OFFICE OF THE
PARLIAMENTARY
BUDGET OFFICER

BUREAU DU DIRECTEUR
PARLEMENTAIRE DU
BUDGET

CANADA

Costing Budget 2018 Measures

Ottawa, Canada
23 April 2018
www.pbo-dpb.gc.ca

The Parliamentary Budget Officer (PBO) supports Parliament by providing analysis, including analysis of macro-economic and fiscal policy, for the purposes of raising the quality of parliamentary debate and promoting greater budget transparency and accountability

Consistent with the Parliamentary Budget Officer's legislated mandate, this report provides independent cost estimates of select Budget 2018 Measures.

Parts of this analysis are based on Statistics Canada's Social Policy Simulation Database and Model. The assumptions and calculations underlying the simulation results were prepared by the OPBO and the responsibility for the use and interpretation of these data is entirely that of the authors.

This report was led by:
Carleigh Busby, Financial Analyst

With analysis from:
Nasreddine Ammar, Economic Analyst;
Philip Bagnoli, Financial Advisor - Analyst;
Govindadeva Bernier, Financial Analyst;
Scott Cameron, Advisor;
Negash Haile, Research Assistant;
Jason Jacques, Senior Director;
Mark Mahabir, Director;
Jason Stanton, Financial Analyst;

Nancy Beauchamp and Jocelyne Scrim assisted with the preparation of the report for publication.

Please contact pbo-dpb@parl.gc.ca for further information.

Jean-Denis Fréchette
Parliamentary Budget Officer

Table of Contents

Overview 1

Enhancing and Improving Access to the Working Income Tax Benefit 4

Supporting Equal Parenting and the Flexibility for Earlier Returns to Work 8

Foregone tariff revenues from CPTPP 13

Mineral exploration tax credit for flow-through share Investors 16

Medical Expense Tax Credit Expansion for Psychiatric Service Dogs 18

Increase in Tobacco Excise Taxes 21

Legalization of Recreational Cannabis and Imposition of Excise Taxes 24

Deductibility of employee contributions to the enhanced portion of the Quebec Pension Plan 28

Foreign-born Status Indians and the Canada Child Benefit 30

Extending Tax Support for Clean Energy 34

Overview

On September 21, 2017, the Parliament of Canada Act was revised to expand the PBO's mandate to include estimating the financial cost of election campaign proposals. In preparation of the upcoming 2019 federal general election, PBO used Budget 2018 as an opportunity to assess its existing capacity to cost a variety of policy initiatives within a short period of time.

Upon publication of Budget 2018, PBO assessed all new measures for their eligibility for independent costing.[1] There were roughly 160 fiscal initiatives identified in Budget 2018. These were classified as one of two types:

1) Measures of total spending envelopes, for which the government commits to allocating a specific amount of resources for a certain policy priority (such as Canada Summer Jobs which proposes to provide additional funds to the Youth Employment Strategy); or,

2) Measures for which either the number of stakeholders affected by the policy or their potential benefits/costs are uncertain, thus necessitating an independent cost estimate.

PBO's electoral costing strategy document indicates only the latter will be considered for independent cost analysis as part of the 2019 electoral platform costing exercise.[2]

Of the roughly 160 new measures, PBO identified 17 that could potentially be estimated and projected in-house.

Of those 17 Budget 2018 measures, PBO had the capacity and resources available to produce an independent cost estimate within a short period of time for 10, including:

- Canada Workers Benefit – Enhancement and Accessibility;
- EI Parental Sharing Benefit (Supporting Equal Parenting);
- Foregone Tariff Revenues from CPTPP;
- Supporting Early-Stage Mineral exploration by Junior Companies;
- Expanding the Medical Expense Tax Credit for Psychiatric Service Dogs;
- Tobacco Taxation;
- Cannabis Taxation;
- Deductibility of Employee Contributions to the Enhanced Portion of the Quebec Pension Plan; and,
- Improving Access to the Canada Child Benefit and Other Benefits.

- Extending Tax Support for Clean Energy;

These estimates include a five-year projection, beginning in the 2018-19 fiscal year, and are incorporated into PBO's Economic and Fiscal Outlook for April 2018. Summary Table 1 presents PBO's estimates of the costs of these 10 measures from 2017-18 to 2022-23. In addition to direct costs, these estimates include the costs associated to a behavioural response, administrative costs and expected revenue offsets, when feasible.

Summary Table 1 PBO Fiscal cost estimates of select Budget 2018 measures

$millions (net cost)	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023
Canada Workers Benefit						
Enhancement	0	127	509	517	525	536
Accessibility	0	106	425	430	436	444
Supporting Equal Parenting						
Benefits plus Administrative costs	0	0	237	296	307	318
Premiums	0	-65	-260	-270	-280	-290
Foregone Tariff Revenues from CPTPP	0	82	443	495	602	671
Supporting Early-Stage Mineral exploration by Junior Companies	0	50	-20	0	0	0
Expansion of the Medical Expense Tax Credit	0	0.3	0.2	0.2	0.2	0.2
Tobacco Taxation	-25	-310	-335	-185	-250	-315
Cannabis Taxation	0	-50	-100	-125	-160	-175
Deductibility of Employee Contributions to the Enhanced Portion of the Quebec Pension Plan	0	5	20	35	60	90
Child Benefits	0	5.3	0	0	0	0
Tax Support for Clean Energy	0	0	10	40	70	75

Note: Negative numbers are revenues or reduction in costs, positive numbers are costs or foregone/loss of revenues.

Overall, our summed net fiscal cost estimates are greater than those of the government. In particular, PBO's cost estimates of the accessibility portion of the Canada Workers Benefit (CWB) and the foregone revenues from Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) are higher than those in the 2018 Budget, while PBO's projected revenues from the Cannabis excise taxes are lower. Additionally, this report publishes the cost estimates of measures that were too small or were otherwise not explicitly reported in Budget 2018, such as the Expansion of the Medical Expense Tax Credit.

The upcoming 2019 pre-election period will place additional demands on the PBO to publish many estimates over a short period of time. This report reflects the PBO's active response to this mandate expansion, containing independent cost estimates that were prepared and published in less than

60 days. Over the course of the next year, PBO will continue to develop in-house capacity and strengthen its relationship with federal departments to meet its pre-election costing responsibility.[3]

---

[1] Canada. Department of Finance. *Budget 2018*. February 27, 2018. https://www.budget.gc.ca/2018/docs/plan/budget-2018-en.pdf

[2] Parliamentary Budget Officer, "Guidelines for Cost Estimates of Election Campaign Proposals". 2018. http://www.pbo-dpb.gc.ca/web/default/files/Documents/General/Guidelines%20on%20Cost%20Estimates%20for%20Electoral%20Platform%202018-01-24_EN.pdf

[3] Ibid, note 2.

