



The Tax-Free Savings Account

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Executive summary

The Tax-Free Savings Account (TFSA) program was started in 2009. It benefits TFSA contributors by exempting TFSA investment income from federal and provincial income tax and transfer calculations. Under current rules, the TFSA contribution room accumulates annually for individuals aged 18 and over, so PBO projects that contribution room will grow from \$1 trillion in 2015 to \$9 trillion in 2080.¹

Increases in TFSA contribution room will grow the size of the exempt tax base over time. This growth will not only increase the fiscal impact of the TFSA program as a share of federal and provincial budgets, but alter the distribution of benefits toward higher income and wealth households.

How will the TFSA affect government's bottom line?

In 2015, PBO projects the fiscal impact of the TFSA to be \$1.3 billion or 0.06 per cent of Gross Domestic Product (GDP). Two-thirds of this cost is borne by the federal government, \$860 million, while the remaining third (\$430 million) affects provinces (Figure A-1).

Figure A-1

TFSA medium-term fiscal impact

Millions of dollars

	2015	2016	2017	2018	2019	2020
Total	1,280	1,610	1,920	2,220	2,520	2,840
Federal	860	1,070	1,280	1,480	1,670	1,890
Provincial	430	540	640	740	840	950

Source: Parliamentary Budget Officer.

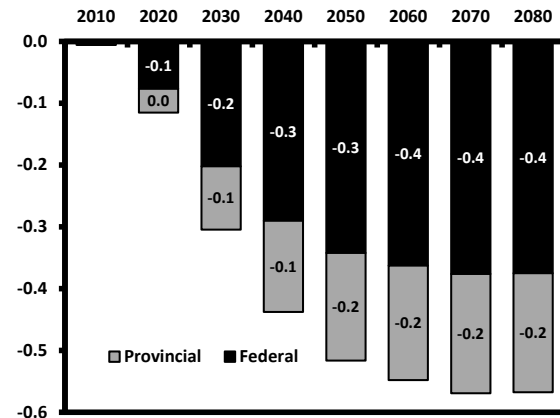
By 2080 the TFSA fiscal costs project to increase ten-fold, reaching 0.57 per cent of GDP (Figure A-2). This growth effect is unlike most program expenditures, which generally grow along with GDP and are subject to periodic parliamentary review. The TFSA, like

all tax expenditures is not subject to regular review.

Figure A-2

TFSA long-term fiscal impact

Per cent of GDP



Source: Parliamentary Budget Officer.

Who benefits?

PBO estimates that the TFSA program is regressive, overall. Benefits skew to higher income, higher wealth and older households. Low-income households' benefits range from half to one-fourth the median between 2015 and 2080.

In 2015, while the TFSA program is relatively new and a broad range of households possess the financial capability to contribute to TFSA room, benefits are relatively balanced across income groups. Current gains are balanced because low- to middle-income households benefit from a mix of TFSA tax and transfer gains.

Under current rules, the TFSA provides beneficial exemptions for not only income tax, but also federal and provincial income-tested benefits and credits. These gains have progressive outcomes, effectively balancing regressive tax outcomes in 2015.

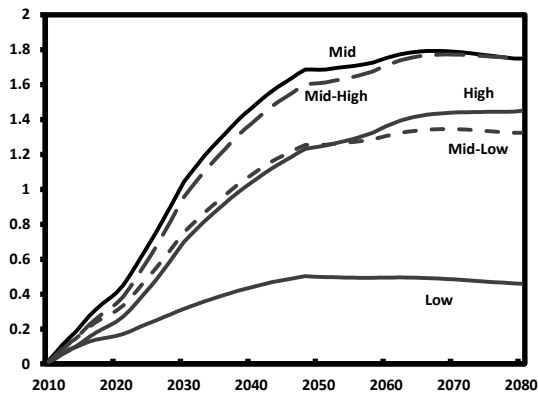
¹ Inflation-adjusted to 2015 dollars.

However, the distribution of benefits of the TFSA project to become increasingly regressive as potential contribution room grows over time. TFSA gains for low- and low-middle income households project to plateau in 2040, while PBO estimates that higher income households will benefit from continued annual increases TFSA contribution room (Figure A-3).

Figure A-3

TFSA total benefits: income groups

Per cent of after-tax income



Source: Parliamentary Budget Officer.

High income groups account for about one-third of TFSA dollar benefits in 2015, and this share will increase over time (Figure A-4).

Figure A-4

Share of TFSA benefits by income group

Per cent of total dollar benefits

	2015	2030	2045	2060	2075
Lowest	3	2	2	2	2
	12	11	11	11	11
Median	23	23	22	22	21
	28	29	28	28	28
Highest	34	36	37	38	39

Source: Parliamentary Budget Officer.

Moving beyond the perspective of family income groupings, PBO projects that the growth in TFSA contribution room should increasingly benefit two groups: older and wealthier Canadians.

Because TFSA benefits are limited in practice by contribution room thresholds, the continued threshold increases – linked to taxpayer’s age – will increase the relative benefit potential of the TFSA.

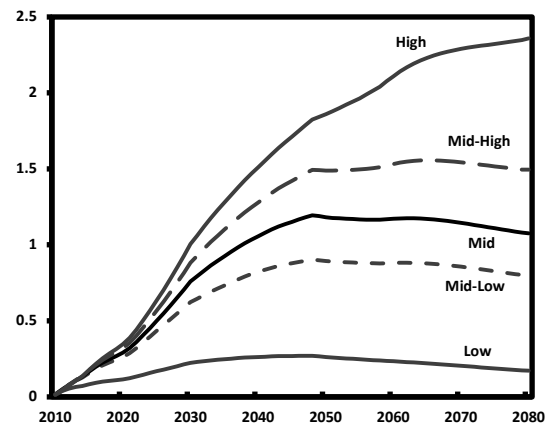
PBO estimates that higher wealth households will be able to continue contributions, but TFSA contribution room limits will soon exceed the financial asset base for most low- to middle-wealth households. Continued growth in individual limits offers no additional benefit for these groups.

