



Canada Revenue
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TAX GAP

METHODOLOGICAL ANNEX



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1. Introduction

Although it may appear to be a relatively simple concept, tax gap estimation is complex and requires nuanced analysis depending on the unique circumstances of each tax administration. For example, tax gap can be evaluated from a number of perspectives such as domestic vs. international, types of tax, and forms of non-compliance, each of which may require a unique methodology.¹ In addition, tax gap estimates often require the analysis of historical data, particularly when examining compliance and collection activities which can take multiple years to complete. For example, comprehensive audits of large corporations can take about eight years to finish. As a result, tax gap estimates often have a time lag between the tax years being examined and the publication year. In certain instances, a projection method is applied for more timely estimates. However, it is important to balance timeliness with other considerations such as the quality of tax gap estimates.

All tax gap estimates are subject to varying degrees of uncertainty based on multiple factors, including the type of gap being estimated, the limitations of a particular methodology, and the quality of available data. To navigate these challenges, the CRA allocates dedicated resources to examine the different components of Canada's federal tax gap, including updating methodologies and estimates on an ongoing basis.

This methodological annex contains technical details related to the methods used to estimate different components of the overall federal tax gap. In previous publications, methodologies related to specific tax gap components were embedded within the annex of each corresponding report. However, given that this year's report includes all the tax gap components published to date, a separate methodological annex was developed. In the overall tax gap report, two main forms of non-compliance are captured for personal income tax (PIT), corporation income tax (CIT), goods and services tax/harmonized sales tax (GST/HST), and excise revenue²:

- **Reporting non-compliance** – When taxpayers fail to provide complete or accurate information on their tax returns by under-reporting income or claiming deductions or credits to which they are not entitled³
- **Payment non-compliance** – When assessed taxes are not fully paid on time by taxpayers for a particular tax year

¹ For most tax gap components, Canada's tax gap analysis does not include illegal activities given the uncertainties around the amount of taxes that could actually be assessed and collected on these activities.

² Illegal production and smuggling of cigarettes by unlicensed manufacturers is regarded as the main source of tax loss in relation to federal excise revenue. Cannabis was legalized in Canada in late 2018, and a federal fuel charge was implemented in 2019. Therefore, the excise tax gap related to these components are outside the scope of this publication. However, these components will be examined in a future tax gap publication.

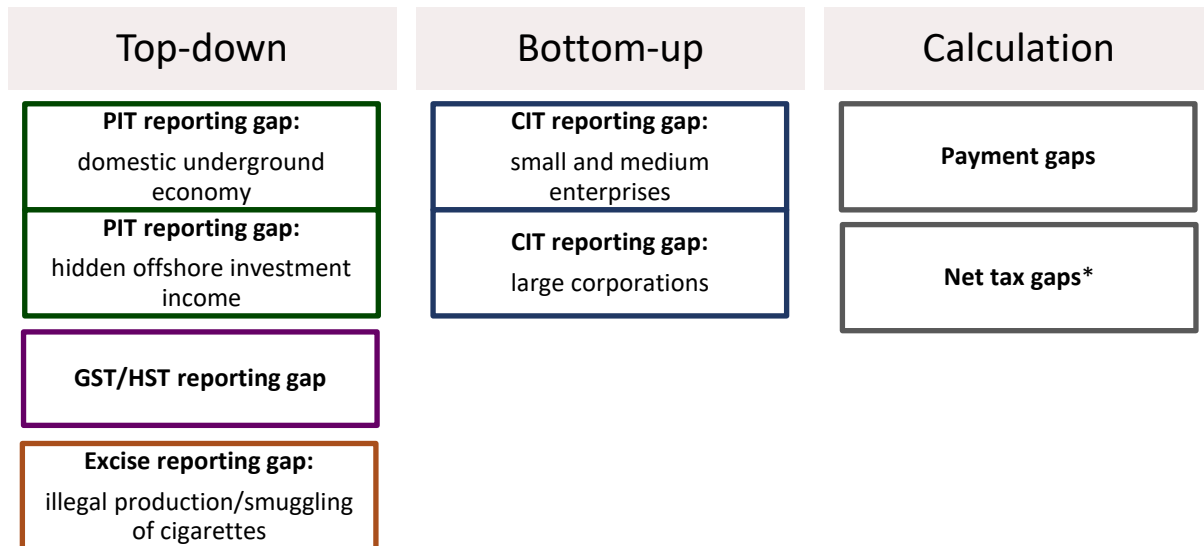
³ The registration/non-filing gap, when individuals or corporations fail to register or file their tax return when they are required to do so, was not explicitly estimated in this report due to data limitations. Nevertheless, registration/filing non-compliance is implicitly embedded in certain estimates including the PIT underground economy and the excise reporting gap.

Reporting non-compliance is generally difficult to measure since it involves income, assets, and economic activities that are deliberately hidden, or errors that can be difficult to detect. In contrast, the payment gap can be calculated directly using CRA accounting records – taxpayers have either paid or have not paid their taxes owing.

In general, there are two main approaches to estimating the reporting gap. A **top-down approach** uses independent external data, such as macro-economic data, to estimate the theoretical value of tax which is then compared with the actual tax amount reported. This approach is often used to estimate gaps related to indirect taxes such as GST/HST and excise revenue. In contrast, a **bottom-up approach** uses internal tax administration data, such as audit data, to extrapolate the level of non-compliance to the rest of the population. This approach is often used to estimate gaps related to direct taxes such as corporation income tax.

Currently, four tax gap components related to reporting non-compliance are estimated using a top-down approach and two components are estimated using a bottom-up approach. The payment gap is calculated using CRA accounting records. In addition, the overall tax gap report examines the impact of CRA’s compliance and collection activities that identify and reduce the tax gap for each tax type, referred to as the net tax gap. This reduction is calculated using CRA’s compliance and collection data, including additional federal tax adjustments from audits and additional tax revenue collected. It is important to note that all tax gap estimates are based on a “tax year” and in 2018 constant dollars to account for inflation. Therefore, figures in this year’s tax gap report are not directly comparable with other public figures published on Canada.ca.

Figure 1: Overview of tax gap methodologies



* Projection of potential federal tax adjustments was used for corporations since audits for tax years 2014 to 2018 have not all been finalized.

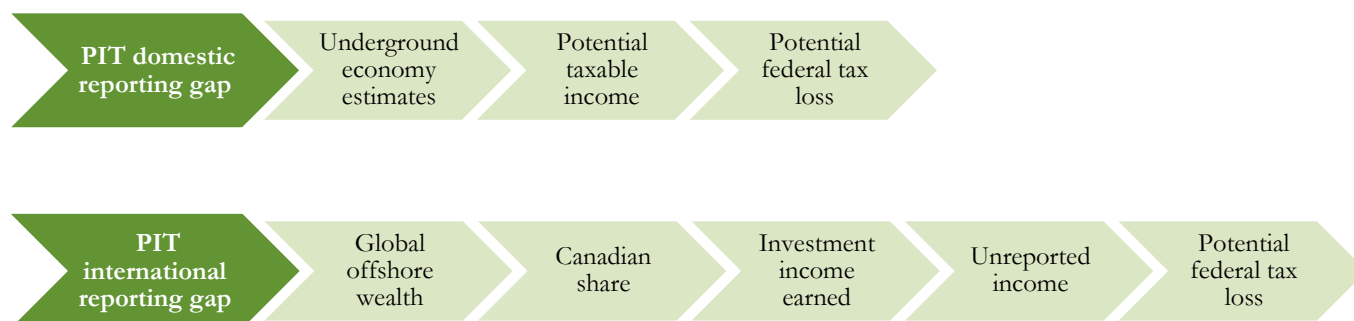
This methodological annex is organized as follows. Sections 2 to 5 present **reporting gap methodologies** related to PIT, CIT, GST/HST, and excise revenue. Sections 6 and 7 present the methodologies related to **the payment gaps** and **the net tax gaps** for all tax types. Each of these sections highlights tax gap estimates, scope of analysis, key data sources, estimation and projection methods, key sources of uncertainty, and public references. Section 8 provides concluding remarks.

2. Personal income tax (PIT) reporting gap methodology

| Tax gap component | General approach | Key data source | Method |
|-----------------------------------|------------------|--|---|
| Domestic underground economy | Top-down | Statistics Canada's underground economy estimates | Apply marginal effective tax rates to estimated taxable income in the underground economy |
| Hidden offshore investment income | Top-down | Global financial statistics and international banking data | Based on the work of key academics |

This section outlines the methodologies used to estimate PIT reporting non-compliance related to the domestic underground economy and hidden offshore investment income. For the domestic component, Statistics Canada's underground economy estimates were used to approximate hidden sources of taxable income and the corresponding federal tax revenue loss. For the international component, global financial statistics and international banking data were used to estimate potential federal tax loss from hidden offshore investment income. The methodologies for these tax gap components remained largely consistent with the previous tax gap reports published in 2017 and 2018. For both components, the estimates were updated using the latest available data at the time of writing this report, where applicable.

An overview of the PIT reporting gap methodologies is illustrated below. Additional details on these methodologies can be found in sections 2.1 and 2.2.



2.1 Domestic underground economy

Table 1: PIT reporting gap from the domestic underground economy for tax years 2014 to 2018

| | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|-------|-------|-------|-------|-------|
| In constant 2018 dollars (\$ billions) | \$7.0 | \$7.3 | \$7.4 | \$7.9 | \$7.7 |
| % of federal PIT revenue* | 4.9% | 4.8% | 5.0% | 5.1% | 4.7% |

* Public Accounts Canada was used to calculate percentage of federal tax revenue.

Scope:

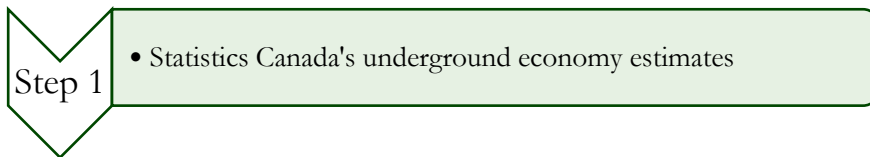
- Potential federal PIT revenue loss from individuals not reporting income earned through the underground economy for tax years 2014 to 2018.
- The underground economy is defined as economic activity or transactions in goods or services that are partially or entirely hidden from the government in order to evade paying taxes or other government reporting obligations.

Key data sources:

- Statistics Canada: underground economy estimates (2018).
- Finance Canada, marginal effective tax rates.

Estimation and projection method:

The methodology for the domestic component of the PIT reporting gap is consistent with the one developed in CRA's 2017 tax gap report. Tax gap estimates were updated using the latest data from Statistics Canada and Finance Canada.



The domestic component of the PIT reporting gap is commonly related to underground economic activities that are hidden from public authorities. This can include individuals working under the table or when net income is understated by under-reporting income or over-reporting costs. The starting point for this tax gap component is Statistics Canada's underground economy estimates. These estimates aim to identify missing or unreported productive activity that is not captured in the official Gross Domestic Product (GDP) statistics. These estimates are first prepared by Statistics Canada on an expenditure-by-sector approach to arrive at a GDP estimate related to the underground economy. Subsequently, an income-based GDP related to the underground economy is developed by benchmarking the expenditure-based estimates to factors such as compensation to

employees, gross operating surplus, and gross mixed income. These income-based estimates provide a general sense of the potential hidden income in Canada’s underground economy.

Step 2

- Potential taxable income in the underground economy

Statistics Canada’s income-based GDP related to the underground economy is not perfectly aligned to the concept of hidden taxable income for individuals. As a result, it was necessary to take certain steps to transform the estimates to approximate the hidden taxable income base related to individuals. For example, this transformation requires removing elements related to corporations (e.g., gross operating surplus) and leaving only the components relevant for individual taxpayers.