PBO | Fiscal analysis

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

Budget 2018 Initiatives

Title: Enhancing and Improving Access to the Working Income Tax Benefit

Lead analyst:	Nasreddine Ammar; Nasreddine.Ammar@parl.gc.ca
Work stream:	Personal Income Tax
Description:	Beginning on April 1, 2019, Budget 2018 proposes to enhance the program to the Canada Workers Benefit (CWB) and improve access to it. The maximum benefit will increase from: • $1,192 to $1,355 for single individuals without dependants; • $2,165 to $2,335 for families (couples and single parents); The phase-out threshold will increase from: • $12,256 to $12,820 for individuals; • $16,926 to $17,025 for families. The phase-out rate will decrease from 14% to 12% for individuals and families. The maximum WITB disability supplement will increase from $540 to $700. The phase-out threshold of the supplement will increase to: • $24,111 for single individuals without dependants; • $36,483 for families. The reduction rate of the disability supplement will decrease from: • 15% to 12% for the basic benefit; • 7.5% to 6% where both partners in a family are eligible for the supplement. Budget 2018 also proposes to allow the Canada Revenue Agency (CRA) to determine if the individual is eligible to receive the benefit and assess their return as if the benefit had been claimed.

Summary

$millions		2018-19	2019-20	2020-21	2021-22	2022-23
Static cost of Enhancement	Cash	127	509	517	525	536
Total cost of Enhancement (net)		**127**	**509**	**517**	**525**	**536**
Budget 2018 estimate		125	505	510	515	520

Static cost of improving access	Cash	106	425	430	436	444
Total cost of Access (net)		**106**	**425**	**430**	**436**	**444**
Budget 2018 estimate		45	191	195	200	200

Notes: All costs are rounded to nearest $1 million. Negative numbers are revenues; positive numbers are costs.

1. Background

The Working Income Tax Benefit (WITB) was introduced in Budget 2007 and was enhanced in Budget 2009 and again in Budget 2016.

It is a refundable tax credit that supports low-income workers. It is generally available to low-income individuals 19 years of age and older not attending school full-time. It provides a monthly benefit that increases with annual employment income, up to a maximum once annual employment income reaches a threshold. After this threshold, the WITB is reduced for each additional dollar of employment income earned, and phases out completely once income reaches a threshold. Persons with a disability may also receive a WITB disability supplement. [1]

The Canada Workers Benefit (CWB), as introduced in Budget 2018, will increase the maximum WITB benefit, ($1,355 for individuals and $2,335 for families in 2019), the maximum threshold ($12,820 for individuals and $17,025 for families in 2019), and reduce the rate at which the refundable tax credit is phased out for both the base and the supplement in 2019. Also, CWB will increase the disability supplement to $700 in 2019. Budget 2018 also proposes increasing the uptake of CWB by having the Canada Revenue Agency (CRA) determine eligibility and benefit amounts automatically, rather than have individuals apply.

2. The credit base (Personal income tax)

The total amount of WITB has varied slightly between 2009 to 2015 and reached a value of $1.17 billion in 2015. The number of WITB recipients has remained roughly stable over the same period. In 2015, there were approximately 1.44 million recipients.[2,3] Accordingly, the average benefit per recipient was $807 in 2015.[4]

The take-up of WITB among eligible tax filers is estimated at approximately 85% in 2012. The remaining 15% did not apply for WITB, but their reported income suggests they may have been eligible.[5]

3. Estimating the pre-behavioral yield/cost

The enhancement cost is calculated as the gap between the value of the new measure of CWB defined in Budget 2018 and the amount in the status quo design that is represented by the Canada Pension Plan-related (CPP) enhancement measure announced in 2016 (see Section 4 for additional details).[6] The cost of the CWB enhancement is then calculated on the basis of full take-up among tax filers. The gap is projected forward using Statistics Canada's SPSD/M, which is a statistically representative database of Canadian individuals in their family context. SPSD/M

can be used to assess the cost implications or income redistribution effects of changes in the personal taxation and cash transfer system.[7]

The accessibility cost is the amount associated with an increased take-up rate under the WITB design without the Canada Pension Plan-related (CPP) enhancement (that is, the 2018 design with normal indexation of parameters in 2019). We anticipate that the proposal will achieve a 100% take-up rate within the population of tax filers beginning in the 2019 tax year. Thus, we calculate the access cost as the difference between the current amount of the credited WITB according to Finance Canada and the value estimated by SPSD/M program.

$millions		2018-19	2019-20	2020-21	2021-22	2022-23
WITB enhancement	Cash	127	509	517	525	536
WITB access	Cash	106	425	430	436	444

4. Key points for consideration

These estimates represent pre-behavioral (static) costs. We do not take behavioral reactions to the new WITB measures into consideration. In theory, the behavioral reaction resulting from the rise in WITB and the access improvement could affect the estimated cost through two main channels. First, the WITB enhancement could have a positive impact on labor force participation, leading to higher WITB (positive effect on the total cost). Second, the enhancement measure and the access improvement could have a positive income effect, yielding more household spending. The latter could increase the federal commodity income tax (negative impact on the total cost). The combined effect depends on the magnitude of each impact.

Bill C-26, which was passed in 2016, enhanced WITB beginning in 2019. Under that enhancement, WITB will provide a refundable tax credit of 26 per cent of each dollar of earned income in excess of $3,000, reaching a maximum benefit of $2,165 or $1,192 for families and individuals respectively. The benefit is reduced at a rate of 14 per cent of each additional dollar above the phase-out threshold (projected to be $16,925 and $12,256 for families and individuals respectively in 2019). Individuals eligible for the Disability Tax Credit may also receive a WITB disability supplement, with a projected value of up to $540 in 2019.[8]

---

[1] Department of Finance Canada. (2017). "Backgrounder: Enhancing the Working Income Tax Benefit". Retrieved from https://www.fin.gc.ca/n17/data/17-103_2-eng.asp

[2] Canada Revenue Agency. (2017). "Working Income Tax Benefit Statistics". Retrieved from https://www.canada.ca/en/revenue-agency/programs/about-canada-revenue-agency-cra/income-statistics-gst-hst-statistics/working-income-tax-benefit-statistics.html

[3] Department of Finance Canada. (2016). "Report on Federal Tax Expenditures - Concepts, Estimates and Evaluations 2016". Retrieved from https://www.fin.gc.ca/taxexp-depfisc/2016/taxexp16-eng.asp

[4] Finance Canada also provides anticipated total WITB benefits for the years 2016, 2017, and 2018. The anticipated values are located here: https://www.fin.gc.ca/taxexp-depfisc/2017/taxexp1707-eng.asp#Working-Income-Tax-Benefit

[5] Ibid. note 2.
[6] Enacted in Bill C-26, Royal Assent Dec. 15, 2016
[7] Statistics Canada, SPSD/M, v. 26.0.
[8] Ibid. note 1.

Budget 2018 Initiatives

Title: Supporting Equal Parenting and the Flexibility for Earlier Returns to Work

Lead analyst:	Jason Stanton; jason.stanton@parl.gc.ca
Work stream:	Employment Insurance Benefits
Description:	Budget 2018 introduces a new Employment Insurance (EI) Parental Sharing Benefit, which provides additional weeks of parental benefits if both parents agree to share a minimum amount of weeks. Standard EI parental benefits (55% of their average weekly earnings): • Each parent must take a minimum of 5 weeks in order to increase the total amount of sharable weeks from 35 to 40. Extended EI parental benefits (33% of their average weekly earnings): • Each parent must take a minimum of 8 weeks in order to increase the total amount of sharable weeks from 61 to 69. This new incentive is expected to be implemented by June 2019.

