacts arising from adjustments to the federal tax system.[1] In response to these requests, the PBO has developed an online tool to estimate the potential impacts on federal budgetary revenues that would arise from adjusting various federal tax rates, credits, and brackets.[2] Ready Reckoner estimates should be considered stylized rules of thumb.[3]

Reference Year

The 2022 calendar year is the reference year for all estimates.

Models Used

- The estimates for Marginal Tax Rates, Tax Brackets, Basic Personal and Spousal Amounts, Goods and Services Tax (GST), GST Credit for a Family of Four, and the Canada Child Benefit (CCB) were developed using the Statistics Canada Social Policy Simulation Database and Model (SPSD/M v. 28.1).[4]
- The estimate for the Capital Gains Inclusion Rate was developed using both SPSD/M v.28.1 and the PBO's Corporate Tax Model.[5]
- The estimates for both alcohol and tobacco excise duty rates are generated in PBO's Excise Tax Model, which accounts for consumption, prices and historical excise revenues.[6]
- Estimates shown under the Corporate Income Taxes (CIT) section were developed using the PBO's Corporate Tax Model. Simulations were performed on 2017 tax data using 2022 tax parameters and the results were scaled up to 2022 based on our Pre-Budget Outlook projection of CIT revenue.[7] For the General Corporate Rate and the Small Business Rate, SPSD/M v.28.1 was used to adjust the dividend gross-up rate and the federal dividend tax credit rate for personal income taxes (PIT).
- The estimates in the Ready Reckoner are in line with our Pre-Budget Outlook.

Static or Behavioural Estimate

- The estimates for Marginal Tax Rates and Tax Bracket Thresholds include a behavioural effect.
    - The assumed elasticity of taxable income (ETI) is 0.1 for all but the top bracket of taxable income. PBO assumes an

elasticity of 0.38 for the top bracket.[8] To illustrate, this means that a 10 per cent increase in the net of tax rate (that is, 1 minus the marginal tax rate) results in a 1 per cent increase in taxable income for individuals in all but the top bracket, as compared to a 3.8 per cent increase in taxable income for individuals in the top bracket.[9]

- The estimates for both alcohol and tobacco excise duty rates include a behavioural effect.
    - We assume a price-elasticity of -0.25 for cigarettes. That means, for example, a 10 per cent increase in cigarette prices results in a 2.5 per cent reduction in cigarette consumption.
    - We assume a price-elasticity of -1.23 for spirts and -0.28 for wine. That means a 10 per cent increase in spirt and wine prices would lead to a 12.3 per cent and 2.8 per cent reduction in spirit and wine consumption, respectively.
- All other estimates not mentioned above are static estimates: Basic Personal and Spousal Amounts; GST; GST Credit for a Family of Four; CCB; Capital Gains Inclusion Rate; and CIT.[10]

Interaction Effects

- Any tax measures that are linked to the PIT bracket thresholds in legislation will be included when changing the PIT bracket thresholds. For example, the Basic Personal Amount (BPA) phase out rate is calculated using the fourth and fifth PIT bracket thresholds, therefore increasing the bracket thresholds will consequently result in a change in the BPA.
- Consistent with current legislation, when changing the first tax bracket rate, we assume a corresponding rate change for all federal tax credits.
- Increasing the GST rate also increases the GST tax credit rate. Potential revenues from changing the GST rate are net of the GST tax credit and include the federal portion of HST where applicable.
- The Canada Child Benefit is non-taxable and is thus presented as a net fiscal cost.
- The section on Capital Gains Inclusion Rate includes an interaction between the personal and corporate tax systems. When, for example, the capital gains inclusion rate for corporations increases, the capital gains inclusion rate for individuals increases by the same

amount. The revenue impact includes the change in federal revenue from both effects combined.[11]

- We assume that user changes to the General Corporate Rate will also involve changes to the eligible dividend gross-up rate and the federal eligible dividend tax credit rate for individuals. Similarly, user changes to the Small Business Rate will involve changes to the other than eligible dividend gross-up rate and the federal other than eligible dividend tax credit rate for individuals. These assumptions are based on the desire to maintain PIT-CIT tax integration. Thus, the revenue estimate for a change to the general rate or the small business rate includes revenue impacts from adjusting these two individual rates as well.

Notes

1. Information on the current federal tax structure is available on the Canada Revenue Agency's website. See: https://www.canada.ca/en/revenue-agency/services/tax/rates.html.
2. The direct link to the Ready Reckoner tax tool is http://www.readyreckoner.ca/.
3. For each estimate included in the Ready Reckoner, PBO standardizes the directional impact so that it is linear.
4. PBO's calculations are based on Statistics Canada's Social Policy Simulation Database and Model (SPSD/M). The assumptions and calculations underlying the simulation results were prepared by PBO and the responsibility for the use and interpretation of these data is entirely that of the authors. PBO activated a modification in SPSD/M that turns off the calculation of commodity taxes, except for the calculation related to the GST rate.
5. Office of the Parliamentary Budget Officer, Corporate Tax Model. Accessed August 2021.
6. The rates of excise duty on alcoholic products vary depending on the product, alcohol content, production volume of the brewer, and/or location of the brewer. As a result, PBO constructed an effective rate of excise duty for each of four alcoholic product categories: spirits, beer, spirit coolers, and wine. For more details on excise duty rates, visit Canada Revenue Agency, Excise Duty Rates. Accessed July 2021.
7. Office of the Parliamentary Budget Officer, Pre-Budget Outlook.
8. For more details regarding the PBO's calculation of elasticity (ETI), refer to the PBO report The Fiscal and Distributional Impact of Changes to the Federal Personal Income Tax Regime.
9. A 10 per cent increase in the first bracket rate (currently 15 per cent) would be an increase of 1.5 percentage points (to 16.5 per cent overall. The calculation is as follows: 15 per cent * 0.1 = 1.5 percentage points.
10. PBO did not include a behavioural response to changes in the BPA. PBO anticipates the behavioural response to be non-zero, but immaterial.
11. The tax system contains many linkages between the personal and corporate income tax systems to ensure that an individual is indifferent between earning income through a corporation or directly. This concept is generally referred to as "tax integration".