The potential taxable income in the underground economy for individual taxpayers are estimated based on two groups of individuals:

- Individuals that are not self-employed (compensation to employees)
- Self-employed individuals (mixed income)

The table below shows the breakdown of key underground economic components for these groups of individuals.⁴

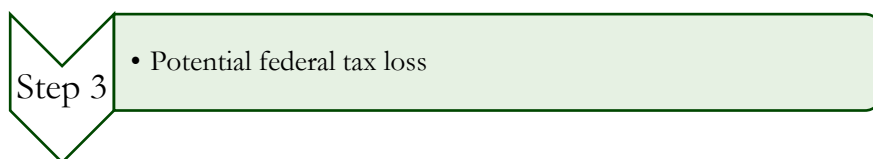
Table 2: Estimated taxable income (\$billions) in the underground economy by components and share of total, 2014 to 2018*

| | 2014 | 2015 | 2016 | 2017 | 2018 |
|--|-----------------|-----------------|-----------------|-----------------|-----------------|
| Individuals (compensation to employees) | | | | | |
| Construction | \$6.5 (20%) | \$6.8 (21%) | \$7.0 (20%) | \$7.8 (22%) | \$8.0 (23%) |
| Tips | \$6.4 (12%) | \$6.6 (12%) | \$6.7 (12%) | \$6.6 (12%) | \$6.7 (12%) |
| Trade-related activities | \$2.5 (8%) | \$2.8 (8%) | \$2.8 (8%) | \$2.8 (8%) | \$2.8 (8%) |
| Other underground economic activities | \$12.3 (37%) | \$12.5 (37%) | \$12.9 (37%) | \$13.0 (36%) | \$12.6 (36%) |
| Sub-total | \$27.7 (77%) | \$28.7 (78%) | \$29.3 (77%) | \$30.1 (77%) | \$30.0 (78%) |
| Self-employment (mixed income) | | | | | |
| Construction | \$2.1 (5%) | \$2.1 (5%) | \$2.2 (5%) | \$2.4 (6%) | \$2.4 (6%) |

⁴ Other underground economy activities include maintenance and repair of vehicles, child care services, and services related to household maintenance (other than renovation).

| | 2014 | 2015 | 2016 | 2017 | 2018 |
|--|---------------|---------------|---------------|---------------|---------------|
| Rent/rooming and boarding | \$0.6 | \$0.7 | \$0.7 | \$0.7 | \$0.7 |
| | (2%) | (2%) | (2%) | (2%) | (2%) |
| Other underground economic activities | \$5.1 | \$5.1 | \$5.2 | \$5.4 | \$5.0 |
| | (15%) | (15%) | (15%) | (15%) | (14%) |
| Sub-total | \$7.8 | \$7.9 | \$8.1 | \$8.5 | \$8.1 |
| | (23%) | (22%) | (23%) | (23%) | (22%) |
| Total | \$35.6 | \$36.6 | \$37.5 | \$38.6 | \$38.1 |
| | (100%) | (100%) | (100%) | (100%) | (100%) |

* Totals may not add due to rounding. All amounts are in 2018 constant dollars. Source: Statistics Canada's Underground Economy estimates



To determine the federal taxes that would have been assessed if the income earned in the underground economy had been reported, the federal marginal effective tax rates of individuals in similar circumstances were applied. Therefore, each of the seven underground economy components (outlined in Table 2) had their own marginal effective tax rates for each tax year. They were then applied to the estimated taxable income in these sectors. These rates were calculated by Finance Canada using a micro-simulation model to account for statutory income tax rates, deductions and credits, and, when applicable, the clawbacks of federal income-tested benefits.

Key sources of uncertainty:

- This top-down method approximates the marginal effective tax rates of individuals participating in the underground economy. Therefore, the tax gap estimates may fluctuate based on these assumed marginal effective tax rates.
- It was not possible to consider hidden income that is earned by activities outside the scope of the Statistics Canada's estimates, such as unreported income from capital gains on the sale of assets.
- The PIT reporting gap implicitly captures non-compliance related to non-filers who would have a tax liability if they had filed their tax returns. Due to the top-down nature of this methodology, it was not possible to separate the non-filing gap from the tax gap estimate.

Public references:

- Tax assured and tax gap for the federal personal income tax system (2017). Canada Revenue Agency.
- The Daily — Residential construction remained the top contributor to underground activity in 2018 (<https://www150.statcan.gc.ca/n1/daily-quotidien/201023/dq201023a-eng.htm?HPA=1>).

2.2 Hidden offshore investment income

Table 3: PIT reporting gap from offshore investment income for tax years 2014 to 2018

| | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|----------------|----------------|----------------|----------------|----------------|
| In constant 2018 dollars (\$ billions) | \$1.1 to \$2.9 | \$1.3 to \$3.5 | \$1.5 to \$3.6 | \$1.5 to \$4.2 | \$1.0 to \$3.0 |
| % of federal PIT revenue* | 0.7% to 2.0% | 0.8% to 2.3% | 1.0% to 2.4% | 0.9% to 2.7% | 0.6% to 1.9% |

* Public Accounts Canada was used to calculate percentage of federal tax revenue.

Scope:

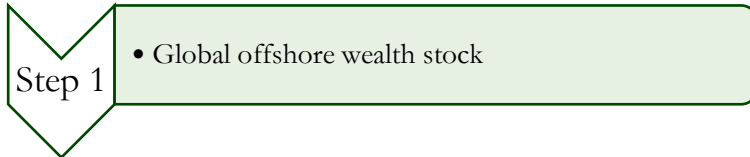
- Potential federal PIT revenue loss from hidden offshore investment income for tax years 2014 to 2018.

Key data sources:

- Global financial statistics:
 - Total Portfolio Investments, coordinated portfolio investment survey
 - Boston Consulting Group, global wealth 2014-2018
 - Bank of Canada exchange rate
 - World Bank, GDP data
- International banking data:
 - Federal Reserve Economic Data
 - World Bank deposit interest rate
 - Dividends and capital gains data

Estimation and projection method:

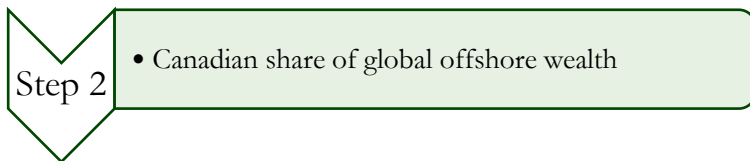
The methodology of the international component of the PTT reporting gap is consistent with the one developed in CRA's 2018 tax gap report with minor adjustments where certain data for more recent years were not available.



In order to estimate unreported offshore investment income for a given country, the first step is to estimate the global offshore wealth held by individuals.⁵ In order to estimate the tax gap for 2014 to 2018, it was necessary to estimate offshore wealth for 2013 to 2017 since offshore investment income would be earned the year after. It is estimated that the global offshore wealth ranged between \$7.9 trillion to \$8.2 trillion in 2013 up to between \$8.5 trillion to \$9.5 trillion in 2017.⁶

The global offshore wealth was allocated into asset types based on key academic literature.⁷

- **Bank deposits:** 25%
- **Debt securities:** 22.5%
- **Asset securities:** 52.5%



The next step is to estimate the portion of the global offshore wealth that belongs to individuals in Canada during 2013 to 2017. As shown in the table below, three sources were used to create a minimum/maximum estimate for Canada's share of global offshore wealth.

- **Zucman (2014, 2015):** assumes that global hidden wealth is held in proportion to offshore bank deposits, similar to the work by Alstadsaeter et al. (2017).
- **Pellegrini et al. (2016):** uses the Canadian share of recorded portfolio investments to divide the total global offshore wealth estimate.

⁵ Global offshore wealth was estimated using growth rate data from the Boston Consulting Group and offshore wealth estimate from Vellutini et al (2019). These data sources were necessary to estimate the global offshore wealth for tax years beyond 2014.

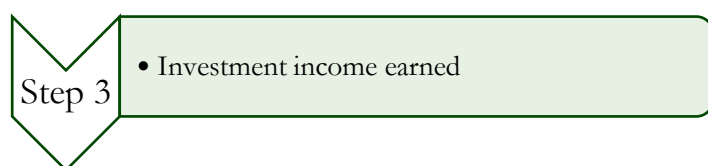
⁶ These amounts were converted from US dollar amounts and they are in nominal terms.

⁷ Vellutini et al. (2019), Zucman (2017), Alstadsaeter et al. (2018), Zucman (2013, 2015).

- **Pellegrini et al. (2016) – GDP approach:** uses countries’ shares of global GDP to divide the total global offshore wealth estimate.

Table 4: Canadian global offshore wealth share, 2013 to 2017

| | 2013 | 2014 | 2015 | 2016 | 2017 |
|---|---------------------|---------------------|---------------------|---------------------|---------------------|
| Zucman (2014, 2015) | 1.2% | 1.2% | 1.2% | 1.2% | 1.2% |
| Pellegrini et al. (2016) | 2.2% | 2.4% | 2.4% | 2.5% | 2.7% |
| Pellegrini et al. (2016) – GDP approach | 2.4% | 2.3% | 2.1% | 2.0% | 2.0% |
| Min/Max | 1.2% to 2.4% | 1.2% to 2.4% | 1.2% to 2.4% | 1.2% to 2.5% | 1.2% to 2.7% |



Individuals in Canada are usually required to pay tax on investment income generated by their wealth, but not on their stock of wealth. The investment income earned by Canadian residents is estimated by applying a rate of return on the estimated amount of hidden wealth held by individuals in Canada.

Rates of return are estimated separately for each asset type.

- **Bank accounts** are assumed to achieve a 1% annual rate of return throughout the period under study.⁸
- **Debt securities** are assumed to achieve an annual rate of return ranging from 4.5% in 2014 to 4.4% in 2018 based on an average of corporate bond yield from the Federal Reserve Economic Data.
- **Dividend** payouts are assumed to represent between 2.0% and 2.2% of the previous year-end asset security value over the studied period, as supported by S&P 500 Index data.
- **Realized capital gains** are estimated to range between 8.0% in 2014 and 6.2% for 2018 based on the assumptions used in the 2018 tax gap report.⁹

⁸ This is consistent with the observations of Pellegrini et al. (2016) and the deposit interest rates of the World Bank Development Indicators.

⁹ Capital gains generated by individuals’ investments are particularly difficult to estimate because only realized capital gains are taxable. Therefore, it is assumed that 10% of the asset securities held were originally invested in each year for the previous 10 years, the return on these investments is in line with the S&P 500 Index from the time invested, and

Step 4 • Unreported offshore investment income

Of the offshore investment income earned, it is assumed that only a portion of it is reported to the CRA. Due to the absence of reliable data, there are many possible estimates for unreported offshore investment income.¹⁰

- **Bank account under-reporting rates:**
 - 80% (based on Zucman 2015 and Pellegrini et al. 2016)
 - 75% (based on Alstadsaeter et al. 2018 and Zucman 2017)
 - 60% (based on Pellegrini et al. 2016)
- **Debt and asset securities under-reporting rates:**
 - 80% (based on Zucman 2015 and Pellegrini et al. 2016)
 - 75% (based on Alstadsaeter et al. 2018 and Zucman 2017)
 - 90% (based on Pellegrini et al. 2016)

In the absence of reliable under-reporting rates related to offshore investment income, all of these rates were incorporated into the analysis (see Table 5). The sensitivity analysis presented below illustrates the impact of the assumptions used in this methodology.

Step 5 • Potential federal tax loss

It is assumed that the international component of the PIT reporting gap stems primarily from individuals with high levels of income. Therefore, the highest federal statutory marginal tax rate was used for each tax year, ranging from 29% in 2014-2015 to 33% starting in 2016. The tax rate was adjusted for each asset type. For instance, the highest marginal rate is applicable to foreign interest and dividend income. However, for capital gains, the 50% inclusion rate is taken into account which reduces the effective rate to 14.5% for tax years 2014-2015 and to 16.5% starting in 2016.

Using the parameters detailed in the previous steps, tax loss is first estimated by asset type and then added together to obtain the total federal tax loss due to unreported offshore investment income. The table below shows each step of the calculation for tax year 2018.

20% of asset security holdings are sold at the end of the year. These assumptions are consistent with those that have been used by the Office of the Parliamentary Budget Officer: The Tax-Free Savings Account. 2015.

¹⁰ These rates are assumed to be constant throughout the period under analysis. Due to data limitations, it was not possible to account for possible changes in non-compliance behaviour.

Table 5: Parameters and steps for estimating offshore investment income tax loss (2018*)

| | Bank accounts | Debt securities | Asset securities |
|---|--------------------|--------------------|--|
| Hidden global offshore wealth stock (billions) (2017) | \$1,965 to \$2,220 | \$1,769 to \$1,998 | \$4,127 to \$4,664 |
| % Canadian (2017) | 1.2% to 2.7% | 1.2% to 2.7% | 1.2% to 2.7% |
| % Return | 1.0% | 4.4% | 2.0% (dividends) 6.2% (capital gains) |
| % Unreported | 60% to 80% | 75% to 90% | 75% to 90% |
| Unreported income (billions) | \$0.1 to \$0.5 | \$0.7 to \$2.3 | \$3.3 to \$10.2 |
| Effective tax rate | 33% | 33% | 33% (dividends) 16.5% (capital gains) |
| Estimated tax loss (billions) | \$0.1 to \$0.2 | \$0.3 to \$0.8 | \$0.7 to \$2.1 |
| Total estimated tax loss (billions) | \$1.0 to \$3.0 | | |

Totals may not add due to rounding. Annual exchange rates were applied to certain US dollar amounts for hidden global offshore wealth stock.

* Unless specified otherwise.

Key sources of uncertainty:

- While all tax gap estimates have some degree of uncertainty, the international component of the PIT reporting gap is particularly difficult to estimate since it relies on many assumptions that are difficult to verify. For example, the allocation of hidden wealth between each asset type can vary from year to year, Canadian offshore investments could have higher or lower yields, and the actual underreporting rate could have fluctuated based on external factors such as CRA's compliance efforts. Moving forward, the CRA will explore other approaches related to international non-compliance to refine this tax gap component.
- Given these sources of uncertainty, a sensitivity analysis was conducted to assess the sensitivity of the tax gap estimate based on the assumptions chosen. The table below shows the impact of a 10% increase in each parameter, holding all other parameters constant when applicable. For example, a 10% increase in realized capital gains would increase the tax gap by 4.2%. This analysis demonstrates that changing the assumptions can have a material impact on this tax gap estimate.