Summary

$m		2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Static cost	Cash	-	-	76	79	82	85
Behavioural impact		-	-	143	194	201	209
Administration costs		-	-	18	22	23	24
Total cost (gross)		-	-	237	296	307	318
Offsetting revenues			-65	-260	-270	-280	-290
Total cost (net)		**-**	**-65**	**-23**	**26**	**27**	**28**
Budget 2018 Total cost (gross)		-	4	257	310	320	332
Budget 2018 Offsetting revenues		-	-96	-276	-285	-296	-306

Note: Negative numbers are revenues, positive numbers are costs.

1. Background

Employment Insurance parental benefits are available to parents who are caring for their newborn(s) or newly adopted child/children. Eligible parents can select from two options:[1]

- Standard: 55% of average weekly earnings for 35 weeks; and,
- Extended: 33% of average weekly earnings for 61 weeks. [2]

Budget 2018 seeks to improve gender equality at home and work by providing additional weeks for parents who agree to share their parental leave.

2. The eligible beneficiaries (expenses)

In 2015-16, there were 196,660 parental claims, totalling approximately $2.64 billion. Women represent the majority of the total claims (169,970) and amount paid ($2.43 billion).[3]

To qualify for the additional total shared parental weeks, both parents must take a minimum of 5 or 8 weeks (standard and extended options). As highlighted in Budget 2018, approximately 12% of new fathers (outside of Quebec) claimed or intend to claim parental benefits.[4]

3. Estimating the pre-behavioural cost

Employment and Social Development Canada (ESDC) reported the number of parental claims in 2015-16.[5] PBO used the growth rate of the projected Canadian population under the age of one to estimate the annual number of claimants to 2023.[6]

An assumption was made that the estimate of the number of new fathers projected to take parental leave, based on historical data, is a reasonable estimate for the number of two parent families who are currently eligible for this benefit.[7] This does not include the number of net new claims that would be a result of this new benefit (see section 4).

Total projected claims were multiplied by the additional weeks of parental leave and the projected average weekly benefit rate to determine an annual estimate of the pre-behavioural cost.[8, 9]

$millions	**2017-18**	**2018-19**	**2019-20**	**2020-21**	**2021-22**	**2022-23**
Cash			76	79	82	85

4. Estimating the post-behavioural cost

As described above, most new fathers do not currently take parental leave. Therefore, for families to be eligible for the additional parental leave, new fathers represent the large majority of people who will be incentivized to take advantage of this new benefit, and thus represent the majority of the projected cost.

Budget 2018 notes that approximately 80% of new fathers in Quebec take some parental leave, which has a specific leave reserved for them. This new EI measure is based on practices learned from Quebec and other jurisdictions. However, PBO does not expect that it will have a commensurate increase in the participation rate by new fathers, as the federal financial incentives are lower. For example:

- Paternity leave under Quebec Parental Insurance Plan (QPIP) provides a higher percentage of income replacement (70% for standard leave) compared to EI parental benefits (55% for standard leave and 33% for extended leave);[10]

- QPIP does not have a requirement to take a minimum number of weeks in order to be eligible, while this EI measure requires both parents to take a minimum of five weeks parental leave; and,

- Eligibility for QPIP is based on having earned $2,000 in insurable income for the 52 week period prior to the benefit period, regardless of hours worked. EI eligibility is based on having 600 hours of insurable employment during the same qualifying period.[11]

Therefore, PBO used the proportion of EI eligible mothers outside of Quebec that claimed maternity or parental benefits compared to Quebec as a proxy for fathers. [12] This ratio was used to estimate an uptake rate of new eligible fathers outside of Quebec who would be incentivized to take advantage of this new measure.

After netting out the individuals who are currently eligible, as identified in section 3, total projected new claims were multiplied by the additional weeks (five) of parental leave and the projected average weekly benefit rate to determine an annual estimate of the behavioural cost.

$millions	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Behavioural impact	-	-	143	194	201	209

5. Other second-round effects

EI administration expenses have generally hovered between 8-10% of total EI expenses. [13] As this measure increases total EI costs, PBO projects there will be a resulting impact on future administration costs.

$millions	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Administration costs	-	-	18	22	23	24

6. Revenue offsets

EI program revenues and expenses are consolidated and managed within the EI Operating Account. Under law, EI premium rates are set such that they generate just enough premium revenue to balance the EI Operating Account over a seven-year period.

Currently, the 2018 EI premium rate is $1.66 (per $100 of insurable earnings). PBO estimates that they 7-year break-even rate would need to increase in order to account for the additional expenses related to this new budget measure.

$millions	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Offsetting revenues		65	260	270	280	290

7. Key points for consideration

- It is unclear, based on publically available data, the number of two-parent families who currently share parental leave and would be eligible for this benefit. Therefore, an assumption was made to use the number of new fathers that claimed parental benefits as an estimate of current eligible families. This may overestimate the costs.

- No data is publicly available on the percentage of parental claims that receive either the standard or extended parental benefits (this was introduced in Budget 2017). Therefore, all calculations are based on the standard EI parental benefits. Estimating the cost based on the different options could have an impact the total cost estimate.

- PBO estimates that approximately 60% of new fathers eligible for parental benefits could be enticed to use this new benefit. However, given that this is a new measure, it is unclear the exact number of parents that will use this benefit. Therefore, changing this assumption would drastically change the cost estimate.

- PBO estimates the overall impact on PIT revenues to be minimal. The initial decrease in tax revenues from the income replacement reduced rate would most likely be offset by potential employer top-ups, as well as additional people backfilling the roles.

[1] Eligibility rules for parental benefits can be found at: https://www.canada.ca/en/services/benefits/ei/ei-maternity-parental.html

[2] Introduced as part of Budget 2017.

[3] Employment and Social Development Canada, *Employment Insurance Monitoring and Assessment Report for the fiscal year beginning April 1, 2015 and ending March 31, 2016*, March 2017. https://www.canada.ca/en/employment-social-development/programs/ei/ei-list/reports/monitoring2016/chapter2/special.html

[4] Budget 2018. https://www.budget.gc.ca/2018/home-accueil-en.html

[5] Ibid., Note 3

[6] Population estimates data provided by Statistics Canada.

[7] PBO did not have data to identify the number of parents who are currently sharing parental benefits. PBO was also not able to identify the number of single parents and same-sex couples who claimed EI parental benefits.

[8] PBO used its internal projection of wage inflation to grow the average weekly EI benefit amount for both men and women. PBO did not have data on the number of people who take standard or extended parental leave, and therefore the calculations are based on standard leave.