Consequently, TFSA benefits, currently balanced across wealth groups will become increasingly skewed toward high wealth households over time. By 2060, gains for high wealth households project to be twice the median and ten times that of low-wealth households (Figure A-5).

Figure A-5

TFSA total benefits: wealth groups

Per cent of after-tax income



Source: Parliamentary Budget Officer.

PBO also projects that TFSA gains for each income group will be larger for older households. This is a consequence of older households typically possessing greater financial wealth than younger counterparts and age-dependant contribution limit growth over time (Figure A-6).

Figure A-6

TFSA total benefits: income and age groups

Per cent of after-tax income

		Age 45 and under				
		2015	2030	2045	2060	2075
Lowest		0.05	0.19	0.26	0.25	0.21
		0.12	0.56	0.81	0.86	0.84
Median		0.25	1.19	1.72	1.77	1.72
		0.19	0.88	1.34	1.42	1.44
Highest		0.11	0.60	1.01	1.13	1.20
Average		0.15	0.75	1.15	1.24	1.27

		Age 46 and over				
		2015	2030	2045	2060	2075
Lowest		0.16	0.38	0.60	0.62	0.60
		0.23	0.89	1.46	1.60	1.65
Median		0.21	0.94	1.55	1.74	1.79
		0.18	1.03	1.68	1.95	2.02
Highest		0.14	0.78	1.30	1.57	1.64
Average		0.17	0.86	1.41	1.63	1.70

Source: Parliamentary Budget Officer.
 Note: Calculated on a person-weighted household basis. Individuals with economic family members outside their age range may display certain savings and investment behaviours of non-age peers.

What changes if the annual TFSA contribution limit is doubled?

Under a scenario where the annual TFSA contribution increment amount is doubled, from \$5,500 at present, to \$11,000, the long-term costs of the program would increase by roughly one-third (Figure A-7).

Figure A-7

TFSA long-term additional fiscal impact: doubled limit scenario

\$ billions, nominal dollars

	2020	2030	2040	2050	2060	2070	2080
Federal	0.5	2.8	6.3	10.6	14.7	20.1	25.9
Provincial	0.2	1.4	3.2	5.4	7.6	10.3	13.4
Total	0.7	4.2	9.5	16.0	22.3	30.4	39.3

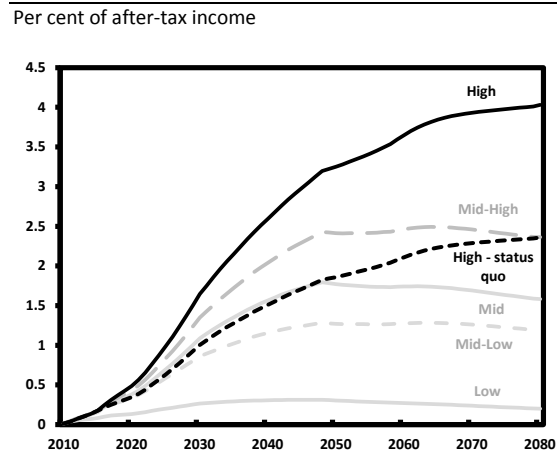
Percentage increase	2020	2030	2040	2050	2060	2070	2080
	22%	36%	39%	38%	34%	30%	26%

Source: Parliamentary Budget Officer.

The distributional outcomes would remain fairly regressive by income, but become much more regressive by household wealth. High wealth households would benefit by about 4 per cent of after tax income in 2060 (Figure A-8). This amount is roughly twice the gains under the status quo and about 10 times the relative gains of low-wealth households under the same rules.

Figure A-8

Long-term distribution of gains by household net worth: doubled limit scenario



Source: Parliamentary Budget Officer.

Box A-9

Key TFSA definitions

Contributions – the cash amount contributed to a TFSA account in any given year.

Contribution room – the maximum cumulative amount that can be contributed to an individual TFSA. Calculated as of the sum of the annual \$5,500 increase in contribution room, any unused TFSA contribution room from the previous year and any withdrawals made from the TFSA in the previous year. Earned investment income does not affect cumulative contribution room for the current or future years.

Cumulative contributions – the cumulative cash amounts contributed to a TFSA account over the lifetime of the individual, less withdrawals.

Holdings – the market value of net assets held in TFSA accounts. Represents cumulative contributions plus accumulated investment income less withdrawals.

Withdrawals – cash amounts withdrawn from TFSA.

1 Introduction

The analysis discusses the projected fiscal impacts of the TFSA program as well as the distributional impacts on households.

Unlike many other government tax, transfer or direct spending programs, under the existing TFSA rules, expenditures on the program are projected to steadily increase as a share of Gross Domestic Product (GDP) for several decades.

This report presents medium- and long-term fiscal projections to illustrate the growth dynamics of the TFSA program. It draws upon Canadian wealth survey data and is consistent with the long-term demographic and tax projections presented in the Parliamentary Budget Officer's (PBO) 2014 Fiscal Sustainability Report.^{3,4}

Impacts on individual groups of taxpayers are presented, disaggregated by income, net worth and age. As with all long-term PBO projections, calculations are subject to uncertainty but are intended to illustrate TFSA program evolution under unchanged program rules. Analysis is provided under various regulatory or economic scenarios.

2 Methods and key assumptions

The primary benefit to TFSA participants is the exemption of investment income earned on TFSA assets from both income tax and income-tested transfer calculations.

Tax benefits calculations

Income tax revenues are generally determined by the basic relationship between the tax base and the tax rate.

³ For an alternative estimate see: Milligan, K., Policy Forum: The Tax-Free Savings Account – Introduction and Simulations of Potential Revenue Costs. *Canadian Tax Journal*, 2012, 60:2, 355-360.