Table 6: Sensitivity analysis with a 10% increase in parameters for tax year 2018

| Parameter | Percentage change in estimated tax loss |
|------------------------------------|---|
| Offshore wealth composition | |
| Bank deposit | -2.6% |
| Asset securities | +1.0% |
| Debts securities | -0.4% |
| Canadian proportion | +10.0% |
| Rate of return | |
| Bank accounts | +0.6% |
| Debt securities | +2.5% |
| Dividends | +2.7% |
| Realized capital gains | +4.2% |
| Reporting rate | -9.1% |

Public references:

- Alstadsæter, Annette, Niels Johannesen, and Gabriel Zucman, Who Owns the Wealth in Tax Havens? Macro Evidence and Implications for Global Inequality, *Journal of Public Economics* 162, pages 89-100, 2018 [[Appendix & data webpage](#)]
- Alstadsæter, Annette, Niels Johannesen, and Gabriel Zucman, Tax Evasion and Inequality, *American Economic Review*, Vol. 109, no. 6, June 2019 (pp. 2073-2103)
- Canada Revenue Agency, International Tax Gap and Compliance Results for the Federal Personal Income Tax System, 2018
- Pellegrini, Valeria, Alessandra Sanelli, and Enrico Tosti, What do external statistics tell us about undeclared assets held abroad and tax evasion?, *Bank of Italy Occasional Paper No. 367*, November 2016, URL: https://www.bancaditalia.it/pubblicazioni/qef/2016-0367/QEF_367.pdf
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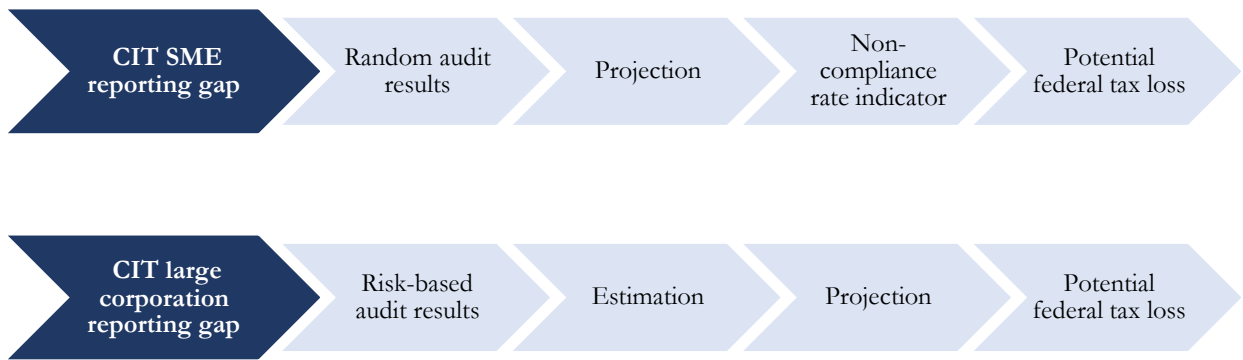
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- Zucman, Gabriel, *The Hidden Wealth of Nations: The Scourge of Tax Havens*, University of Chicago Press, 2015
- Zucman, Gabriel, *La richesse cachée des nations : Enquête sur les paradis fiscaux*, Le Seuil, 2017. [[Data webpage](#)]

3. Corporation income tax (CIT) reporting gap methodology

| Tax gap component | General approach | Key data source | Method |
|---|------------------|--------------------------|--|
| Small and medium-sized enterprises (SMEs) reporting gap | Bottom-up | Random audit results | Extrapolation with projection to more recent tax years |
| Large corporations reporting gap | Bottom-up | Risk-based audit results | Extreme value method and clustering |

This section outlines the methodologies used to estimate CIT reporting non-compliance related to incorporated SMEs and large corporations. For the SME population, results from random audits conducted during fiscal years 2013-14 to 2014-15 were used to estimate the reporting gap. For large corporations, two different methods were used to extrapolate risk-based audit results while minimizing selection bias. The methodologies for these tax gap components remained largely consistent with the previous tax gap report on corporate non-compliance, published in 2019. The estimates were updated using the latest CRA data with adjustments to better project the estimate for tax years beyond 2014.

An overview of the CIT reporting gap methodologies is illustrated below. Additional details on these methodologies can be found in sections 3.1 and 3.2.



3.1 Small and medium enterprises

Table 7: CIT reporting gap from SMEs for tax years 2014 to 2018

| | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|----------------|----------------|----------------|----------------|----------------|
| In constant 2018 dollars (\$ billions) | \$2.6 to \$3.4 | \$2.8 to \$3.6 | \$2.9 to \$3.7 | \$3.1 to \$4.0 | \$3.3 to \$4.2 |
| % of federal CIT revenue* | 6.3% to 8.1% | 6.6% to 8.4% | 6.8% to 8.6% | 6.4% to 8.2% | 6.6% to 8.3% |

* Public Accounts Canada was used to calculate percentage of federal tax revenue.

Scope:

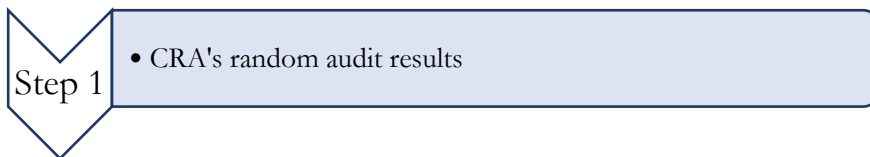
- Potential federal CIT revenue loss from SMEs due to reporting non-compliance for tax years 2014 to 2018.
- SMEs are defined as corporations with less than or equal to \$20 million in total gross revenues regardless of the industry sector or with less than or equal to \$50 million in total gross revenues in the following industry sectors: Manufacturing; Transportation and Allied Services; Wholesale Trade; and Retail and Services.

Key data sources:

- CRA 2013-15 stratified random audit results
- CRA assessment data based on T2 Corporation Income Tax Returns as of May 2021
- Statistics Canada’s underground economy estimates

Estimation and projection method:

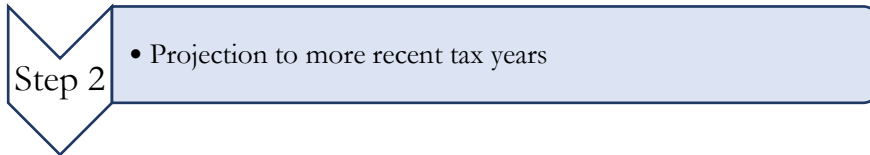
The methodology for the CIT SME reporting gap is consistent with the one developed in CRA’s 2019 report with minor adjustments to account for changes in non-compliance behaviour.



The CRA’s most recent random audits of incorporated SMEs took place during fiscal years 2013-14 and 2014-15 and examined SMEs that filed a tax return for tax year 2011. Using a stratified random sampling methodology, the CRA completed over 4,500 full-scope audits of SMEs operating in 21 industry sectors.

Among audited taxpayers, about 37.6% of SMEs were assessed with additional federal tax liability by an average amount between 1,690 to \$2,160 for tax year 2011. Extrapolating the results to the

SME population as a whole, the reporting tax gap is estimated to be between \$2.5 billion to \$3.1 billion for tax year 2011.¹¹

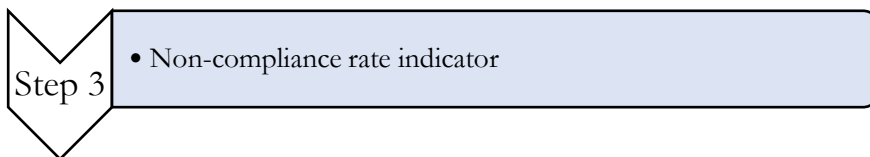


In order to account for changes in the SME tax base due to economic growth and changes in certain tax laws, compound annual growth rates of the total federal tax payable at initial assessment were applied to project the tax gap estimate for tax years 2014 to 2018. The table below shows the total federal tax payable at initial assessment and its growth rate for tax years 2014 to 2018.

Table 8: Total federal tax payable at initial assessment for tax years 2014 to 2018

| | 2014 | 2015 | 2016 | 2017 | 2018 |
|--|--------|--------|--------|--------|--------|
| Total federal tax payable at initial assessment (\$ billions) | \$23.7 | \$25.3 | \$26.6 | \$29.4 | \$31.4 |
| Compound annual growth rate (R1)* | 8.2% | 7.8% | 7.3% | 7.8% | 7.6% |

* 2011 tax year was used as the baseline given that random audit results were for that year.



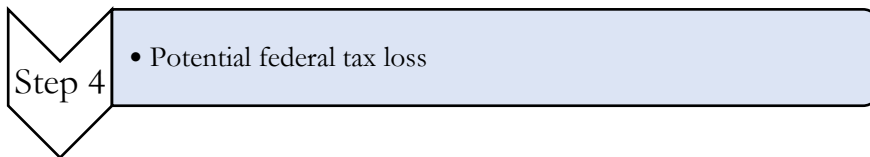
In the previous corporate tax gap report (2019), it was assumed that non-compliance rates remained relatively stable during 2011 to 2014. However, given that this year’s report projects the SME reporting gap for tax years beyond 2014, the methodology was refined to approximate potential changes in non-compliance rates. This non-compliance rate indicator was developed by looking at the ratio between the estimated growth of corporate income in the underground economy and the actual growth of reported taxable income. A positive growth rate of this ratio would suggest that the corporate income from the underground economy grew at a faster rate than reported taxable income. In contrast, a negative growth rate would suggest that corporate income from the underground economy grew at a slower pace. The table below shows changes in the non-compliance rate indicator for tax years 2014 to 2018.

¹¹ These figures are in constant 2018 dollars. The margin of error for this estimate is reported at the 95% confidence level.

Table 9: Compound annual growth rate of the non-compliance rate indicator

| | 2014 | 2015 | 2016 | 2017 | 2018 |
|--|-------|-------|-------|-------|-------|
| Non-compliance rate indicator (R2)* | -3.5% | -2.2% | -1.8% | -1.9% | -1.5% |

* 2011 tax year was used as the baseline given that random audit results were for that year.



Using the two growth rates above, the SME reporting gap is calculated using the following formula for each tax year, i :

$$SME\ reporting\ gap_i = 2011\ SME\ reporting\ gap * (1 + R1_i)^{Tax\ year_i - 2011} * (1 + R2_i)^{Tax\ year_i - 2011}$$

Key sources of uncertainty:

- The SME reporting gap is based on the most recent random audit results from fiscal years 2013-14 and 2014-15 which examined SMEs for tax year 2011. Therefore, it was necessary to project the tax gap estimate to more recent years using certain indicators. The growth rate of total federal tax payable is based on CRA’s internal data and looks at a similar population to those examined in the random audit. However, it was not possible to match the exact population due to data limitations.
- The non-compliance indicator that was used to approximate potential changes in non-compliance rates are based on a combination of Statistics Canada’s underground economy estimates and CRA’s assessing data. This indicator relies on the assumption that large corporations generally do not engage in the underground economy.
- It is important to note that auditors may not always identify all sources of non-compliance when conducting audits due to various reasons. In some cases, this could lead to an underestimation of the tax gap. While certain countries have attempted to develop or incorporate "uplift factors" to account for undetected non-compliance, these remain imprecise and subjective. Additional research would be required to estimate an uplift factor for undetected non-compliance that could be applied in the Canadian context.

Public references:

- Tax gap and compliance results for the federal corporate income tax system (2019). Canada Revenue Agency.

3.2 Large corporations

Table 10: CIT reporting gap from large corporations for tax years 2014 to 2018

| | 2014 | 2015 | 2016 | 2017 | 2018 |
|--|----------------|----------------|----------------|----------------|-----------------|
| In constant 2018 dollars (\$ billion) | \$7.2 to \$9.0 | \$6.7 to \$8.3 | \$7.4 to \$9.2 | \$7.9 to \$9.8 | \$9.0 to \$11.3 |
| % of federal CIT revenue* | 17% to 22% | 16% to 19% | 17% to 21% | 16% to 20% | 18% to 22% |

* Public Accounts Canada was used to calculate percentage of federal tax revenue.

Scope:

- Potential federal CIT revenue loss from large corporations due to reporting non-compliance for tax years 2014 to 2018.¹²
- Corporations may be able to reduce their audit adjustments by using accumulated tax credits (e.g., the Scientific Research and Experimental Development Credit) and distort tax gap levels for a given tax year.¹³ Therefore, effects of these credits were removed from the analysis.
- Large corporations are defined as:
 - Corporations with total gross revenues from \$20 million to \$50 million that are not in the following industry sectors: Manufacturing; Transportation and Allied Services; Wholesale Trade; and Retail and Services
 - Corporations with total gross revenues of \$50 million or more regardless of the industry sector.