[9] The source of the most recent wage data is Employment Services and Development Canada, *Employment Insurance Monitoring and Assessment Report for the fiscal year beginning April 1, 2015 and ending March 31, 2016*, March 2017. https://www.canada.ca/en/employment-social-development/programs/ei/ei-list/reports/monitoring2016/chapter2/special.html

[10] QPIP information can be found at: http://www.rqap.gouv.qc.ca/a_propos_regime/information_generale/index_en.asp

[11] Self-employed fishers must have earned $3,760 from fishing during the 31-week qualifying period immediately before the start of the benefit period in order to be eligible for EI parental benefits. https://www.canada.ca/en/services/benefits/ei/ei-maternity-parental/eligibility.html

[12] PBO calculated the take-up rate of eligible mothers outside of Quebec was approximately 77% of the take-up rate in Quebec. Data Source: Statistics Canada. 2017. “Employment Insurance Coverage Survey, 2016”. *The Daily*. December 15. Statistics Canada Catalogue no. 11-001-X. http://www.statcan.gc.ca/daily-quotidien/171215/dq171215b-eng.htm (accessed March, 2018).

[13] Receiver General, Public Accounts of Canada, Volume 1, various years. https://www.tpsgc-pwgsc.gc.ca/recgen/cpc-pac/index-eng.html

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

Budget 2018 Initiatives

Title: Foregone tariff revenues from CPTPP

Lead analyst:	Philip Bagnoli; philip.bagnoli@parl.gc.ca
Work stream:	Excise duties
Description:	On ratification of the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP), duties will be reduced or eliminated on imports from 10 countries in the pacific region. If ratification is completed as expected before January 1, 2019, it will impact roughly 12 per cent of Canada's imports for calendar year 2019. The negotiations give each country a period to adapt. For Canada, this means that a schedule of tariff reductions will be implemented gradually, eventually reaching levels below those currently prescribed under NAFTA. During the period to 2023, the average trade-weighted tariff on goods from CPTPP countries will fall from 1.1 per cent across all goods, to around 0.03 per cent.

Summary

Percentage point, $millions		2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Reduction in tariffs (pp)		-	-0.7	-0.1	-0.2	-0.1	-0.1
Static cost	Cash	-	82	443	495	602	671
Total cost/revenue (net)		-	**82**	**443**	**495**	**602**	**671**
Budget 2018 estimate		-	-	455	492	565	597

Notes: All costs are rounded to the nearest $1 million. Negative numbers are revenues, positive numbers are costs.

1. Background

On March 8, 2018, 11 countries[1] signed the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP). That agreement was largely the same as the original Trans-Pacific Partnership (TPP) that included the United States, but suspended some 20 items. Nonetheless, all of the parties' commitments relating to liberalized trade in goods, services, procurement, and investment remained intact.

It will come into force when 6 of the 11 countries have ratified the agreement into national law. This is anticipated for late 2018, but may slip into early 2019 depending on how quickly the parties can resolve some outstanding issues.

The schedule of tariff reductions calls for the bulk of them to occur immediately on ratification. When weighted by the value of imports – both across goods and across countries – about 88 per cent of tariff reductions occur within 4 years of ratification.

2. The tax base (revenue measures)

In 2016, over $64 billion in goods were imported into Canada from CPTPP countries.[2] This is roughly 12 per cent of all of Canada's imports, and represents more than the imports from the European Union. Tariffs from CPTPP countries brought in roughly $726 million, whereas higher tariffs on goods from European countries brought in $1.14 billion.

Eventually, Canada's tariffs on imports from those countries will fall to near-zero levels. Revenues will thus continue to fall as growth in imports (4.2 per cent annually from 2018 to 2023) will not be rapid enough to overcome the drop in tariff rates.

3. Estimating the yield/cost

Tariff reductions specified in the CPTPP are detailed to the level of specific goods bought and sold on world markets. In principle, they could be used with highly detailed data on imports to calculate changes in revenues. An alternative is to use much more aggregated tariff rates and trade data for individual countries that are maintained in a database by the World Bank in the World Integrated Trade Solution There, they are also aggregated to a high level – with 42 composite goods.

Those tariff rates have also been detailed for their changes over time, including beyond 2022. For all 42 goods, the profile of tariff changes on a year-by-year basis have been taken from the World Trade Organisation's International Trade Centre.[3].

To facilitate estimation of future changes in tariff revenues, PBO further aggregated the tariff rates to an annual average (weighted) for all imports across all countries. That is, PBO estimates in 2018-19 that the CPTPP tariff reductions represent a 0.66 percentage point decrease in the average tariff rates applied to CPTPP nations. The combined average tariff across all CPTPP countries was 1.1 per cent.

Percentage points	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Tariff changes	-	-0.66	-0.07	-0.17	-0.07	-0.10

Historical data concerning imports are taken from Industry Canada's Trade Online database (see footnote 2). We project aggregate imports forward to 2023 for individual CPTPP countries using a common growth rate; equal to the growth of aggregate imports used in projecting GDP.

We then calculate lost revenues by using the schedule of future tariff reductions (as shown in the table above), in combination with projected imports.

Growth rate%	2017	2018	2019	2020	2021	2022
Imports	4.7	5.5	4.8	3.8	3.8	3.6

$millions	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Cash	-	82	443	495	602	671

4. Key points for consideration

In September of 2017 the Comprehensive Economic and Trade Agreement (CETA) came into force, which almost immediately eliminated most tariffs on more than 95 per cent of goods traded with the European Union. Those goods represented about 11 per cent of all of Canada's imports. The entry into force of the CPTPP will largely eliminate tariffs on another 12 per cent of Canada's imports. Together the two agreements will lead to a significant loss of more than $1.9 billion in revenue for the federal government.

In principle, that loss of revenue will be more than offset by new investment that will expand the economy and the tax base. However, that expansion is already incorporated into the GDP growth projection, so the federal budget needs to reflect the negative effect of tariff reduction on revenues in order to avoid being overly optimistic concerning future balances.

[1] Canada, Australia, Brunei Darussalam, Chile, Japan, Mexico, Malaysia, New Zealand, Peru, Singapore, Vietnam
[2] Industry Canada, Trade Online database. www.ic.gc.ca/eic/site/tdo-dcd.nsf/eng/Home
[3] The Market Access Maps, www.macmap.org

PBO | Fiscal analysis

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

Budget 2018 Initiatives

Title: Mineral exploration tax credit for flow-through share Investors

Lead analyst:	Scott Cameron; scott.cameron@parl.gc.ca
Work stream:	Personal income tax
Description:	Reduces tax payable by an amount equal to 15 per cent of eligible renounced mineral exploration expenses incurred in Canada

Summary

$millions	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Static	-	50	-20			
Total cost	**-**	**50**	**-20**			
Budget 2018 estimate	-	65	-20			

Notes: All costs are rounded to the nearest $5 million. Positive numbers subtract from net worth, negative numbers add to net worth.

1. Background

The Mineral Exploration Tax Credit is a reduction in tax payable for individuals who invest in flow-through shares.

It is applied as a non-refundable tax credit equal to 15% of specified mineral exploration expenses incurred in Canada by a corporation and transferred to an individual under a flow-through share agreement.

The credit was introduced in 2000 with the intent of expiring in 2004; however, it has been extended on an annual basis since then.

Budget 2018 announced an extension of the credit for an additional year, for flow-through share agreements entered on or before March 31, 2019.

2. Estimating and forecasting the cost/ yield with no change in activity

Data on eligible exploration expenses and amounts claimed up to 2015 were retrieved from T1 Income Tax and Benefit returns and the T2038 Investment Tax Credit (Individuals) form.