⁴ http://www.pbo-dpb.gc.ca/files/files/FSR_2014.pdf. Accessed December 2014.

The fiscal impact of the TFSA tax exemption is estimated by calculating the size of the exempt tax base and the approximate tax rate that otherwise would have been applied to the exempt tax base in each year (Figure 2-1).

Figure 2-1

Tax revenue, rate and base relationship

t = tax year

$$\text{Tax revenue}_t = \text{Tax Rate}_t \times \text{Taxable Base}_t$$

Source: Parliamentary Budget Officer.

The TFSA exempt tax base accumulates through individuals' TFSA contributions. But unlike most other expenditures, whose tax bases generally grow with GDP and demographics, the TFSA exempt tax base projects to steadily increase relative to GDP. This is because under the *Income Tax Act*, each individual's TFSA contribution room will grow by \$5,500 per year for each Canadian aged 18 and over.^{5,6}

Growth in the size of the exempt tax base – essentially TFSA contributions – is limited by one or more of a number of factors:⁷

- (i) **Financial wealth (net worth).** Data from Statistics Canada's Survey of Financial Security Public Use Micro-Files (SFS) is the micro basis of PBO wealth estimates. The SFS provides a detailed and statistically representative sample of household income, expenses, assets, debts and demographics. Because the SFS generally underestimates financial assets as

⁵ <http://laws.justice.gc.ca/PDF/I-3.3.pdf>. Accessed December 2014.

⁶ The annual amount by which the TFSA contribution limit is increased is indexed in order to keep pace with inflation. For the years 2009 through 2012, this amount was \$5,000. In 2013, the amount was increased to its current level of \$5,500.

⁷ In the medium-term, contributions are assumed to comprise the majority of TFSA holdings. Investment income compounds not only on invested principal, but prior investment income. Accumulated investment return is not limited, and in some cases, could far exceed contributions. All PBO estimates account for compounding rates of return, at rates specified on page 3.

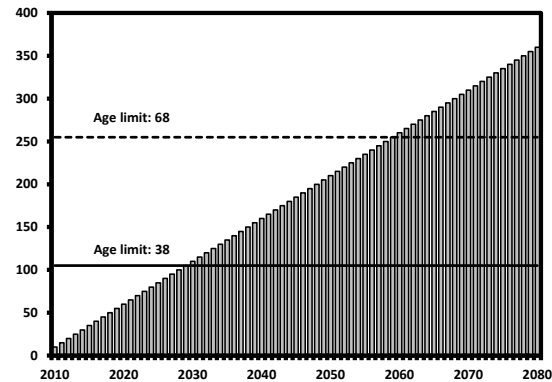
compared to the Financial and Wealth Accounts of the System of National Accounts, individual households' financial assets are uniformly scaled to national accounts aggregates.⁸ Individuals are assumed to transfer eligible taxable financial assets (such as cash, deposits, bonds, stocks and mutual funds) into TFSAs until financial wealth is exhausted, or contributions are limited by the contribution limit.

- (ii) **Time.** The TFSA was introduced in 2009. Canadians have been awarded contribution limits of \$5,000 per year. Total contribution room for most Canadians is \$36,500 in 2015. This limit will increase each year in perpetuity, indicated by the grey bars in Figure 2-2.
- (iii) **Age.** Individuals can accumulate TFSA room with each year of adulthood (18 years and over). Over time, increasingly more Canadians will have contributions limited by the age growth aspects of the TFSA rather than the time of TFSA implementation. An individual aged 38 will have \$100,000 in TFSA contribution room in 2060, while an otherwise equivalent person aged 68 will have \$250,000 in room (Figure 2-2).⁹
- (iv) **Participation.** Despite a preferential tax treatment, high liquidity and a relatively low compliance burden, some individuals are not expected to participate in the TFSA program. This phenomenon is observed in recent TFSA tax filings, long-term Registered Retirement Savings Plan (RRSP) trends and the experiences in other jurisdictions.

Figure 2-2

TFSA contribution room per person

Thousands of dollars, indexed to 2009



Source: Parliamentary Budget Officer.

Note: Figure 2-2 illustrates that a 38 year-old in 2009 has \$5,000 in TFSA contribution room, a 38 year-old in 2029 will have \$100,000 and a 38 year-old in 2049 will have \$100,000 (all figures indexed to 2009).

PBO estimates the long-term trends in the TFSA exempt tax base considering these factors and a number of key assumptions.

Assumption #1 – Investment returns and asset composition

As presented in Figure 2-1, estimated tax revenues foregone can be estimated using the tax rate and the tax base. In Canada, the tax base on savings and investment is investment income, an annual flow.¹⁰ The flow of investment income in a given tax year equals the percentage rate of return on investment multiplied by the market value of invested assets (Figure 2-3).

⁸ <http://www23.statcan.gc.ca/imdb/p2SV.pl?Function=getSurvey&lang=en&db=imdb&adm=8&dis=2&SDDS=2620>. Accessed December 2014.

⁹ Indexed to 2009.

¹⁰ Tax rates vary depending on the type of investment income: interest, dividends and capital gains. A similar fiscal impact estimation approach can be taken for each type of investment income.

Figure 2-3
Investment income, rate of return and invested assets relationship

t = tax year

$$\text{Tax base}_t = \text{Investment Income}_t = \text{Rate of Return}_t \times \text{Investment Assets}_{t-1}$$

Source: Parliamentary Budget Officer.

To estimate the value of the annual tax exemption, it is necessary to estimate the annual investment return on the assets held within TFSA accounts.

Despite the close relation between investment assets and investment income, no single publicly available data source provides a comprehensive and detailed depiction of more than one of the variables listed in Figure 2-3.