Key data sources:

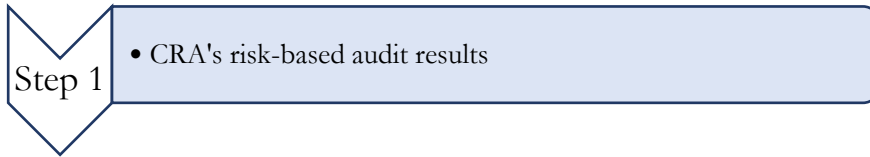
- CRA assessing data based on T2 Corporation Income Tax Returns as of May 2021
- CRA Business Number Registration System as of May 2021
- CRA risk-based audit data for large corporations completed for relevant tax years

¹² Tax gap includes domestic and international non-compliance but does not include non-compliance from non-resident corporations and corporations exempt from taxes such as registered charities. Federal tax assessed is net of the dividend refund (line 784 of the T2 Corporation Income Tax Return) and the federal capital gains refund (line 788 of the T2 Corporation Tax Return).

¹³ Certain tax credits, including the Scientific Research and Experimental Development Credit, can be carried forward to reduce future tax liability or carried back to reduce past tax liability for a limited time period.

Estimation and projection methods:

The methodologies for the CIT large corporation reporting gap are largely consistent with the ones developed in the CRA's 2019 report with minor adjustments to improve the quality of estimates.



Unlike SMEs, the CRA relies exclusively on risk-based audits for the large corporate population due to the relatively small number of large corporations. Through these audits, the CRA closely examines relevant books and records of corporations to make sure they fulfill all of their tax obligations. While risk-based audits make efficient use of audit resources, non-compliance identified through these audits cannot be directly extrapolated to the population due to selection bias. Therefore, two statistical methodologies were applied to minimize selection bias and estimate the federal tax gap for large corporations. Due to the limitations of each method, one can underestimate the tax gap (extreme value methodology) while the other can overestimate it (cluster analysis). Therefore, both methods were used to create a range representing lower- and upper-bound estimates.



Extreme value methodology

The extreme value methodology in the context of estimating tax non-compliance has been employed by the US Internal Revenue Service to develop its large corporate tax gap estimates and it has been refined by key academics.¹⁴

The extreme value methodology relies on risk-based audit results to derive a tax gap estimate based on an assumed power law distribution. Under a power law distribution, the amount of federal tax adjustments from audit is inversely related to a corporation's non-compliance ranking in the population. This implies that the magnitude of non-compliance will tend to drop off exponentially as one moves down the ranks of corporations from the most to the least non-compliant.¹⁵

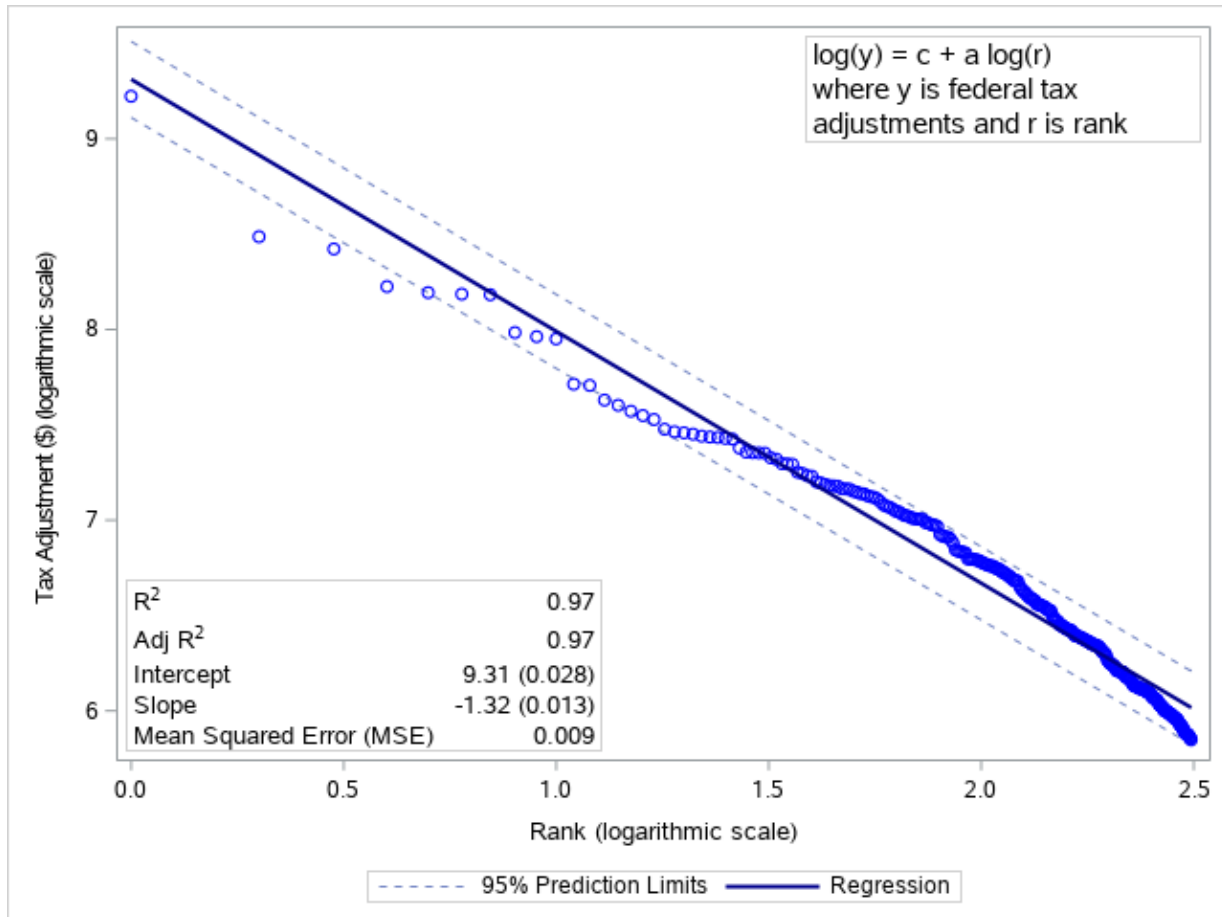
The tax gap was estimated by applying ordinary least squares (OLS) regression based on the relationship between the logarithm of corporation non-compliance rank and the logarithm of audit adjustments. Figure 2 is an illustration of the OLS regression used to estimate the large corporate reporting gap. The main assumption for this methodology is that the taxpayers with highest

¹⁴ Bloomquist, Hamilton, and Pope (2014).

¹⁵ Specifically, non-compliance will decline exponentially with the logarithm of the non-compliance ranking.

adjustments have already been audited by the CRA. However, since risk-based audit selection may not always identify the most non-compliant corporations, this method can underestimate the tax gap. Therefore, the tax gap estimate from this method was used as a lower-bound estimate.

Figure 2: OLS regression to estimate the large corporate tax gap



Cluster analysis

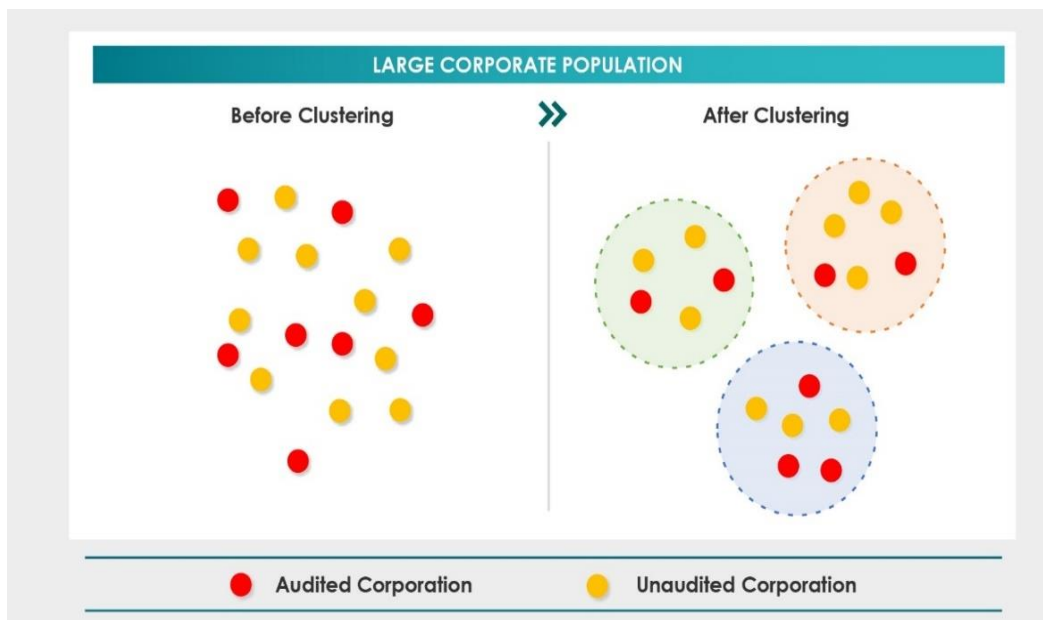
In addition to the extreme value methodology, a clustering technique was used to determine whether large corporations could be organized into relatively distinct clusters on the basis of key characteristics and to estimate the potential level of non-compliance within each cluster.

To improve the cluster analysis from the 2019 tax gap report, the methodology was refined to increase the efficiency of the clustering algorithm. In particular, this year’s algorithm combined k-means (for numerical characteristics) and k-modes (for categorical characteristics) clustering. It also automatically selected the optimal number of clusters based on cluster distances. In addition, an iterative approach was taken to improve the accuracy of the estimate by estimating the gap multiple times and taking the average.

Once the clusters were formed, the potential tax gap for each cluster was estimated based on the ratio between the federal tax adjustments found by audit and the reported revenues of audited

corporations at initial assessment. This ratio was then used to estimate the potential federal tax adjustment for each cluster. The main assumption is that the ratio between federal tax adjustments and reported revenues for audited corporations is likely to be the same for unaudited corporations within the same cluster.¹⁶ The overall federal tax gap is estimated by aggregating the projected amounts of non-compliance across all clusters. It is important to note that cluster analysis can overstate the tax gap since it does not account for the fact that large corporations selected for audit may still be more likely to have a higher level of non-compliance compared to those that are not audited within the same cluster. Therefore, the tax gap estimate from this method was used as an upper-bound estimate for large corporations.

Box 1: An illustrative example of cluster analysis



The left-hand side illustrates the entire large corporate population, some that have been subject to a risk-based audit (red dots) and others that have not been audited (yellow dots). A clustering algorithm is used to group the corporations into clusters (green, orange, blue circles) based on key characteristics including, among others, corporation type, industry sector, financial ratios, the presence of foreign affiliates, and the level of international transactions. Once they are grouped together, federal tax adjustments from already audited corporations (red dots) are extrapolated to the entire cluster to estimate the potential federal tax adjustment, including unaudited corporations (yellow dots).

¹⁶ Some outliers were removed from calculating the ratio in order to further reduce selection bias.

Step 3

- Projection

Comprehensive risk-based audits can take multiple years to complete, particularly for large corporations, due to the complex and often global nature of their business activities. Therefore, it was necessary to analyze historical audit data from earlier tax years to estimate and project the tax gap for tax years 2014 to 2018. Moreover, to make audit adjustments comparable over years, they included audit reassessments up to eight years after each tax year. Applying a similar method used by the US, the tax gap estimates were projected to tax years 2014 to 2018.

The projection method is based on estimating the voluntary reporting rate (VRR) and assuming that this rate remained relatively consistent from year to year. The VRR was calculated from reported federal taxes and the estimated tax gap. The average VRR from 2010 and 2011 tax years¹⁷ was used, which was 72%.

$$VRR = \left(\frac{\text{federal tax}_{2010}}{\text{tax gap}_{2010} + \text{federal tax}_{2010}} + \frac{\text{federal tax}_{2011}}{\text{tax gap}_{2011} + \text{federal tax}_{2011}} \right) / 2$$

Step 4

- Potential federal tax loss

Using this rate, the CIT reporting gap from large corporations was projected for tax years 2014 to 2018 through the following formula for each tax year, i :

$$\text{Tax gap}_i = \text{federal tax}_i \frac{1 - VRR}{VRR}$$

Key sources of uncertainty:

- Since this tax gap estimate relies on risk-based audit results, there are factors that can both overstate or understate the tax gap. For example, there may still be selection bias within the estimate which can overstate the tax gap. In addition, auditors may not always identify all sources of non-compliance when conducting audits due to various reasons. This could lead to an underestimation of the tax gap. While certain countries have attempted to develop or incorporate "uplift factors" to account for undetected non-compliance, these remain imprecise and subjective. Additional research would be required to estimate an uplift factor for undetected non-compliance that could be applied in the Canadian context.