The cost was projected for 2016-17 and 2017-18 and forecast for 2018-19 using Natural Resources Canada's Survey of Mineral Exploration, Deposit Appraisal and Mine Complex Development Expenditures (Expenditures and Spending Intentions). Eligible exploration and development expenses were assumed to grow with junior companies' spending intentions with a unit elasticity.

The cost in the year of the extension is partially offset in the following year by additional personal income tax (PIT) revenues, as the investor's cumulative Canadian Exploration Expenses account is reduced by the credit claimed the year before.

3. Key points for consideration

Estimating the post-behavioural cost/yield

Due to the complexity of interaction effects and lack of existing peer reviewed studies, PBO was prevented from quantitatively estimating the impact of the policy on individual and firm behaviour. It is difficult to assign either a sign or magnitude. Some qualitative considerations:

- If additional investment funds are raised that wouldn't be raised otherwise, it would result in additional exploration expenses.
- Additional exploration expense could subtract or add to future CIT and PIT revenue, depending on the return on investment.
- A return on investment would need to be estimated and combined with an elasticity of funding with respect to the tax credit. This may be possible with future research.
- The behavioural impact is likely to fall within the $5 million rounding convention of cost estimates.

Estimating administration costs

Because the measure is an extension of an existing policy that has been in place for 18 years, tax returns and administration systems are well established and efficient. The program's extension is likely to place little additional burden on tax processing and result in negligible marginal administration costs.

PBO | Fiscal analysis

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

Budget 2018 Initiatives

Title: Medical Expense Tax Credit Expansion for Psychiatric Service Dogs

Lead analyst:	Negash Haile negash.haile@parl.gc.ca
Work stream:	Personal Income Tax
Description:	The expansion of the Medical Expense Tax Credit to include expenses of Psychiatric Service Dogs • This measure covers costs of owning a psychiatric service dog. • This tax credit is non-refundable and applies to 2018 and beyond.

Summary

$dollars	2018-19	2019-20	2020-21	2021-22	2022-23
Total cost (net)	$251,000	$152,000	$160,000	$167,000	$176,000

Note: All costs are rounded to the nearest $1 thousand.

1. Background

Budget 2018 commits to expanding the Medical Expense Tax Credit to cover expenses related to psychiatric service dogs. Individuals with severe mental disabilities, such as PTSD, can now claim expenses related to owning and acquiring these support dogs.

Only amounts that exceed the greater amount of either three percent of net income, or an indexed threshold ($2,268 for 2018) are eligible.[1] These eligible amounts can then be claimed as a non-refundable tax credit at a rate of 15%, which reduces the amount of taxes payable to the federal government.

2. The tax base (revenue measures) or eligible beneficiaries (expenses)

The current pool of users of psychiatric service dogs is estimated to be approximately 700. There are an estimated 1.4 million Canadians suffering from severe mental illnesses. The relatively small pool of users as compared to eligible beneficiaries of the new tax credit stems, in part, from a small supply of organizations dedicated to service dog training. Many organizations have wait times of 2 to 3 years.[2]

3. Estimating the pre-behavioural yield/cost

The tax credit is eligible for expenses related to service dogs from specialized organizations. Currently, there are an estimated 10 organizations across the country with an estimated output of 10 to 20 dogs annually. Roughly 80 per cent of such organizations are registered charities and thus do not require upfront purchase fees. The remaining organizations do charge acquisition costs. Acquisition costs can range from $6,000 to $40,000 per dog.[3] PBO estimates the average cost of travel to acquire the service dog will be $200 in 2018.

Other eligible costs include food, veterinary care, grooming, insurance and annual licenses and other incidentals. PBO estimated these costs will be $2,687 in 2018.[4]

PBO assumed the income of these claimants is equivalent to that of persons claiming the disability amount for either themselves or their dependent (excluding spouse), which PBO estimates will be $45,937 in 2018.[5]

We assume the number of organizations specializing in service dogs rises incrementally each year. As such, the user pool of this measure is expected to marginally increase. Therefore, after the first year of implementation, we expect a sharp drop in the fiscal cost in 2019-20 as one-time acquisition and travel expenses are claimed by the bulk of beneficiaries in the previous fiscal year. Going forward, the bulk of expenses are anticipated to be the remaining costs of caring for the service dog, as the one-time costs are only applicable to additional beneficiaries.[6]

$dollars	**2018-19**	**2019-20**	**2020-21**	**2021-22**	**2022-23**
Cash	$251,000	$152,000	$160,000	$167,000	$176,000

4. Key points for consideration

The Medical Expense Tax Credit allows for eligible medical expenses to be combined when filling. We expect fiscal cost estimates to increase if other eligible medical expenses are included with psychiatric service dog costs, but do not account for that here.

Previous to this budget measure, demand for psychiatric service dogs has been high with wait times of 2 to 3 years for some organizations. With the announcement of this budget measure, there may be incentive to increase the supply of psychiatric service dogs, which will lead to additional beneficiaries claiming medical expenses and could ultimately lead to a rise in fiscal costs.

The majority of organizations specialized in training service dogs are registered charities. As such, purchasing costs to beneficiaries are offset by donations and other charitable contributions. For those organizations that do charge purchase fees, an increase in the price of acquiring a service dog will ultimately result in increased fiscal costs.

[1] Source: Canada Revenue Agency
[2] This wait time was determined in consultation with stakeholders.
[3] Determined in consultation with stakeholders.
[4] Source: The Calgary Humane Society's Pet Budget was used as a baseline. Cost adjustments were made after consultations with stakeholders. https://www.calgaryhumane.ca/adopt/pet-calculators/
[5] PBO estimated claimant`s income growth using SPSD/M v. 26.0.
[6] PBO assumed that expenses would grow in line with CPI.

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

Budget 2018 Initiatives

Title: Increase in Tobacco Excise Taxes

Lead analyst:	Jason Jacques; jason.jacques@parl.gc.ca
Work stream:	Excise Taxes
Description:	Beginning on April 1, 2019, Budget 2018 proposes to implement annual inflationary increases for tobacco excise taxes, rather than every five years. Beginning February 28, 2018, excise taxes on tobacco products will increase from: • $0.53900 to $0.59634 per 5 cigarettes; • $0.10780 to $0.11927 per tobacco stick; • $6.73750 to $7.45425 per 50 grams of manufactured tobacco; and; • $23.46235 per 1,000 cigars, plus the greater of $0.08434 per cigar and 84% of the sale price or duty-paid value to $25.95832 per 1,000 cigars, plus the greater of $0.09331 per cigar and 88% of the sale price or duty-paid value.

Summary

$millions		2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Static cost	Cash	-30	-340	-410	-485	-560	-635
Behavioural impact		+5	+30	+40	+50	+60	+70
Total cost/revenue (gross)		-25	-310	-370	-435	-500	-565
Less revenues in existing framework[1]		-	-	+45	+250	+250	+250
Total cost (net)		**-25**	**-310**	**-335**	**-185**	**-250**	**-315**
Budget 2018 estimate		-30	-375	-350	-165	-240	-310

Notes: All costs are rounded to the nearest $5 million. Negative numbers are revenues, positive numbers are costs.

[1]See Section 5 for a description.