Investment income for a given year is observable based on T1 filings to the Canada Revenue Agency (CRA). However, these filings describe neither the rate of return nor the value of invested assets. This is problematic for the analytical purposes of this report because the tax exemption on TFSAs is governed by the size of cumulative contributions, an unobserved stock (or accumulation of annual flows). The CRA publishes aggregate TFSA financial data obtained through TFSA tax filings, but the information is not available at the micro-level required for detailed TFSA fiscal and distributional analysis.

Rather, PBO uses wealth data from the Survey of Financial Security and assumes that long-term investment returns of TFSA portfolios are consistent with projections for the Canada Pension Plan (Figure 2-4).

Return projections are based on the Bank of Canada’s estimate of the neutral rate of interest and asset class return premiums estimated by the Office of the Chief Actuary of Canada for the Canada Pension Plan.^{11,12}

Figure 2-4
Investment returns assumptions

Per cent per annum

	Marketable Bonds	Short-term investments	Stocks & Mutual Funds
Neutral Rate of Interest	3.5%	3.5%	3.5%
plus: term/risk premium	0	-0.9%	2.2%
less: expenses	0.4%	0%	0.8%
Net Annual Rate of Return	3.1%	2.6%	4.9%

Sources: Parliamentary Budget Officer; Office of the Chief Actuary of Canada; Bank of Canada.

Note: Nominal figures are determined by summing real returns assumptions provided by the Chief Actuary plus the PBO’s long-term inflation projection, less expenses.

Total financial assets are assumed to grow in line with nominal GDP, except for demographic considerations (Figure 2-5). The life cycle age effects of wealth are accounted for using Statistics Canada’s long-term population projection and age-wealth cohort data from the Survey of Financial Security. The allocation of financial assets at the household level depends on demographic and economic characteristics, including the composition of investment portfolios.

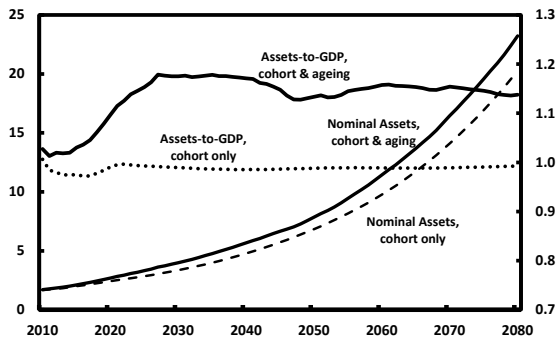
¹¹ <http://www.bankofcanada.ca/wp-content/uploads/2014/09/dp2014-5.pdf>. Accessed January 2015.

¹² <http://www.osfi-bsif.gc.ca/eng/oca-bac/ar-ra/cpp-rcp/pages/cpp26.aspx#Toc-tbl23>. Accessed August 2014.

Figure 2-5

Projected household financial assets

Financial assets, billions of dollars (LHS)
Assets-to-GDP, Growth Index: year 2008=1 (RHS)



Sources: Parliamentary Budget Officer; Survey of Financial Security, System of National Accounts.

The split of dividend, interest and capital gain returns are weighted for each household and respective asset class according to CRA T1 statistics, SPSP/M and the Survey of Financial Security. 20 per cent of capital gains are assumed to be realized each year.¹³

The accuracy of the investment returns assumptions are particularly critical over the long-term horizon, where fiscal costs are sensitive to compounded investment returns. Sensitivity analysis is provided in section 5 of this report.

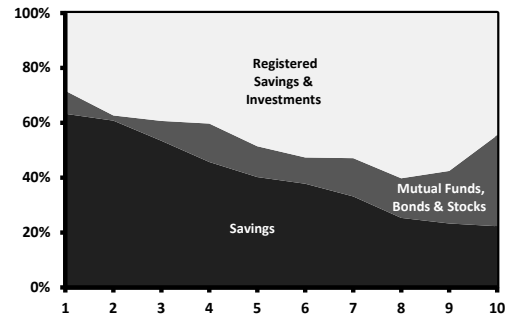
Investment portfolio composition varies by household, so estimating rates of return on segmented asset classes permits a more precise long-term estimate of the tax and transfer benefits of the TFSA. For each household estimated in this report, TFSA portfolio composition is assumed to be identical to those observed in non-registered investment accounts of the Survey of Financial Security.

¹³ For assets invested at time t, cumulative realized capital gains converges to 1 as time approaches infinity. Capital gains realization follows the formula: $1 - (1 - \text{realization rate})^{t-1}$.

Figure 2-6

Household balance sheet: composition by net worth

Per cent of total financial assets



Sources: Parliamentary Budget Officer; Statistics Canada Survey of Financial Security.

Generally, wealthy households have a greater proportion of their financial assets invested in stocks, bonds and mutual funds, and relatively less in cash and bank deposits. This results in higher average rates of return on investment for higher net worth households (Figure 2-7).

Figure 2-7

Expected return on TFSA assets, by household net worth

Percentage annual return

Wealth Group	Expected Return
10	1.0%
20	0.2%
30	0.9%
40	1.9%
50	1.8%
60	1.6%
70	2.1%
80	2.8%
90	3.2%
100	4.5%

Sources: Parliamentary Budget Officer; Statistics Canada Survey of Financial Security; Office of the Chief Actuary of Canada.

Assumption #2 – Utilization rates

Generally, PBO assumes that households transfer taxable investment assets into tax exempt TFSA accounts until constrained by TFSA regulations or until available financial assets are exhausted. Under perfect rationality, all households would maximize TFSA tax and transfer gains net of opportunity costs (e.g. the time and effort required to understand and register for the TFSA program, any potential additional liquidity in excess of taxable accounts).

However, given Canada’s first six years of TFSA program administration and experiences with the other large tax preferred program for investment (the RRSP program), not all eligible households will participate in the TFSA, and not all participants will maximize contributions.^{14,15,16}

Potential reasons for this behaviour may include a lack of awareness of the tax-preferred accounts, misunderstanding with respect to eligibility or unwillingness to participate. Third-party research corroborates that segments of eligible participants are unfamiliar with aspects of the TFSA, in general.¹⁷

From a fiscal perspective, when eligible individuals underutilize the TFSA contribution room, it will decrease the fiscal impact of the program, and should be accounted for in best-practice cost projections.