¹⁷ Tax years prior to 2010 were not considered to avoid the confounding effects of the 2008-2009 recession.

- Due to data limitations, the projection method assumes that the voluntary reporting rate remains relatively stable.

Public references:

- Tax gap and compliance results for the federal corporate income tax system (2019). Canada Revenue Agency.
- Internal Revenue Service. "Federal tax compliance research: tax gap estimates for tax years 2008-2010." Publication 1415. Washington, D.C., USA. 2016. Retrieved from: <https://www.irs.gov/pub/newsroom/tax%20gap%20estimates%20for%202008%20through%202010.pdf>
- Bloomquist, K.M., S. Hamilton, and J. Pope. "Estimating corporation income tax under-reporting using extreme values from operational audit data." *Fiscal Studies*, 35, 4 pp. 401-419 2014.
- Fiscalis 2020 Tax Gap Project Group. "The Concept of Tax Gaps Report II: Corporate Income Tax Gap Estimation Methodologies." European Commission Directorate-General Taxation and Customs Union, Brussels. 2018. Retrieved from: https://ec.europa.eu/taxation_customs/system/files/2018-07/tgpg-report-on-cit-gap-methodology_en.pdf
- SAS Documentation on KCLUS Procedure. Retrieved from: https://documentation.sas.com/doc/en/vdmlcdc/1.0/casml/viyaml_kclus_overview01.htm

4. Goods and services tax/harmonized sales tax (GST/HST) reporting gap methodology

| Tax gap component | General approach | Key data source | Method |
|-----------------------|------------------|---|--|
| GST/HST reporting gap | Top-down | Data from Finance Canada, Statistics Canada, Canada Border Services Agency, and the CRA | Difference between total theoretical tax liability and actual assessed tax |

This section outlines the methodology used to estimate the federal GST/HST reporting gap. The methodology for this tax gap component remained largely consistent with the previous tax gap report on GST/HST non-compliance published in 2016. The estimates were updated using the latest data from Finance Canada, Statistics Canada, CBSA, and the CRA.

An overview of the GST/HST reporting gap methodology is illustrated below. Additional details on this methodology can be found in the following pages.



Table 11: GST/HST reporting gap for tax years 2014 to 2018

| | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|-------|-------|-------|-------|-------|
| In constant 2018 dollars (\$ billions) | \$4.1 | \$4.8 | \$3.9 | \$3.6 | \$4.3 |
| % of overall GST/HST revenue* | 10.2% | 11.7% | 9.1% | 8.2% | 9.5% |

* Public Accounts Canada was used to calculate percentage of federal tax revenue.

Scope:

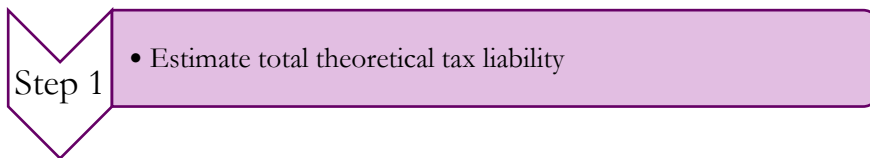
- Estimating the potential federal GST/HST revenue loss from reporting non-compliance for 2014 to 2018
- The reporting GST/HST gap includes reporting non-compliance related to GST and the federal portion of HST

Key data sources:

- **Finance Canada**
 - Data from the HST Revenue Allocation Framework
- **Statistics Canada**
 - Provincial Economic Accounts and Provincial Supply and Use Tables
 - Underground economy estimates
- **Canada Revenue Agency**
 - GST Returns data
 - GST Audit data
- **Canada Border Services Agency**
 - Declared GST/HST revenue

Estimation and projection method:

The difference between this theoretical liability and the federal portion of the assessed GST/HST represents the federal GST/HST reporting gap. Amounts for assessed GST/HST are based on data for declared GST/HST revenue from the CRA and the CBSA for tax years 2014 to 2018.



The first step is to estimate the total theoretical federal GST/HST liability. It is estimated by determining the tax base that would result from full compliance using a number of economic and administrative data sources (as noted below) and then multiplying the base by the federal GST/HST rate.

The tax base is comprised of household expenditures, residential construction, and the expenditures of entities that produce GST/HST exempt services¹⁸, including public sector bodies, listed financial institutions, and certain other businesses.

- Household expenditures are derived from personal expenditure data contained in Statistics Canada's Provincial Economic Accounts and Provincial Supply and Use Tables. The household expenditure base is estimated by applying an interpretation of the legal taxability to net expenditures by households on goods and services taking into consideration whether commodities are fully taxable, zero-rated, or exempt.
- Investment in residential construction comprises new housing construction, alterations and improvements and transfer costs such as real estate commissions and legal fees. The tax

¹⁸ Businesses or other organizations that produce GST/HST exempt services are not eligible to claim input tax credits on purchases made towards the provision of these services. Therefore, purchases of such inputs form part of the tax base for GST/HST.

base for residential construction is calculated from an estimate of the GST/HST on housing provided by Statistics Canada. This estimate accounts for the value of land (which is subject to GST/HST) and records the GST/HST on new construction at the time of ownership or possession (which is when GST/HST is levied) rather than at the time of construction (as it is recorded in the Provincial Economic Account).

- The tax base related to public sector bodies captures taxable expenditures from municipalities, universities, schools, hospitals, colleges, charities and qualified non-profit organizations. The estimation of this tax base is based on administrative GST/HST rebate data from the CRA and yields more robust results than estimating this base using statistical/survey data.
- The tax base of listed financial institutions stems from taxable expenditures by chartered banks, insurance corporations, credit unions and trust companies related to their provision of exempt services. This tax base is estimated using data from the CRA and Statistics Canada.
- The tax base of other businesses producing exempt services captures other exempt producers including physicians, dentists and private education. Due to the confidential nature of the data, this base is estimated by Statistics Canada based on the Supply and Use Tables.

Moreover, since economic activities taking place in the underground economy are not fully captured in the National and Provincial Economic Accounts, each of the estimated tax base components are adjusted to account for the underground economy. The adjustment factors are derived from Statistics Canada's estimates of the underground economy. For example, the consumer expenditure tax base is grossed up by a factor ranging from 2.8 per cent to 3.1 per cent depending on the year, which is derived by dividing the estimated GDP in the underground economy by reported GDP related to household final consumption expenditure.



Assessed taxes are based on data for declared federal-provincial GST/HST revenue from the CRA and CBSA. Certain adjustments are required to account for revenues foregone due to intentional tax policy design that would otherwise count towards assessed taxes (and are included in the theoretical tax liability). These adjustments include:

- **Point-of-sale rebates adjustment:** Provinces participating in the HST offer rebates of the provincial portion of the HST (“Provincial Value Added Tax” or “PVAT”) to consumers at the point of sale for certain items, such as books, children's clothing and footwear, diapers and heating oil. Since these items are part of the tax base, an adjustment based on Statistics Canada data and surveys is added to revenues to account for the forgone PVAT due to point-of-sale rebates.

- **Small supplier threshold adjustment:** The small supplier threshold rule allows businesses with annual gross taxable sales under \$30,000 to not register for GST/HST. A small supplier that chooses not to register for GST/HST does not collect GST/HST on goods and services sold and is ineligible for input tax credits. Because the activities of small suppliers are included in the estimated theoretical tax base as if they were taxable, a corresponding notional amount is added to the revenues.
- **Section 87 of the Indian Act adjustment:** Purchases by status Indians on or delivered by the vendor onto a reserve are eligible for a GST/HST exemption under Section 87 of the Indian Act, and are therefore not subject to GST/HST. This adjustment is a notional estimate of the GST/HST that would be assessed on purchases in the absence of the section 87 exemption.
- **Grandparented housing adjustment:** An adjustment is made for PVAT relieved on grandparented housing purchases that arise from provinces joining the HST or increasing their rates. This adjustment captures PVAT forgone due to sale agreements of new housing being signed before a tax change is announced for which the purchaser takes ownership or possession after the tax change is implemented. Information on these amounts is collected by the CRA.
- **Transborder flights adjustment:** Canada-U.S. transborder flights are subject to the GST but not to the provincial portion of the HST. An estimate of the associated forgone PVAT based on Statistics Canada data is added to revenues.

Once the federal-provincial GST/HST revenues have been adjusted by the above elements, the federal portion of the revenues is determined using the HST Revenue Allocation Framework, which determines the revenues shares of the federal government and HST provinces using economic data from Statistics Canada and administrative data from the CRA and the CBSA.

Step 3

- Difference between the theoretical tax liability and assessed tax

The federal GST/HST reporting gap is estimated by difference between the theoretical tax liability that would result from full compliance and assessed GST/HST:

$$GST/HST\ Gap = Theoretical\ tax\ liability - Assessed\ tax$$

Key sources of uncertainty:

- As with any tax gap estimated using a top-down approach, the GST/HST reporting gap estimates are highly dependent on third-party statistical aggregate data that can be subject to revisions from time-to-time.
- Like other tax gap components, GST/HST reporting gap estimates may vary from year-to-year, some of which may be due to factors other than non-compliance. For GST/HST in

particular, part of the volatility in tax gap estimates reflects the normal operation of the tax system.

Public references:

Estimating and analyzing the tax gap related to the goods and services tax/harmonized sales tax (2016). Canada Revenue Agency.

5. Excise reporting gap methodology

| Tax gap component | General approach | Key data source | Method |
|--------------------------------------|------------------|--|--------------|
| Federal cigarette duty reporting gap | Top-down | Data from Statistics Canada, Health Canada, the CRA, and the Canada Border Services Agency | Gap analysis |

This section outlines the methodology used to estimate the excise reporting gap related to the illegal production/smuggling of cigarettes.¹⁹ The methodology for this tax gap component remained largely consistent with the previous tax gap report on excise non-compliance published in 2020. A separate econometric model could not be replicated for tax years beyond 2014 due to data limitations. The estimates were updated using the latest data from Statistics Canada, Health Canada, the CRA, and the CBSA.

An overview of the excise reporting gap methodology is illustrated below. Additional details on this methodology can be found in the following pages.

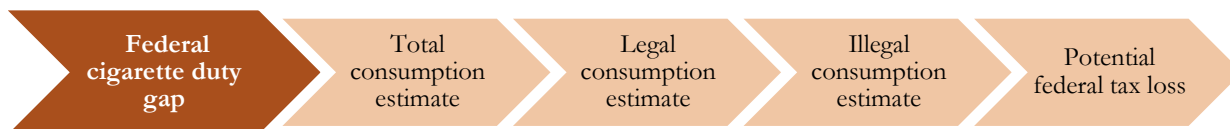


Table 12: Federal cigarette duty reporting gap for tax years 2014 to 2018

| | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|-------|-------|-------|-------|-------|
| In constant 2018 dollars (\$ billions) | \$0.5 | \$0.5 | \$0.4 | \$0.3 | \$0.4 |
| % of overall federal excise duties, taxes and other specific levies revenue* | 4.2% | 4.1% | 3.2% | 2.9% | 3.3% |

* Public Accounts Canada was used to calculate percentage of federal tax revenue.

Scope:

- Estimating the potential federal excise duty revenue loss from illegal production/smuggling of cigarettes.

¹⁹ This includes any roll or tubular construction intended for smoking, other than a cigar or a tobacco stick.

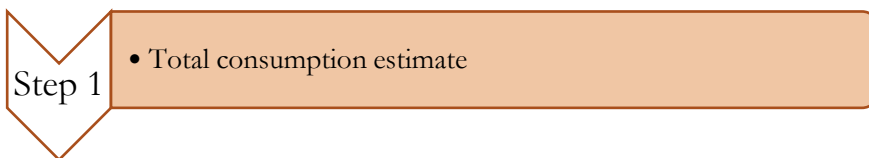
- Includes cigarettes and roll-your-own (RYO) cigarettes. Cannabis is outside the scope of the report since it was introduced in October 2018. In addition, e-cigarettes or vaping products that do not contain solid tobacco particles are not currently subject to excise duties and are not covered in this report.

Key data sources:

- **Statistics Canada**
 - Canadian Community Health Survey (CCHS)
- **Canada Revenue Agency**
 - Administrative data on legal domestic tobacco product production
 - Excise duty rates
- **Canada Border Services Agency**
 - Administrative data on legal commercial tobacco product importations
- **Health Canada**
 - Wholesale sales data: cigarettes and fine-cut sales in Canada

Estimation and projection method:

The federal excise reporting gap is measured by estimating the potential consumption of illegal cigarettes by comparing total consumption levels with legal consumption levels. The excise duty rate is then applied to the assumed level of illegal consumption to estimate the potential federal tax loss.



Survey results from Statistics Canada related to smoking prevalence rates (percentage of smokers in Canada) and smoking intensity (average number of cigarettes smoked per day by daily and occasional smokers) were used.