1. Background

The Government of Canada imposes excise taxes on tobacco products, which both raise revenue and discourage consumption.

2. The tax base (revenue measures)

In 2016, over 28.6 billion cigarettes were consumed in Canada, which accounted for roughly 95% of the total federal excise tax revenues collected on tobacco products. [1]

Since 2001, consumption of cigarettes has declined at an average rate of approximately 2% per annum. This, in turn, decreases the tax base.

3. Estimating the pre-behavioural yield/cost

The tax base for cigarette consumption is taken from the Government of Canada. [2] Cigarette consumption is projected forward using the average growth rate between 2002 and 2013 (the longest and most recent period in which the federal government did not change federal excise taxes on tobacco).

The excise taxes on cigarettes are taken from the legislated rates posted by the Government of Canada.

The total projected revenue yield is grossed-up using the historical ratio of cigarette excise tax revenues to total tobacco excise tax revenues (approximately 95%). [3]

The nominal revenue amount in 2017-18 reflects that the new tobacco excise taxes were introduced at the end of February 2018, and therefore in effect for only one month during this fiscal year.

$millions	**2017-18**	**2018-19**	**2019-20**	**2020-21**	**2021-22**	**2022-23**
Cash	-30	-340	-410	-485	-560	-635

4. Estimating the post-behavioural yield/cost

As noted in Budget 2018, "tobacco taxation is recognized as one of the most effective policy instruments to reduce smoking prevalence and reduce youth uptake of tobacco products". [4] The responsiveness of consumers to price changes in tobacco products in developed countries (that is, the "price elasticity") has been estimated to range between -0.30 and -0.45. This means that a 10% increase in the price of tobacco products could result in a decrease in consumption of between 3.0% and 4.5%.[5] PBO assumes a price elasticity of -0.30.

Given the foregoing, it is expected that the behavioural response of tobacco consumers (via both reducing smoking incidence and frequency) will significantly offset estimated static revenue gains.

$millions	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Behavioural Impact	+5	+30	+40	+50	+60	+70

5. Key points for consideration

In Budget 2014, the Government legislated an inflation escalator for the excise tax on tobacco products. This escalator, based on the increase in the consumer price index, would be implemented every five years. The first planned increase was to be on December 1, 2019.

These revenues would have been already accounted for in the fiscal framework, but are now superseded by the changes announced in Budget 2018. Hence, these planned revenues offset the projected revenue increase arising from the new planned excise tax increases.

The methodology used to generate these estimates is based on the approach outlined in sections 3 and 4.

$millions	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Revenue Offsets	-	-	+45	+250	+250	+250

[1] Time series on cigarette consumption is located here: https://www.canada.ca/en/health-canada/services/publications/healthy-living/federal-provincial-territorial-tobacco-sales-data/page-2.html. Data on federal excise tax revenues are presented in Volume II of the Public Accounts of Canada for each respective year.
[2] Ibid.
[3] Public Accounts of Canada. Government of Canada. https://www.tpsgc-pwgsc.gc.ca/recgen/cpc-pac/index-eng.html
[4] Budget 2018. Government of Canada. https://www.budget.gc.ca/2018/docs/tm-mf/tax-measures-mesures-fiscales-2018-en.pdf
[5] *Modelling the impact of raising tobacco taxes on public health and finance*. Goodchild et al. (2016). Bulletin of the World Health Organization 2016;94:250–257. http://www.who.int/bulletin/volumes/94/4/15-164707.pdf?ua=1. Effectiveness of Tax and Price Policies for Tobacco Control. [Chapter 4: Tax, Price and Aggregate Demand for Tobacco Products]. World Health Organization. http://www.iarc.fr/en/publications/pdfs-online/prev/handbook14/handbook14-4.pdf. *Estimating price elasticities when there is smuggling: the sensitivity of smoking to price in Canada*. Gruber et al. (2003). Journal of Health Economics 22 (2003) 821–842. https://economics.mit.edu/files/115.

PBO | Fiscal analysis

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

Budget 2018 Initiatives

Title: Legalization of Recreational Cannabis and Imposition of Excise Taxes

Lead analyst:	Jason Jacques; jason.jacques@parl.gc.ca
Work stream:	Excise Taxes
Description:	Budget 2018 proposes an excise tax framework for the pending legalization of recreational cannabis. More specifically, the Government of Canada would impose an excise tax of $1, with a 25/75 federal/subnational split. The federal share is equal to: • $0.25 per gram of cannabis flowers; • $0.075 per gram of cannabis trim; • $0.25 for each cannabis seed; and; • $0.25 for each cannabis seedling. Budget 2018 does not specify the date of imposition.

Summary

$millions		2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Static cost	Cash	-	-50	-100	-195	-315	-335
Behavioural impact		-		-	+70	+155	+160
Total cost/revenue (gross)		-	-50	-100	-125	-160	-175
Total cost/revenue (net)		**-**	**-50**	**-100**	**-125**	**-160**	**-175**
Budget 2018 estimate		-	-35	-100	-135	-200	-220

Notes: All costs are rounded to the nearest $5 million. Negative numbers are revenues, positive numbers are costs. The Government of Canada has imposed a federal revenue cap of $100 million for the first 24 months following legalization of recreational cannabis.

1. Background

Beginning in 2018, the Government will legalize the sale and consumption of cannabis plant material. Individuals will also be able to grow up to four cannabis plants for their own personal consumption.

The Government has committed to legalizing other cannabis products, such as edibles, for sale and consumption within one-year following the legalization of recreational consumption of cannabis plant material.

Budget 2018 introduces an excise tax framework on cannabis plant materials.

2. The tax base (revenue measures)

In 2017, it is estimated that Canadians consumed over 770 tonnes of cannabis plant product. Legal consumption of medical marijuana was a very small proportion of this total (estimated to be 3%). [1]

Since 2010, consumption of cannabis has grown at an average annual rate of 4.0%. This, in turn, increases the tax base.

PBO assumes that the retail sale of other cannabis products, such as edibles, oils and ointments, will be legalized within 12 months following legalization of cannabis plant sales and consumption. This, in turn, is also expected to increase the tax base.

3. Estimating the pre-behavioural yield/cost

Cannabis consumption of plant material is projected using the moving average of the growth rate over the preceding seven years.

PBO was unable to find data segregating the total estimated consumption into the four specific cannabis product categories identified in the proposed excise tax framework. As such, PBO assumed that the excise tax rates for cannabis flowers would apply to total estimated plant consumption. [2]

The nominal revenue amounts in 2017-18 and 2018-19 reflect PBO's assumption that legalization will occur on October 1, 2018.

The Government of Canada has also committed that for the first two years following legalization, its total annual revenues are capped at $100 million. This cap reduces federal excise tax revenues in 2018-19, 2019-20 and the first half of 2020-21.

PBO assumes that retail sales of other cannabis-related products will be legalized on October 1, 2019. The market size for these products is assumed to be equivalent to the average ratio of cannabis plant products to cannabis non-plant products sold in Washington State from 2015 to 2017. [3]

$millions	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Cash	-	-50	-100	-195	-315	-335

4. Estimating the post-behavioural yield/cost

As noted by PBO, the shift of consumers from the illicit to retail market is highly dependent on relative consumer prices. [4] Data also indicate that the majority of current Canadian cannabis consumption is attributable to very frequent (daily) users who are also likely to be the most price sensitive. [5]

Pending legislation also provides that individuals may grow up to four cannabis plants for personal use. This sanctioning of personal production will serve to offset retail market sales.