Statistics Canada data suggests that not all eligible individuals fully utilize tax-preferred

¹⁴ CANSIM Tables 111-0039 and 111-0040. [http://www5.statcan.gc.ca/olc-olc.action?objId=17C0011&objType=22&lang=en&limit=0](http://www5.statcan.gc.ca/olc-olc/action?objId=17C0011&objType=22&lang=en&limit=0).

¹⁵ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/348071/Full_Statistics_Release_August_2014.pdf. Accessed December 2014.

¹⁶ <http://www.cra-arc.gc.ca/gncy/stts/tfsa-celi/2012/menu-eng.html>. Accessed December 2014.

¹⁷ <http://newsroom.bmo.com/press-releases/bmo-annual-tfsa-report-tfsa-adoption-among-canadi-tsx-bmo-201312190918655001>.

accounts.¹⁸ Approximately 58 per cent of households hold RRSP or Registered Retirement Income Fund (RRIF) accounts with a positive net market value. Many of the individuals with registered accounts hold some portion of their invested financial wealth in taxable investment or savings accounts. On average, of the RRSP holding population, 70 per cent of total invested wealth (not including bank deposits) is held within registered accounts.

Figure 2-8

RRSP utilization

Per cent of population

Individual Total Income	P(RRSP and/or RRIF > 0)	Registered \$ / Total Investment \$ if RRSP and/or RRIF > 0
\$0-20,000	26%	73%
\$20-40,000	54%	69%
\$40-60,000	68%	78%
\$60-80,000	81%	63%
\$80,000 and up	90%	65%
All	58%	70%

Sources: Parliamentary Budget Officer; CANSIM Tables 111-0039 and 111-0040.

A long-term utilization rate for the TFSA is not observable at this time and requires an assumption. PBO assumes long-term TFSA utilization rates based on observed recent TFSA usage, RRSP usage by income and age, and observed utilization rates in other jurisdictions with tax exempt savings accounts. RRSP utilization rates are assumed to be a good proxy of longer term TFSA utilization because the permissible investments for a TFSA are generally the same as those permitted for RRSPs, and the net tax advantages are similar for most individuals. This ratio applies to all asset classes, including bank deposits.¹⁹

¹⁸ Survey of Financial Security and CANSIM Tables 111-0039 and 111-0040.

¹⁹ Eligible TFSA investments include: cash; mutual funds; securities listed on a designated stock exchange; guaranteed investment certificates (GICs); bonds; and certain shares of small

There are, however, key differences between the TFSA and RRSP that could influence take-up rates.

The tax treatment at the time of contribution and withdrawal differs for each program, and relative gains are subject to the respective marginal effective tax rates applying at the time of contribution and withdrawal. Tax prepayment (i.e. TFSA) is beneficial to those anticipating rising marginal effective tax rates over time, while tax deferral (i.e. RRSP) is preferable for individuals expecting to pay lower tax rates in the future.

The TFSA has direct and immediate tax benefits, with relatively straightforward tax treatment on contributions and withdrawals.²⁰ This difference is not projected to affect the aggregate propensity to use either tax-preferred program, although it will certainly influence choice for certain individuals.

In addition, as compared to RRSPs, withdrawals from a TFSA have a more liquid tax treatment than RRSP earnings (which carry deferred tax liabilities). The liquidity benefit could lead to higher relative TFSA participation rates in the long-term.

PBO's utilization assumptions are corroborated wherever possible by data from other jurisdictions and observed participation rates for the TFSA program through 2013 (Figure 2-9).^{21,22}

business corporations. <http://www.cra-arc.gc.ca/E/pub/tg/rc4466/rc4466-e.html>. Accessed July 2014.

²⁰ For some, the TFSA offers additional indirect benefits by decreasing their personal taxable income evaluated in income-tested programs such as the Canada Child Tax Benefit, the GST credit, the Age Credit, Old Age Security and Guaranteed Income Supplement benefits.

²¹ See Annex A for a more detailed discussion of international comparators.

²² <http://www.statcan.gc.ca/pub/75-001-x/2008102/article/10520-eng.htm>. Accessed December 2014.

Figure 2-9

Long-term TFSA utilization rate assumptions

Per cent of population

Income group (dollars 000s)	Age group			
	18-25	26-45	46-65	66+
0-20	23%	29%	26%	13%
20-40	54%	59%	53%	37%
40-60	71%	84%	72%	50%
60-80	82%	89%	86%	66%
80+	89%	93%	93%	82%

Source: Parliamentary Budget Officer.

Data from other countries with tax-exempt accounts similar to the TFSA, namely the United Kingdom and the United States, show that not all eligible individuals contribute to tax-exempt accounts, even when liquid financial assets are available to contribute.^{23,24}

Fiscal and distributional impacts are sensitive to PBO's utilization assumption, so sensitivity analysis is provided on p. 22.

Assumption #3 – Tax rates

The marginal effective tax rates on investment income are estimated at both the federal and provincial levels for the 2014 tax year. PBO uses the Statistics Canada Social Policy Micro-Simulation Model and Database (SPSD/M) to estimate marginal effective rates on household dividend, interest and capital gain incomes for a range of income groups.²⁵ Rates are applied to households based on their reported incomes in the Survey of Financial Security. The respective tax rates, when applied in aggregate to investment income earned in TFSA's, constitute the revenues foregone on otherwise taxable investment income. The

²³ See Annex A for a more detailed description of international comparators.

²⁴ Donnelly, M. and A. Young. Policy Forum: Tax-Free Savings Accounts – A Cautionary Tale from the UK Experience. *Canadian Tax Journal*, 2012, 60:2, 361 – 374.