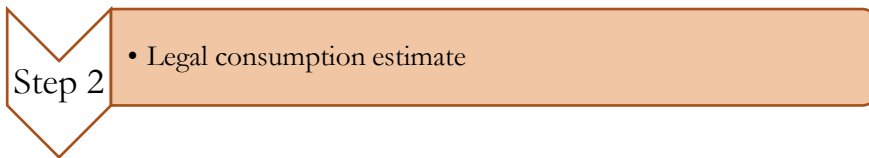
Total reported consumption is calculated separately for daily and occasional smokers. It is the product of the number of smokers and the consumption intensity. The number of smokers is calculated as the product of the population aged 15 and over and the smoking prevalence rate. The consumption intensity is calculated as the product of the average number of cigarettes smoked per day and the number of smoking days.

An uplift factor is then applied to correct for under-reporting related to smoking prevalence.²⁰ This report uses the 35% under-reporting rate calculated by Guindon et al. (2017), corresponding to an uplift factor of 1.54. This adjustment is consistent with the United Kingdom’s approach to estimating their cigarette excise duty gap. The uplift factor is calculated as:

$$\text{Uplift factor} = \frac{1}{1 - \text{underreporting rate}}$$

The total consumption is calculated as the product of the total reported consumption and the uplift factor.

$$\text{Total consumption} = \text{total reported consumption} \times \text{uplift factor}$$



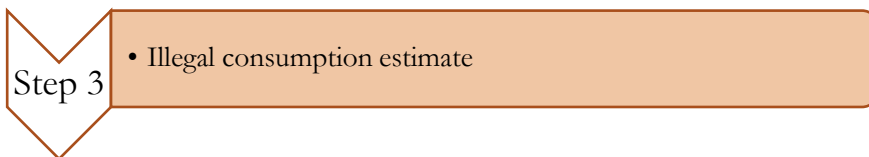
Step 2

- Legal consumption estimate

The number of tax-paid cigarettes was estimated using tax information on manufacturers in Canada, importers of cigarettes, and duty-free shops. To estimate RYO cigarettes, we used cigarette fine-cut tobacco sales data, expressed in units of weight (kilograms), as reported by tobacco manufacturers to Health Canada.

The number of cigarettes that have expired or have been exported are subtracted since there are quantities for which producers or importers are entitled to claim reimbursements (referred to as “refunds”).

$$\text{Legal consumption} = \text{domestic production} + \text{imports} + \text{RYO cigarettes} - \text{refunds}$$



Step 3

- Illegal consumption estimate

Illegal consumption is estimated by taking the difference between total consumption and legal consumption of cigarettes.

$$\text{Illegal consumption} = \text{total consumption} - \text{legal consumption}$$

²⁰ An uplift factor is common to account for under-reporting in self-reported surveys related to tobacco consumption. For example, see: International Agency for Research on Cancer: Handbook of Cancer Prevention: Methods for Evaluating Tobacco Control Policies.

Step 4

- Federal cigarette duty gap estimate

The federal cigarette duty tax gap is then estimated by multiplying the average federal cigarette duty rate (for five cigarettes) by the magnitude of the illegal consumption (number of illegal cigarettes). The average federal duty rate corresponds to the average of the official duty rates on a daily basis between January 1st and December 31st of each year.

$$\text{Federal cigarette duty gap} = \text{illegal consumption} \times \text{federal cigarette duty rate}/5$$

Details of the calculations are presented in the table below.

Table 13: Steps for estimating federal excise duty gap for tax years 2014-2018

| | 2014 | 2015 | 2016 | 2017 | 2018 |
|--|-----------|-----------|-----------|-----------|-----------|
| Estimate of consumption from survey (billions of cigarettes) | 22.9 | 21.6 | 21.1 | 20.1 | 19.03 |
| Uplift factor | 1.54 | 1.54 | 1.54 | 1.54 | 1.54 |
| Step 1: Total consumption (billions of cigarettes) | 35.2 | 33.3 | 32.5 | 30.9 | 29.3 |
| Step 2: Legal consumption (billions of cigarettes) | 30.5 | 28.8 | 29.0 | 27.8 | 26.0 |
| Step 3: Illegal consumption (billions of cigarettes) | 4.6 | 4.4 | 3.5 | 3.2 | 3.4 |
| Federal cigarette excise duty rate* | \$0.51456 | \$0.52575 | \$0.52575 | \$0.53602 | \$0.58742 |
| Step 4: Federal excise duty gap (\$ billions)** | \$0.5 | \$0.5 | \$0.4 | \$0.3 | \$0.4 |

* Amounts are in nominal dollars.

** Amounts are in constant 2018 dollars.

Note: numbers may not add up due to rounding.

Key sources of uncertainty:

- Legal consumption was estimated using administrative data which reflects sales or deliveries to wholesalers rather than to direct consumers of cigarettes.²¹ In addition, it does not include all cigarettes purchased abroad (such as cigarettes purchased by travellers returning to Canada) but includes cigarettes purchased by visitors to Canada who are smokers.

²¹ Although these would be generally aligned over time, there may be remaining stock or inventory that is not consumed in the same year.

- It is assumed that the cigarette consumption habits of the population excluded from CCHS sampling frame are identical to those of the rest of the Canadian population aged 15 years and older.²²
- Smokers of illicit tobacco may reduce their consumption if they have to pay cigarettes at a higher legal price that includes tobacco duty, if all illicit cigarettes were eliminated. Therefore, the federal cigarette duty gap may not be fully recoverable.
- The most important limitation of this method is that it is sensitive to the assumption which determines the uplift factor used to estimate total consumption of cigarettes. Based on Guindon et al. (2017), it is assumed in this report that 35% of cigarettes were unaccounted for in the survey data due to under-reporting by survey respondents. However, if this assumption is modified, the federal cigarette duty gap is subject to significant change. See the sensitivity analysis in the table below for more details.

Table 14: Sensitivity analysis with changes to the under-reporting assumption for tax year 2018*

| Under-reporting assumption | Uplift factor | Total consumption estimate (billion cigarettes) | Illegal consumption estimate (billion cigarettes) | Federal cigarette duty tax gap estimate (\$ billion) |
|----------------------------|---------------|---|---|--|
| 30% | 1.43 | 27.2 | 1.2 | \$0.1 |
| 35% | 1.54 | 29.3 | 3.3 | \$0.4 |
| 40% | 1.67 | 31.7 | 5.8 | \$0.7 |
| 45% | 1.82 | 34.6 | 8.6 | \$1.0 |

* Figures may not add due to rounding.

Public references:

- CRA tax gap report: tax gap for federal excise duty on cigarettes, 2020.
- Guindon, G Emmanuel, Robin Burkhalter and K Stephen Brown. "Levels and trends in cigarette contraband in Canada", *Tobacco control* 26(5), (2017): 518-525.
- Her Majesty's Revenue and Customs. "Measuring tax gaps 2020 edition: Tax gap estimates for 2018-19.", 2020.

²² The survey used excludes 3% of the population mainly residents of Indian reserves and other Aboriginal settlements, full-time members of the Canadian Forces and the institutionalized population. The survey also focuses on individuals living in Canada aged 15 or older and therefore, it does not account for those under the age of 15.

6. Payment gap methodology

| Tax gap component | General approach | Key data source | Method |
|-------------------|------------------|---------------------|--|
| Payment gaps | Calculation | CRA accounting data | Calculate uncollected tax revenue after payment due date |

This section outlines the methodology used to calculate the payment gaps for each tax type. The methodology was adjusted from the CRA's previous payment gap publication (2020) in order to add payment gaps to the reporting gap estimates. In addition, the payment gaps were calculated using the latest CRA data at the time of writing this report.

An overview of the payment gap methodology and its steps is illustrated below. Additional details on the methodology can be found in the following pages.



Table 15: Total gross payment gap for tax years 2014 to 2018

| | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|-------|-------|-------|-------|-------|
| In constant 2018 dollars (\$ billions) | \$5.2 | \$7.8 | \$7.9 | \$9.3 | \$9.5 |
| % of overall federal tax revenue* | 2.2% | 3.1% | 3.2% | 3.6% | 3.5% |

* Public Accounts Canada was used to calculate percentage of federal tax revenue.

Scope:

- Uncollected tax revenue from individuals, corporations, GST/HST registrants, and excise tax and duty licensees/registrants due to payment non-compliance for tax years 2014 to 2018
- In general, the payment tax gap includes federal and certain provincial taxes owed and amounts written off as uncollectible (i.e., write-offs).²³ Although taxpayers are sometimes required to pay interest and penalties, the payment gap does not include these amounts since they are not tax liabilities.²⁴ Interest and penalties within write-offs are also excluded from

²³ The CRA is responsible for collecting certain provincial taxes and always pays the provincial taxes due first under federal-provincial tax collection agreements (before any collection actions are completed). Therefore, this report considers these provincial tax liabilities as part of the federal tax debt.

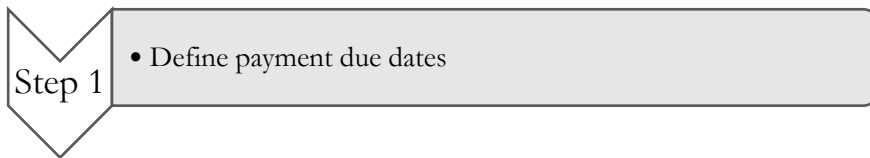
²⁴ Interest and penalties are not tax liabilities but rather amounts which are charged due to non-compliant actions. Similar to previous reports, non-resident taxpayers are excluded from the analysis.

the payment gap results. Payment tax gap also excludes interest, penalties, unresolved appealed amounts, and payment gap related to non-residents.

Key data sources:

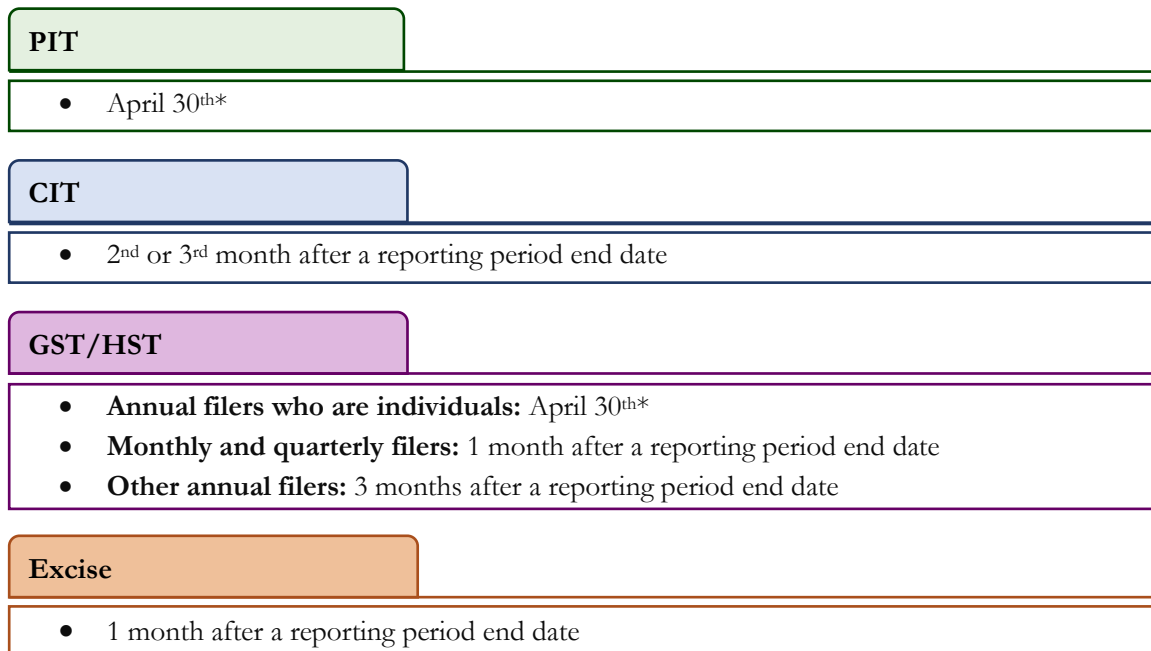
- CRA Accounting data as of June 2021

Estimation and projection method:



Payment tax gap occurs when assessed taxes are not fully paid on time by taxpayers for a particular tax year. A gross payment tax gap was calculated right after the payment due date, which can vary depending on the tax type. The payment due date may coincide with a filing due date but in some cases, it can be different.²⁵ Since each transaction (e.g., payment) may take several days to be posted in the CRA’s accounting system, the gross payment tax gap was calculated 10 days after the actual payment due date to account for potential processing times. The payment due dates for each tax type are outlined below.

Figure 3: Payment due dates by tax type



* A due date has been adjusted accordingly if a deadline falls on a weekend

²⁵ For example, the filing due date for self-employed individuals is June 15, but the payment due date is April 30.