Given the decision by some provincial governments, particularly those in eastern Canada, to implement a less extensive retail distribution network compared to U.S. states, this will also hinder the shift from the illicit to retail market.[6]

As such, we assume that the reported licit market value for cannabis products will be only half of total plant consumption.[7]

It is expected that the behavioural response of cannabis consumers will partially offset estimated static revenue gains toward the end of the medium-term. Note that the absence of an offset in 2018-19 and 2020-21 is attributable to the $100 million revenue cap on federal revenues.

$millions	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Behavioural Impact	-	-	-	+70	+155	+160

5. Key points for consideration

The foregoing revenue estimate is sensitive to several key assumptions, including:

- Consumption patterns of Canada and U.S. jurisdictions that have already legalized are comparable.
- Saturation of retail stores so legal recreational cannabis is as easily accessible as illicit substitutes;
- There will be no persistent issues of lack of supply due to delays in production licences.

The Government of Canada has indicated that the current medical cannabis regime will be unchanged for the intervening five years. Following this, it will be subject to a review. PBO assumes that the total amount of sales through the medical channel will remain stable over the medium-term. Medical consumption of cannabis is implicitly included in the PBO assumptions regarding retail/illicit market shares.

[1] Cannabis consumption time series is located at: http://www.statcan.gc.ca/pub/13-610-x/cannabis-eng.htm. Estimates of medical marijuana consumption are sourced from: http://www.pbo-dpb.gc.ca/web/default/files/Documents/Reports/2016/Legalized%20Cannabis/Legalized%20Canabis%20Fiscal%20Considerations_EN.pdf

[2] Excise tax rates are located: https://www.budget.gc.ca/2018/docs/tm-mf/tax-measures-mesures-fiscales-2018-en.pdf

[3] Washington State data: https://data.lcb.wa.gov/stories/s/WSLCB-Marijuana-Dashboard/hbnp-ia6v/

[4] In Legalized Cannabis Fiscal Considerations. http://www.pbo-dpb.gc.ca/web/default/files/Documents/Reports/2016/Legalized%20Cannabis/Legalized%20Canabis%20Fiscal%20Considerations_EN.pdf

[5] Ibid.

[6] Washington (7.5 million people) and Colorado (5.6 million people) have 523 locations (March 2018) 831 unique medical center/retail store addresses (March 2018). In comparison, Ontario (14.2 million people) and Quebec (8.2 million) plan to have 40 stores (2018)/150 stores (2020) and 20 stores (2018)/100 stores (2021), respectively.

[7] Ibid

PBO | Fiscal analysis

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

Budget 2018 Initiatives

Title: Deductibility of employee contributions to the enhanced portion of the Quebec Pension Plan

Lead analyst:	Scott Cameron; scott.camerson@parl.gc.ca
Work stream:	Personal income tax
Description:	Provides a tax deduction for employee contributions and the employee share of contributions by self-employed persons

Summary

$millions	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Static	-	5	20	35	60	90
Total cost	**-**	**5**	**20**	**35**	**60**	**90**
Budget 2018 estimate	-	5	20	35	60	90

Notes: All costs are rounded to the nearest $5 million. Positive numbers subtract from net worth, negative numbers add to net worth.

1. Background

To provide consistent income tax treatment of Canada Pension Plan (CPP) and Quebec Pension Plan (QPP) contributions, Budget 2018 amends the Income Tax Act to provide a deduction for employee contributions (as well as the "employee" share of contributions made by self-employed persons) to the enhanced portion of the QPP for Quebec income tax purposes.

2. Estimating and forecasting the cost/ yield with no change in activity

The cost estimate was prepared using PBO's CPP/QPP model described most recently in FSR 2017.

3. Key points for consideration

Estimating the post-behavioural cost/yield

Due to the complexity of the labour response and lack of existing peer reviewed studies, PBO was prevented from quantitatively estimating the impact of the policy on individual behaviour. It is difficult to assign either a sign or magnitude. A qualitative consideration:

- Because the contributions are being returned to the employee in the future on an actuarially sound basis, the cost to government of changes in labour supply, consumption, and savings behaviour is likely to be within the $5 million rounding convention.

Estimating administration costs

Because the measure is an extension of coverage of an existing policy, administration systems are well established. The new program is unlikely to place additional burden on tax processing and would have negligible administration costs.

PBO | Fiscal analysis

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

Budget 2018 Initiatives

Title: Foreign-born Status Indians and the Canada Child Benefit

Lead analyst:	Mark Mahabir mark.mahabir@parl.gc.ca
Work stream:	Personal Income Tax
Description:	Foreign born Status Indians who are not Canadian citizens nor permanent residents of Canada for immigration purposes will be retroactively eligible for the Canada Child Tax Benefit, the National Child Benefit supplement and the Universal Child Care Benefit where all other eligibility requirements are met. The benefits will be retroactive to the 2005 taxation year to 20 June 2016.

Summary

$ million	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Static cost	-	5.4	-	-	-	-
Offset	-	0.04	-	-	-	-
Total cost (net)	-	**5.3**	**-**	**-**	**-**	**-**

Notes: All costs are rounded to the nearest $0.1 million.
Budget 2018 reported nil or an amount less than $500,000.

1. Background

The current Canada Child Benefit (CCB) in the *Income Tax Act* permits foreign-born status Indians residing in Canada to claim benefits under the program where other eligibility requirements are met. These individuals were not eligible under the previous Canada Child Tax Benefit (CCTB), the National Child Benefit (NCB) supplement and the Universal Child Care Benefit program if they were neither Canadian citizens nor permanent residents under the *Immigration and Refugee Protection Act*.

Such individuals will be retroactively eligible for those child benefits if they live with and provide support to their child or children in an establishment located in Canada.[1]

2. The tax base (revenue measures) or eligible beneficiaries (expenses)

Eligible beneficiaries include status Indians who were: [2]

- born outside of Canada and are not Canadian citizens; **and either**
    - moved with a child (or children) under the age of 18 to Canada to live; **or**
    - supported a child (or children) under the age of 18 in the same establishment that they resided in Canada.

3. Estimating the pre-behavioural yield/cost

PBO used available statistics to estimate eligible status Indians and their retroactive benefits. Below are the key assumptions.