²⁵ Marginal increase/decreases in taxable income were made to interest and other investment income, rather than dividends. Due to the dividend tax credits, the effective rates on dividends are somewhat lower than interest income, but this treatment is not projected to materially affect the estimates provided in this report.

rates for each income group estimated for the 2014 tax year are assumed to remain constant for that group over time.²⁶

Assumption #4 – Induced behaviour and sources of contributions

PBO assumes that individuals do not convert current consumption, RRSP or non-financial wealth into TFSA eligible assets in response to the TFSA. The entire domain of potential TFSA contributions is estimated as existing and future taxable financial wealth.

A stated objective of the TFSA program is to encourage increased savings.²⁷ It would follow that individuals not only shift taxable financial assets from taxable accounts to TFSAs, but also increase savings rates (decrease current and future consumption) in response to TFSA incentives. Any induced savings behaviour would not only affect the fiscal impact, but potentially shift the distributional effects of the tax expenditure.

A great deal of empirical economic research has explored the effect of public policy, particularly tax rates, on individuals' propensity to save. Conclusions are mixed.

The Organisation for Economic Co-operation and Development (OECD) concluded in an international review of tax-preferred accounts that new savings can be induced through tax treatment.²⁸ The effect is most pronounced for middle-income individuals and least for low-income earners, though the study

acknowledged that most tax-preferred accounts are used by high income individuals.

Conversely, Bernheim conducted a similar international review on the behavioural effects of taxation on savings in 2002, concluding that "despite voluminous literature on taxation and saving, little consensus has been achieved".²⁹

This conclusion referred to a cross section of studies in several developed economies, but is consistent with generally mixed results of applied research in the Canadian context. Most research on savings and tax policy in Canada has focused on the RRSP program, in existence since 1957.

The impact of tax policy on savings behaviour in the Canadian-specific context is also ambiguous. Carroll and Summers concluded that public policy has historically had an effect on savings behaviour while Milligan found that "marginal tax rates do influence the RRSP participation decision, but that this influence is relatively small".^{30,31} Conversely, Burbidge et al. determined that the tax treatment of the RRSP program could not explain differences in savings rates between the United States and Canada.³²

In his extensive review, Bernheim concluded that the overall body of research in savings and taxation generally showed that "the interest elasticity of saving is low and households do not alter their behaviour very much as a direct consequence of targeted tax incentives for

²⁶ Given Canada's progressive income tax rate structure, real income growth tends to push incomes into higher tax brackets over time. This would increase marginal effective rates for Canadians, on average. PBO assumes that marginal effective rates are held constant for each income group over time, irrespective of growth in other income sources. This approach is broadly consistent with PBO's Fiscal Sustainability Report.

²⁷ Budget 2009.

²⁸ Organisation for Economic Co-operation and Development. Encouraging Savings through Tax-Preferred Accounts. <http://browse.oecdbookshop.org/oecd/pdfs/product/2307021e.pdf>. Accessed December 2014.

²⁹ Bernheim, B.D. Taxation and Saving. Handbook of Public Economics, 2002, Edition 1, 3(18).

³⁰ Carroll, C and L.H. Summers. Why Have Private Saving Rates in the United States and Canada Diverged? Journal of Monetary Economics, Vol. 20, No. 2, pp. 249-279, (September 1987). <http://www.nber.org/papers/w2319.pdf>.

³¹ Milligan, Kevin. "Tax-Preferred Savings Accounts and Marginal Tax Rates: Evidence on RRSP Participation." Canadian Journal of Economics 35 No. 3 (August, 2002): 436-456.

³² Burbidge, J., D. Fretz and M.R. Veall. Canadian and American Saving Rates and the Role of RRSPs. Canadian Public Policy, 24(2), 1998. <http://qed.econ.queensu.ca/pub/cpp/June1998/Burb.pdf>.

saving.”³³ Consequently, PBO assumes in this report that the tax status of the TFSA does not induce additional savings. Individuals’ TFSA contributions in the estimates of this report result solely from savings redirected from taxable investment and savings accounts to tax-preferred TFSAs.³⁴

Furthermore, due to the similarity in net present value tax gains under the TFSA and RRSP, the PBO does not attempt to model the fiscal impact of savings transferred between RRSP accounts and TFSAs. For individuals with a strong liquidity preference or predictably rising marginal effective tax rates, TFSA accounts may be preferred to RRSPs, leading to diversion of savings and investment between accounts. However, both programs offer tax-preferred status and the report assumes no net fiscal impact from the exchange of assets between the two programs.³⁵

In summary, PBO assumes that individuals do not convert consumption, RRSP or non-financial wealth into TFSA eligible assets in response to the TFSA. The entire domain of potential TFSA contributions is estimated as existing and future taxable financial wealth.

Assumption #5 – Tax unit

This report examines income, savings and wealth impacts on an economic family, rather than individual basis. While TFSA rules apply to individuals, spouses or common-law partners can each hold a TFSA account. Funds can be given to a spouse or common-law partner for

them to invest in their TFSA and TFSA assets can also generally be transferred to a spouse or common-law partner upon death.³⁶ For these reasons, the PBO considers the economic family, rather than individual level most credible for TFSA financial analysis. This level of analysis is identical to that of the Survey of Financial Security.

Transfer benefits calculations

The TFSA exemption not only affects taxes payable, but income tested transfers and benefits.³⁷ Almost all TFSA participants benefit from owing lower federal and provincial income tax and this amount represents the majority of the total fiscal cost of the program.

However, about one-third of total fiscal costs accumulate through the secondary benefits the TFSA offers via income-tested transfers such as Old Age Security (OAS), the Guaranteed Income Supplement (GIS), Employment Insurance (EI) or other federal and provincial benefits and credits. Because of the tax pre-payment design of the TFSA, and unlike almost all other forms of income, withdrawals of investment income or principal from a TFSA are not included in the income test calculation on federal and provincial benefits and credits. Depending on an individual’s circumstances, this effect may reduce or eliminate GIS or OAS clawbacks. For many older, low-income Canadians, the TFSA gains on transfers like the GIS can be equal to, or larger than income tax savings.