Step 2

- Calculate payment gaps from outstanding balance

Before presenting how the payment gaps are calculated, it is important to highlight certain key features of payment non-compliance that helped shape the methodology. First, payment non-compliance from a tax gap perspective is different from a tax administration perspective. From a tax gap perspective, payment non-compliance is related to foregone tax revenue regardless of whether it is collectable or not. In contrast, from a tax administration perspective, what matters is collectable outstanding debt, whether or not it is a tax, interest, or penalties. Therefore, the payment gaps in this report do not measure the overall outstanding debt (which can include interests and penalties) and instead calculates uncollected tax revenue, even when it becomes uncollectable (i.e., write-offs). Second, the CRA is responsible for collecting certain provincial taxes and always pays provincial tax liabilities first under federal-provincial tax collection agreements (before any collection actions are completed).²⁶ Therefore, all of the payment gap is generally considered to be part of the federal tax debt from a tax gap perspective.²⁷ This is why certain provincial taxes owed are included in the scope of the payment gap. Finally, the payment gap for a given tax year is constantly changing due to reassessments by the CRA (e.g., audit results increasing or decreasing the balance owing) and payments by taxpayers (e.g., reducing the tax debt by making payments to the CRA). Therefore, it is particularly important to treat the payment gap as an evolving measure rather than a static figure at a point in time. To better account for these changes, the gross and net payment gaps were calculated separately. This was also necessary in order to add the payment gaps to reporting gap estimates.

Given these unique features, a methodology was specially developed to derive the payment gap from outstanding tax debt.

$$\text{Payment gap} = \text{outstanding debt} - \text{interest \& penalties} + \text{WO}$$

Where:

- **Outstanding debt** is the amount that occurs when a taxpayer does not pay (partially or fully) their positive balance owing which can include taxes, interests, and penalties owed to the CRA
- **Interest & penalties** is the amount that the CRA charges for late or insufficient payments, or other types of non-compliance
- **Write-offs (WO)** is the amount of debt that is uncollectible. However, since it still contributes to uncollected tax revenue, it is included in the payment tax gap

²⁶ The procedure for the administration of provincial taxes is outlined in the tax collection agreements with each province.

²⁷ Provinces that administer tax their own taxes are not included in CRA's accounting data and the corresponding provincial tax liability is not considered part of the federal tax debt from a tax gap perspective.

Step 3

• Payment gap by tax type

The **PIT payment gap** in this report includes unpaid federal personal income tax, unpaid provincial personal income tax (except Quebec), unpaid First Nations personal income tax, repayable deductions and credits, and all uncollectable debt (i.e., write-offs). According to the findings from the previous study, the individual payment gap is at its highest level after one year.

The **CIT payment gap** includes unpaid federal corporate income tax, unpaid provincial corporate income tax (except in Quebec and Alberta), and all uncollectable tax debt (i.e., write-offs). Corporations can range from small businesses to multinational corporations. The corporation payment gaps for earlier tax years reached their highest level after the fifth or sixth year as complex audits with high adjustments were completed around that time. From there, the payment gap declined as corporations paid down their tax debt.

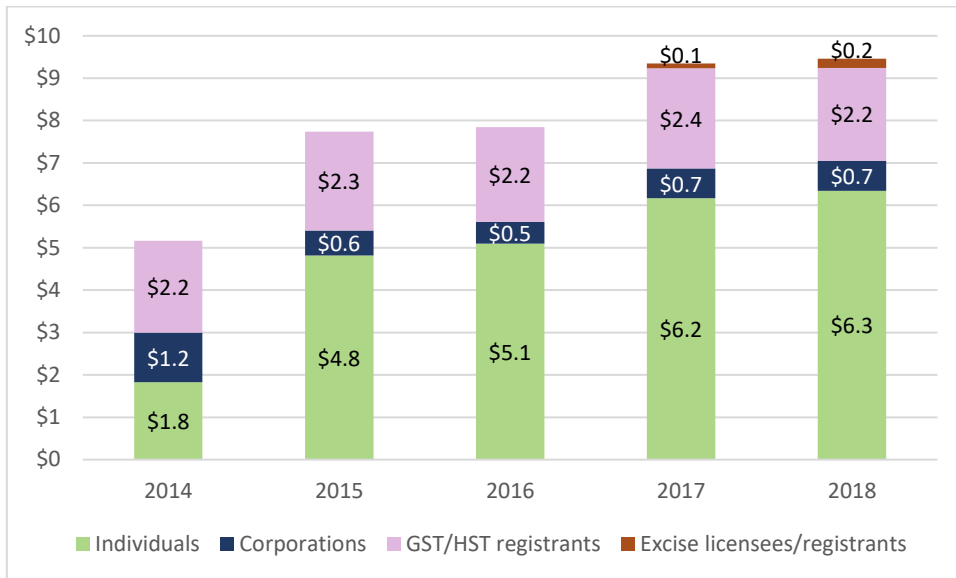
The **GST/HST payment gap** includes unpaid GST (federal sales tax), unpaid HST (harmonized sales tax of relevant provinces), unpaid sales tax for First Nations governments, unpaid sales tax for certain financial institutions, and all uncollectable tax debt (i.e., write-offs). The GST/HST payment gap tends to be at its highest level after the first two years. From there, the payment gap starts declining as taxpayers pay off their outstanding tax debt.

The **excise payment gap** includes unpaid excise duties and taxes as well as all uncollectable tax debt (i.e., write-offs). Between tax years 2017-2018, the payment gap ranged from around \$0.1 billion to \$0.2 billion, most of which came from a small number of licensees/registrants. Given the small number of non-compliant licensees/registrants and the negligible payment gap for tax years 2014 to 2016, the exact amounts could not be reported for previous tax years to maintain taxpayer confidentiality.

The **total gross payment gap** includes payment gaps for individuals, corporations, GST/HST registrants, and excise licensees/registrants. Over the study period, the payment gap stemmed largely from individuals (around 60%) and GST/HST registrants (around 30%). Corporations had relatively low levels of payment non-compliance (around 10%)²⁸ and the excise payment gap was mostly negligible.

²⁸ For tax year 2014, the corporate payment tax gap is slightly higher due to several outliers, and the individual payment tax gap is unusually lower.

Figure 4: Gross payment tax gap by taxpayers* (\$ billion)



* Does not include non-residents. All amounts are in 2018 constant dollars.

Source: CRA's accounting systems as of June 2021.

Key sources of uncertainty:

- Payment gaps are continuously evolving due to the normal tax administration process (e.g., audits, payments, transfers, appeals). In addition, different taxpayers have different payment due dates which could impact the timing of payment non-compliance. Therefore, fluctuations in the payment gap must be interpreted carefully.

Public References:

- Payment tax gap and collection efforts (2020). Canada Revenue Agency.
- Payment due dates for individuals (2021). Retrieved from: <https://www.canada.ca/en/revenue-agency/services/tax/individuals/topics/important-dates-individuals.html>
- Payment due dates for corporations (2021). Retrieved from: <https://www.canada.ca/en/revenue-agency/services/tax/businesses/topics/corporations/corporation-payments/paying-your-balance-corporation-tax/balance-day.html>
- Payment due dates for GST/HST registrants (2021). Retrieved from: <https://www.canada.ca/en/revenue-agency/services/tax/businesses/topics/gst-hst-businesses/pay-when.html>
- Payment due dates for excise duty licensees/registrants (2021). Retrieved from: <https://www.canada.ca/en/revenue-agency/services/forms-publications/publications/edm10-1-1/returns-payments.html>

- Payment due dates for excise tax registrants (2021). Retrieved from:
<https://www.canada.ca/en/revenue-agency/services/forms-publications/publications/x6-2/returns-payments.html>

7. Net tax gap methodology

| Tax gap component | General approach | Key data source | Method |
|-------------------|------------------------|-------------------------------------|--|
| Net tax gaps | Calculation/projection | CRA compliance and collections data | Calculate impact of CRA compliance and collections and subtract from the gross tax gap |

This section outlines the methodology used to calculate the net tax gaps for each tax type. The latest CRA data at the time of writing this report were used. Certain projections were required for reassessments (e.g., audits) that can take multiple years to complete.

An overview of the net tax gap methodology and its steps is illustrated below. Additional details on the methodology can be found in following pages.



Table 16: Total net tax gap for tax years 2014 to 2018

| | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|------------------|------------------|------------------|------------------|------------------|
| In constant 2018 dollars (\$ billions) | \$15.9 to \$20.2 | \$17.4 to \$22.0 | \$17.4 to \$22.1 | \$17.9 to \$23.5 | \$18.1 to \$23.4 |
| % of overall federal tax revenue* | 7% to 9% | 7% to 9% | 7% to 9% | 7% to 9% | 7% to 9% |

* Public Accounts Canada was used to calculate percentage of federal tax revenue.

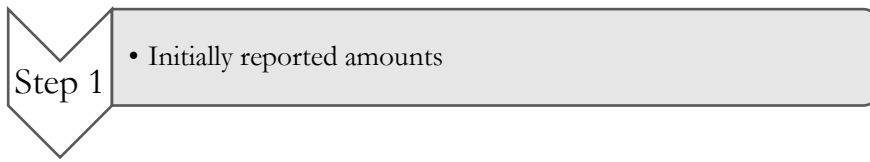
Scope:

- Potential tax revenue loss from individuals, corporations, GST/HST registrants, and excise licensees/registrants due to reporting and payment non-compliance for tax years 2014 to 2018 after accounting for compliance and collection actions.

Key data sources:

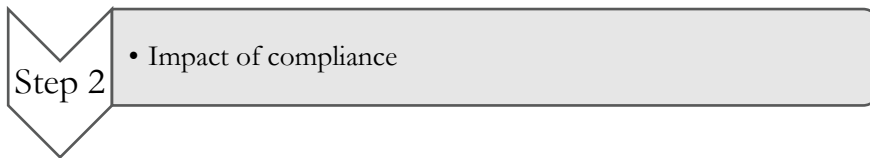
- CRA Accounting data as of June 2021
- CRA Assessing data as of July 2021 based on T1 Income and Benefit Return, T2 Corporation Income Tax Return, Goods and Services Tax / Harmonized Sales Tax (GST/HST) Return
- CRA audit data for GST/HST, corporations and individuals

Estimation and projection method:



Given that compliance activities for tax years 2014 to 2018 have not all been completed, it was necessary to project the impact of compliance. To develop this projection method, it was first necessary to examine how taxpayers initially report their taxes on their first submission of their tax returns. These amounts were examined to establish a baseline of how the taxpayer population and the tax system (e.g., tax rates) have changed during tax years 2014 to 2018. For consistency, initial assessments up to one year after a given tax year were examined. Specifically:

- **Individuals:** net federal tax (line 42000 on the T1 Income Tax and Benefit Return)
- **Corporations:** total federal tax²⁹ (on page 9 of the T2 Corporation Income Tax Return)
- **GST/HST registrants:** net tax (line 109 of the GST/HST Return)
- **Excise licensees/registrants:** given that the small number of licensees/registrants were found to be largely compliant, the projection of compliance and collections was not necessary



The impact of compliance activities mainly includes adjustments to taxes found by audits.³⁰ Since audits may take several years to complete, especially for taxpayers with high adjustments, it was important to consider audit results as of eight years after a given tax year. The eight year period was selected because the majority of the assessed tax amounts do not change significantly after this time period. However, given that the trend for adjustments from audit for GST/HST registrants is slightly different, those adjustments were projected using the results as of five years after a given tax year. Given that the overall tax gap report examines tax years 2014 to 2018, it was necessary to examine historical data to project the impact of CRA compliance for these tax years. The following steps were taken to project the impact of compliance:

²⁹ Federal tax is net of the dividend refund (line 784 of the T2 form) and the federal capital gains refund (line 788 of the T2 form).

³⁰ The CRA also conducts other compliance activities to reduce non-compliance but they were not considered in this report in order to match the scope of the tax gap estimates.

- A. Calculate a ratio of compliance results and initially reported taxes (CRR) for tax years 2010 to 2012³¹ and find an average for those years:

$$CRR = \frac{1}{n} \sum_i^n \frac{\text{compliance results}_i}{\text{tax}_i}$$

where $i = 2010, 2011, 2012$

- B. Project compliance results³² based on the ratio and initially reported taxes:

$$\widehat{\text{Compliance results}}_i = \text{tax}_i * CRR$$

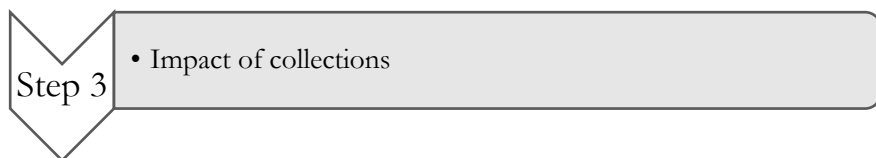
where $i = 2014, 2015, 2016, 2017, 2018$

- C. Calculate the net tax gap for each tax year:

$$\widehat{\text{Net reporting tax gap}}_i = \widehat{\text{tax gap}}_i - \widehat{\text{compliance results}}_i$$

where $i = 2014, 2015, 2016, 2017, 2018$

The main assumption of this projection approach is that the ratio of compliance results to the initially reported taxes is relatively constant over time. This assumption will be monitored and the impact of compliance will be updated as more recent compliance data becomes available.