- External migrants stay in Canada for the 1988 to 2016 period[3]
- 10% of all status First Nations that migrated to Canada were non-Canadian citizens for the 1988 to 2016 period
- The spouse or partner of an external migrant is a status Indian and/or a Canadian citizen
- The fertility rate of migrant female Status Indians (number of children per female) = 2.7
- Migrant males were the biological father of one child resident in Canada
- Single female parents receive the NCB supplement
- Single male parents do not receive the NCB supplement since their income is above the threshold
- External migrants are under 30 years of age

Eligible Parents and Children:

Two formulas are used to calculate the number of eligible parents and the number of eligible children.

number of eligible children of eligible female parents = estimated annual migration of foreign-born status First Nations[4] * percentage external migrants that have Aboriginal Identity that are female[5] * fertility rate[6] * percentage of all First Nation children (0-4 yrs) living with a lone female that is First Nation in 2015[7]

number of eligible children of eligible male parents = estimated annual migration of foreign-born status First Nations * percentage external migrants that have Aboriginal Identity that are male * percentage of First Nation children (0-4 yrs) living with a lone male parent that is First Nation in 2015

To determine the amount of the benefit for a female parent, the total number of children born after 1988 that are generated from the first formula is multiplied by the average CCTB+NCB benefit over the 1988 to 2016 period. The UCCB for the relevant period is then added.

To determine the amount of the benefit for a male parent, the total number of children born after 1988 that are generated from the second formula is multiplied by the average CCTB benefit over the 1988 to 2016 period. The UCCB for the relevant period is then added.

$ millions	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Cash	-	5.4	-	-	-	-

4. Revenue offsets

Income tax revenue from the taxation of UCCB is based on a 15% tax rate. This offset is included in the calculation.

5. Key points for consideration

The model is based on a migration rate that may be highly variable outside of the two time points used for the estimation.

Appendix A: Calculation of the Migration Rate

The migration rate is based on the number of external migrants that were status First Nations as reported in the 2011 national census. Status Indians include status First Nations and other individuals registered under the *Indian Act*. The number of foreign-born status Indians that are not First Nations is assumed to be small.

The number of status First Nations that lived outside of Canada in 2010 and in 2006 were used to generate an average annual migration over the 2006 to 2016 period and over the 1987 to 2005 period. The number of external migrants that were status First Nations was obtained from Information Request 0306 that was made to Indian and Northern Affairs Canada. The percentage of external migrants is based on the percentage of returning Canadians from Australia which is approximately 89%.[8] For our annual migration we assume that approximately 10% of external migrants are non-Canadian citizens.

From this data an annual migration rate was generated that was used for the 2005 to 2011 period. The annual migration rate for the 2011 to 2016 was set at the same rate for 2011. For the 1987 to 2004 period the average of the annual migration for the 2005 to 2016 period was used. The male and female composition of the annual migration was obtained from the number of male and female external migrants that identified as Aboriginal in the 2011 census.

---

[1] In general, eligibility for benefits under the *Income Tax Act* is based on residency in Canada.
[2] To be eligible under the proposed changes the status Indian parent must not have married or lived in a common-law relationship with a Canadian-born status Indian or a Canadian citizen since that parent would be eligible for the child benefits.
[3] External migrant means a person who lived outside of Canada 1 or 5 years ago as indicated on the 2011 and 2016 national census.
[4] See Appendix A.
[5] Statistics Canada, 2013, *National Household Survey Aboriginal Population Profile*, 2011 National Household Survey.
[6] Statistics Canada, *Projections of the Aboriginal Population and Households in Canada*, Statistics Canada Catalogue no. 91-552-X.
[7] Statistics Canada, 2017, *Diverse family characteristics of Aboriginal children aged 0 to 4*, Census of Population, 2016, Statistics Canada Catalogue no. 98-200-X2016020.
[8] Statistics Canada, *Canadian Social Trends*, Canadians Abroad, Statistics Canada Catalogue no. 11-008-XWE.

PBO | Fiscal analysis

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

Budget 2018 Initiatives

Title: Extending Tax Support for Clean Energy

Lead analyst:	Jason Stanton jason.stanton@parl.gc.ca
Work stream:	Corporate Income Tax
Description:	Budget 2018 proposes to extend an existing accelerated capital cost allowance (CCA) for specific investments in clean energy generation and conservation equipment (class 43.2). Currently, businesses can use an accelerated capital cost allowance (CCA) rate of 50% for capital assigned to CCA class 43.2. Eligibility is currently set to expire at the end of 2019. Budget 2018 extends the eligibility to property acquired before 2025.

Summary

$millions		2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Static cost	Cash	-	-	10	40	70	75
Total cost (net)		**-**	**-**	**10**	**40**	**70**	**75**
Budget 2018 estimate		-	-	3	20	40	60

Note: All costs are rounded to the nearest $5 million.

1. Background

The Government of Canada offers businesses tax support for investment in certain clean energy generation and conservation equipment. The goal is to incentivize businesses to invest in clean energy equipment by deferring taxation and increasing after-tax income.

Currently, businesses can use an accelerated capital cost allowance (CCA) rate of 50% for capital assigned to CCA class 43.2 which is purchased prior to 2020. This includes:

- Electrical vehicle charging stations (EVCSs) set up to supply 90 kilowatts and more of continuous power. For property acquired for use after March 21, 2016 that has not been used or acquired for use before March 22, 2016. [1]

Budget 2018 seeks to extend the eligibility for businesses to benefit from the increased CCA rate by five years until 2025. If this is not extended, these assets would be considered as class 43.1, which has a CCA rate of 30%.

2. The tax base (revenue measures)

Businesses which invest in the specific clean energy generation and conservation equipment identified in CCA class 43.2 represent the tax base.

As investment in class 43.2 increases, taxable income decreases, leading to reduced tax revenues for the government.

3. Estimating the pre-behavioural yield/cost

Given this is an extension of a current tax support measure, PBO used past data from the T2 and T5013 tax forms to determine the amount corporations and partnerships spent on class 43.2 assets between 2011 and 2015. These figures were then grown by the 2014-15 growth rate, which was an estimated 6%, in order to project the amount of future class 43.2 acquisitions.[2]

Based on the projected annual investment amounts, the PBO calculated the difference in annual CCA using the 50% rate (extending the eligibility for class 43.2 after 2019), and using the 30% rate (the rate that would be used if the eligibility for class 43.2 was not extended).[3]

We then calculated the impact on taxable income using a 15% tax rate, and converted the amounts into fiscal years.[4] The total annual projected cost to the government is shown in the table below:

$ millions	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Cash			10	40	70	75

4. Key points for consideration

- The tax data did not show the percentage of acquisitions of partnerships that were taxable; therefore, an assumption was made to use the same ratio for total corporations that were taxable during the same period.

- The average growth rate for the five year period (2011-2015) was approximately 20%; however, we did not believe this was a reasonable estimate of sustainable future growth. Therefore, we used a more modest growth rate of 6%, which was the growth rate between 2014 and 2015, in order to project future investments in class 43.2.

- We did not include an estimate of the behavioural impact as this is an extension of a current policy, and should reflect the original behavioural response that would have resulted upon implementation.

[1] https://www.canada.ca/en/revenue-agency/services/tax/businesses/topics/sole-proprietorships-partnerships/report-business-income-expenses/claiming-capital-cost-allowance/classes.html
[2] The average growth rate for the five year period (2011-2015) was approximately 20%; however, the PBO did not believe this was a reasonable estimate of sustainable future growth.
[3] CCA is calculated on a declining balance method. Guidance on how to calculate CCA can be found here: https://www.canada.ca/content/dam/cra-arc/formspubs/pub/t4002/t4002-17e.pdf
[4] PBO assumes an average tax rate of 15%. Actual marginal tax rates may vary.