PBO estimates the indirect benefits by measuring the sensitivity of all federal and provincial transfers and taxes to changes in investment income. The investment income elasticities for federal income tax, provincial income tax and all federal and provincial transfer benefits are computed in the Statistics Canada Social Policy Microsimulation Model

³³ Bernheim, B.D. Taxation and Saving. *Handbook of Public Economics*, 2002, Edition 1, Volume 3, Chapter 18.

³⁴ Some savings may also be diverted from RRSP to TFSA accounts, particularly for individuals with a strong liquidity preference. However, both programs offer tax preferred status and the report assumes no net fiscal impact.

³⁵ From the federal fiscal perspective, the government will be indifferent to tax expenditure in the TFSA and RRSP if rates of return realized by households are equal to the rate on federal interest bearing debt. However, if households realize returns above (below) the government’s effective interest rate on debt, RRSPs will have a smaller (larger) present-value fiscal cost than TFSA, all else equal. This potential fiscal effect is not estimated or included in this report.

³⁶ <http://www.cra-arc.gc.ca/E/pub/tg/rc4466/rc4466-13-11e.pdf>

³⁷ See Annex B for a discussion of the transfer programs most affected.

and Database (SPSD/M). The tax-to-transfer gain relationship was estimated for various household incomes and ages. These elasticity rates were applied to income tax benefits estimates generated in the PBO TFSA model founded upon the Statistics Canada Survey of Financial Security Public Use Micro File.

3 Fiscal impacts

The primary benefit of a TFSA is that contributors can earn investment income on contributions held within their account tax-free. The TFSA generates a fiscal impact to government through: (i) revenues foregone, measured as the federal and provincial tax that otherwise would have accrued on income earned in TFSAs if assets were held in an ordinary taxable savings or investment account and (ii) additional benefits paid, measured as the additional federal and provincial transfers paid because income earned in TFSAs is exempted from transfer income test calculations.

In 2015, the estimated total fiscal impact of the TFSA is \$1.3 billion. This cost is shared by the provincial governments harmonized to the federal definition of taxable income. The 2015 federal fiscal impact of the TFSA is about two-thirds of the total, or \$860 million. The remaining one-third of the fiscal impact, \$430 million, is borne by the provinces (Figure 3-1).

The TFSA exempt tax base is projected to grow, as is the fiscal cost to governments – by about 15 per cent per year in the medium-term. By 2020, PBO estimates a total fiscal impact of \$2.8 billion (\$1.9 billion federal and \$950 million provincial).

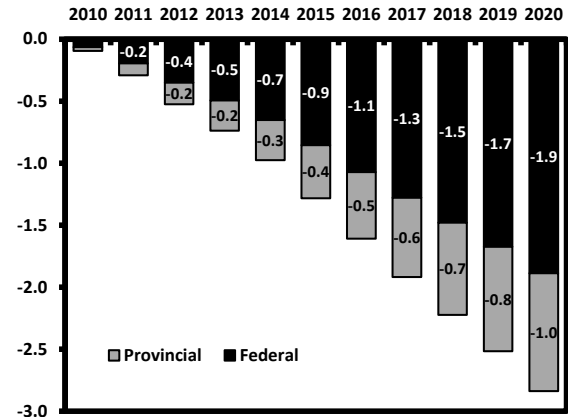
These estimates account for the fiscal impact of reduced income tax revenues as well as the increase in federal and provincial transfers on income-tested programs (e.g. Guaranteed Income Supplement, Old Age Security, and Employment Insurance). On average, about two-thirds of the TFSA benefits are derived

through reduced income taxes, with the remaining delivered through higher transfer payments on income-tested programs.

Figure 3-1

TFSA medium-term fiscal impact

Billions of dollars, nominal



Source: Parliamentary Budget Officer.

The TFSA program is unlike most other expenditures, which generally grow in line with per capita GDP and demographics. Rather, the primary cost growth driver of the TFSA is the continued growth of the exempt tax base – by up to \$5,500 per person, each year.³⁸

In 2015, the cumulative TFSA contribution limit for most individuals is \$36,500, summing to potential exempt room of about \$1 trillion for all eligible Canadians.³⁹ By 2080, TFSA room will increase tenfold, to about \$9 trillion in inflation-adjusted dollars.

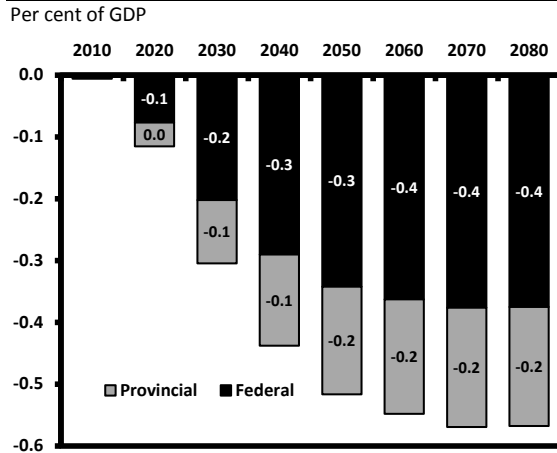
In practice, relatively few individuals project to consistently maximize TFSA contribution room, but PBO projects that TFSA program costs project to increase roughly ten-fold by 2080 (measured as a share of GDP).

³⁸ The annual amount by which the TFSA contribution limit is increased is indexed in order to keep pace with inflation. For the years 2009 through 2012, this amount was \$5,000. In 2013, the amount was increased to its current level of \$5,500.