The impact of collections includes all the changes related to the payment gap starting from the payment due date to 10 years after a given tax year. This 10 year period was selected based on CRA's internal assessment on the evolution of the payment gap. This also helped account for certain compliance activities that may impact the payment gap. It is important to note that the payment gap can change due to factors other than CRA collection activities such as reassessments and voluntary payments. For example, audit reassessments may increase the payment gap while appeal reassessments and voluntary payments may decrease it.

³¹ Tax years from 2007 to 2009 were tested, but have not been used due to the potential impact of the 2008 economic recession. For GST/HST gap, tax years from 2010 to 2015 were used for calculating CRR.

³² Compliance results for GST/HST gap were projected from 2016 to 2018 tax years.

Given that projecting the impact of collections involves identifying both increases and decreases to the payment gap, it was necessary to project a net payment tax gap, defined as the payment tax gap 10 years after a given tax year. The following steps were taken for this projection approach:

- A. Calculate a ratio of net payment tax gap and initially reported taxes (PTGR) for tax years 2007 to 2010³³ and find an average for those years:

$$PTGR = \frac{1}{n} \sum_i^n \frac{\text{net payment tax gap}_i}{\text{tax}_i}$$

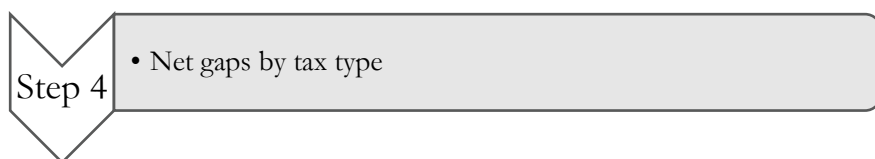
where $i = 2007, 2008, 2009, 2010$

- B. Project net payment tax gap based on the ratio and initially reported taxes:

$$\widehat{\text{net payment tax gap}}_i = \text{tax}_i * PTGR$$

where $i = 2014, 2015, 2016, 2017, 2018$

The main assumption of this projection approach is that taxpayers pay out the same portion of reported taxes 10 years after a given tax year. This assumption will be monitored and the impact of collections will be updated as more recent collections data becomes available.



The table below presents the net tax gaps by tax types. For more information on the tax gap results, see the overall federal tax gap report on Canada.ca.

Table 17: Net tax gap by components for tax years 2014 to 2018* (in billions)

| | 2014 | 2015 | 2016 | 2017 | 2018 |
|---------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Individuals | \$7.8 to \$9.6 | \$8.2 to \$10.4 | \$8.6 to \$10.7 | \$9.0 to \$11.8 | \$8.3 to \$10.3 |
| Corporations | \$4.2 to \$6.7 | \$4.3 to \$6.7 | \$4.6 to \$7.2 | \$4.9 to \$7.7 | \$5.1 to \$8.3 |
| GST/HST | \$3.4 | \$4.3 | \$3.8 | \$3.6 | \$4.3 |
| Excise | \$0.5 | \$0.5 | \$0.4 | \$0.4 | \$0.4 |
| Total | \$15.9 to \$20.2 | \$17.4 to \$22.0 | \$17.4 to \$22.1 | \$17.9 to \$23.5 | \$18.1 to \$23.4 |

* All amounts are in constant 2018 dollars. Totals may not add due to rounding.

³³ The recession years were included because there were no noticeable effects in the data.

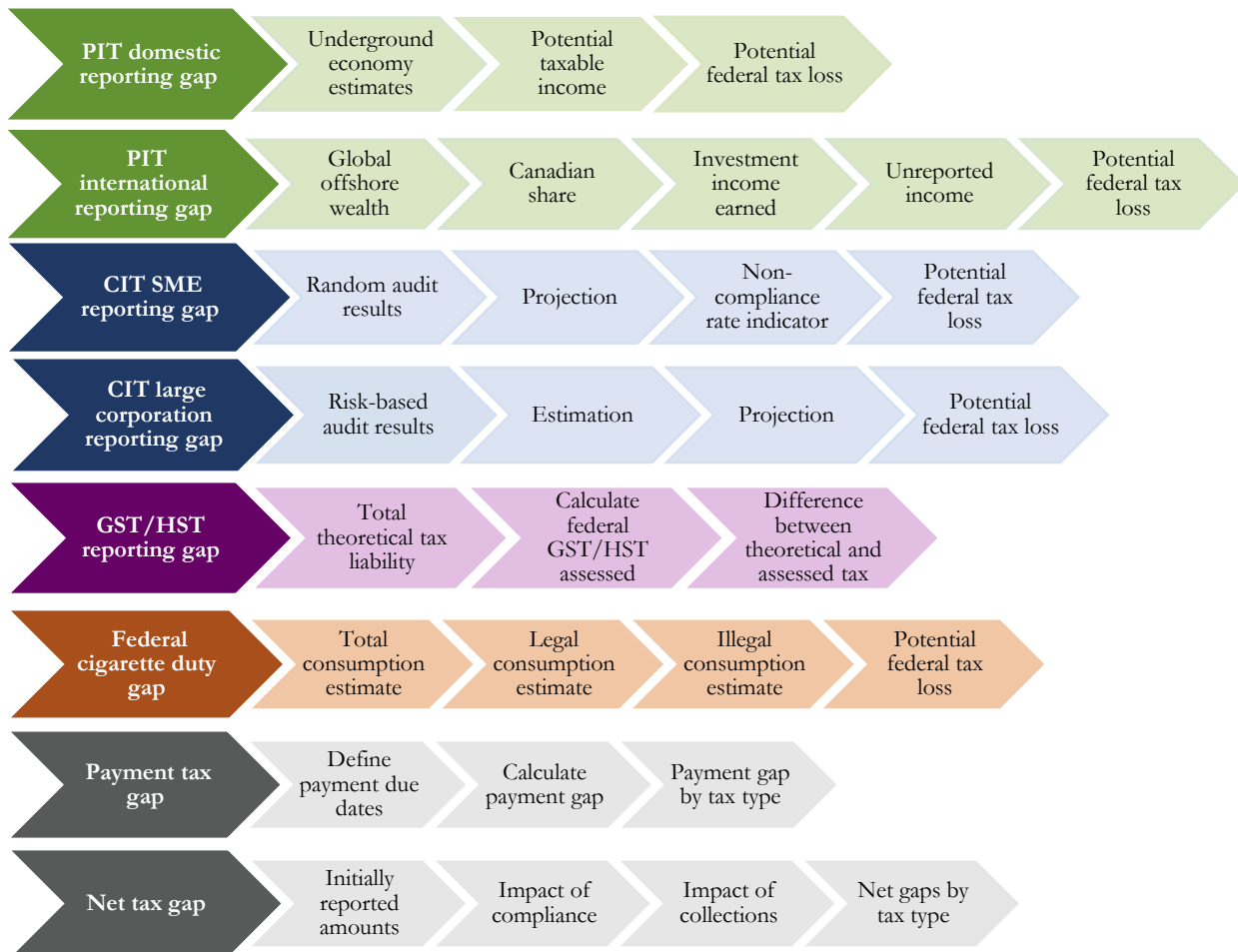
Key sources of uncertainty:

- Net tax gap is subject to change if the underlying projection assumptions are not satisfied. This is why the CRA will continue to monitor and update the impact of compliance and collection activities as they finalize over time.

8. Conclusion

The CRA is committed to openness and transparency as a world-class tax and benefit administration. Therefore, the CRA continues to study and publish Canada’s federal tax gaps, including the methodologies underlying each tax gap component. This methodological annex outlined technical details related to these methods, including the scope of analysis, data sources, estimation and projection methods, sources of uncertainty, and public references. High-level summaries of Canada’s tax gap methodologies are presented below:

Figure 5: Tax gap components and their estimation steps



Through an ongoing effort to reduce the tax gap, the CRA will continue to preserve the integrity of the tax system and protect Canada’s revenue base, which supports programs and benefits that improve the quality of life for all Canadians.

Glossary

| Term | Definition |
|----------------------------------|--|
| Canadian resident | Individuals are Canadian residents for tax purposes if they maintain or establish residential ties to Canada. |
| Capital gains | The total amount that is earned when capital property (for example, land, buildings, shares, bonds, and fund and trust units) is sold or transferred for proceeds that exceed its costs. The income inclusion for capital gains is calculated in Schedule 3 of the personal income tax return. A taxpayer can claim a capital loss when the sale price of the capital property is lower than its cost. However, capital losses cannot be claimed against other sources of income. |
| Cluster analysis | Cluster analysis refers to a broad set of statistical techniques for identifying subgroups or "clusters" in a population, where objects in the same cluster are more similar to each other than to those in other clusters. In the context of tax gap analysis, clustering techniques were used to determine whether large corporations could be organized into relatively distinct groups or clusters on the basis of certain key variables to estimate the potential level of non-compliance within each cluster. |
| Dividend | <p>Profits received from owning shares in a corporation. An individual can receive profits based on the shares they own. Under Canadian tax rules, there are three types of dividends:</p> <ul style="list-style-type: none"> • Eligible: any taxable dividend paid after 2005 to a Canadian resident by a Canadian corporation that has been designated by that corporation as an eligible dividend, • Other than eligible: generally all other taxable dividends, and • Capital dividends: tax-free dividends that represent, generally, the untaxed portion of capital gains earned at the corporate level. |
| Extreme value methodology | In the context of tax gap analysis, the extreme value methodology assumes that the majority of tax non-compliance in the large corporate population is concentrated in a relatively small number of corporations. It also assumes that the magnitude of non-compliance will tend to drop off exponentially when ranking corporations according to their level of non-compliance as one moves down the ranks of corporations from the most to the least non-compliant (highest to lowest). Based on the ranking of audited large corporations and the amount of federal tax adjustments identified from audit, a regression analysis is then used to extrapolate tax non-compliance to the rest of the large corporate population in order to obtain an estimate of the tax gap for large corporations. |

| Term | Definition |
|--|---|
| Federal cigarette duty gap | Federal revenue losses resulting from products (imports or domestic production) for which excise duties have not been paid. It represents the difference between actual excise revenue and potential excise revenue. |
| Federal marginal effective tax rate | The EMTR is the tax rate bearing on the incremental dollar of income that is earned, or the next dollar earned, by an individual. For individuals, comprehensive EMTR measures take into account the income thresholds and statutory rates of the personal income tax system, as well as the impacts of tax deductions and credits and income-tested federal and provincial benefits. |
| Gap analysis | A method used to estimate tax non-compliance by estimating the difference between total or actual consumption of a product and tax-paid sales. |
| Large corporation | For the purpose of this report, large corporations are incorporated businesses with gross revenues of more than \$20 million, except those in certain designated industries where the limit is more than \$50 million (i.e., manufacturing, transportation and allied services, wholesale trade, and retail and services). |
| Non-resident | A non-resident either: i) normally, customarily, or routinely lives in another country and is not considered a resident of Canada; OR ii) does not have significant residential ties in Canada; and lives outside Canada throughout the tax year or stays in Canada for less than 183 days in the tax year. |
| Offshore investment income | Income earned from investments located outside Canada. Canadian residents must report investment from both Canadian and foreign sources. |
| Outstanding debt | When there is a positive balance owing, a taxfiler must pay this amount to the CRA by the due date. Otherwise, the outstanding debt becomes part of the payment gap. |
| Rate of return | Generally, the gain or loss on an investment over a specified time period, expressed as a percentage of the investment's cost. Gains on an investment is income received plus any capital gains realized on the sale of the investment. |
| Securities | Tradable financial assets, including debt and equity securities. Debt securities (for instance, government bonds) are generally issued for a fixed term where the holder is entitled to the principal amount and interest income. Equity securities (for instance, stocks) are generally issued to signify an ownership position in a company and can provide dividend income. If securities are sold at a higher price than they were purchased, it results in a capital gain. |

| Term | Definition |
|--|--|
| Small and medium-size enterprises (SME) | SMEs are incorporated businesses with gross revenues of less than \$20 million, except those in certain designated industries where the limit is less than \$50 million (i.e., manufacturing, transportation and allied services, wholesale trade, and retail and services). |
| Stock of offshore wealth | For the purposes of this report, the stock of offshore wealth is comprised of the total portfolio of securities and offshore bank deposits held outside of Canada by Canadian residents. |
| Underground economy (UE) | The UE is commonly understood as economic activity or income that is purposely hidden from public authorities, which can include working under the table or skimming (when revenues are under-reported or costs over-reported to understate net income). A variety of definitions for the UE exist – depending on the context, it may include activities that are officially measured and unmeasured, taxable and non-taxable, legal and illegal, or even very small-scale economic activities that generate income. From the CRA's perspective, the UE includes any activity that is unreported or under-reported for tax purposes. |