³⁹ Individuals younger than 18 years of age in 2009 will have contribution room less than \$36,500. Contribution room for these individuals will have begun, or will begin, on the tax year of their 18th birthday.

The TFSA fiscal impact in 2014 is about 0.06 per cent of GDP, and this amount projects to increase to about 0.57 by 2080.⁴⁰

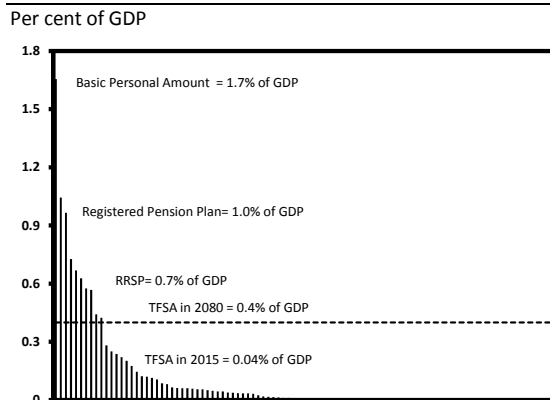
Figure 3-2
TFSA long-term fiscal impact



Source: Parliamentary Budget Officer.

This long-term total fiscal impact is roughly proportional to the current federal fiscal impact of the RRSP, now the third largest of the 130 federal tax expenditures (Figure 3-3).

Figure 3-3
Federal personal income tax expenditures



Sources: Parliamentary Budget Officer, Finance Canada: Tax Expenditures and Evaluations.

Box 3-4

Treatment of investment income in Canada

Income from interest, dividends and capital gains are all amounts reported on a standard personal income tax return, and taxed much like employment earnings or Canada Pension Plan (CPP) benefits. Like employment income, CPP benefits and other forms of income, these amounts contribute to an individual's total income. This amount, less deductions, comprises taxable income. Taxable income is taxed at the rates specified on the federal schedule 1 and corresponding provincial tax forms. Investment income counts toward the income test on federal and provincial income-tested benefits.

Interest, dividends and capital gains on investment assets held within a TFSA are not reported on a personal tax return. Income earned within a TFSA does not contribute to an individual's taxable income or income test on federal and provincial benefits. TFSA income accrues no tax liability and has no impact on transfers.

Unlike direct program spending and transfer programs, programs classified as tax expenditures do not undergo periodic review and parliamentarians are not asked to approve annual spending amounts.⁴¹ Thus, the TFSA program projects to undergo tenfold growth under existing program rules without planned parliamentary review or approval over tax expenditure amounts or an assessment of progress toward the program's policy objectives.

⁴⁰Federal \$77 billion (0.37% of GDP); provinces \$39 billion (0.19% of GDP).

⁴¹http://www.pbo-dpb.gc.ca/files/files/Publications/Tax_Expenditures_Note_EN.pdf. Accessed December 2014.

4 Distributional analysis

Distribution by income

In 2015, TFSA benefits are balanced, with middle-income households realizing the largest gains and low- and high-income households having comparable benefits (Figure 4-1).

Figure 4-1

TFSA total benefits: income groups

Per cent of after-tax income

	2015	2030	2045	2060	2075
Lowest	0.11	0.31	0.48	0.49	0.47
	0.18	0.75	1.20	1.31	1.33
Median	0.23	1.04	1.61	1.75	1.77
	0.19	0.96	1.53	1.71	1.76
Highest	0.13	0.70	1.16	1.36	1.44
	0.16	0.81	1.30	1.46	1.51
Average					

Source: Parliamentary Budget Officer.

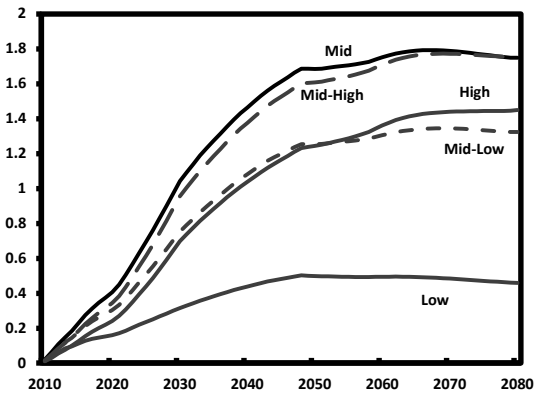
This effect is caused by large transfer gains supplementing the direct income tax savings on TFSA investment income for low- to middle-income households. Unlike ordinary employment, investment or pension income (including RRSPs), income generated in, or withdrawn from a TFSA is exempt from the income test on federal benefits. Transfer benefits skew predominantly to lower- and middle-income households.

Over time, the distribution of benefits in the TFSA projects to become regressive by income. Continued growth in TFSA contribution room will increasingly benefit higher income households, with the smallest relative gains accruing to low-income households (Figure 4-2).

Figure 4-2

TFSA total benefits: income groups

Per cent of after-tax income



Source: Parliamentary Budget Officer.

The relatively balanced share of benefits for low-middle through high income households is caused by two types of gains which offset by income group. Tax gains generally increase with income and are generally received by medium- to high-income households (Figure 4-3). TFSA transfer gains on income-tested federal and provincial transfers generally decrease with income and are predominantly received by low- to middle-income households (Figure 4-4).

Figure 4-3

TFSA tax benefits: income groups

Per cent of after-tax income

	2015	2030	2045	2060	2075
Lowest	0.05	0.14	0.21	0.21	0.20
	0.08	0.35	0.54	0.58	0.59
Median	0.15	0.68	1.07	1.17	1.19
	0.15	0.76	1.22	1.37	1.42
Highest	0.12	0.67	1.12	1.31	1.38
	0.12	0.63	1.02	1.15	1.20

Source: Parliamentary Budget Officer.

Figure 4-4

TFSA transfer benefits: income groups

Per cent of after-tax income

	2015	2030	2045	2060	2075
Lowest	0.07	0.17	0.27	0.28	0.27
	0.10	0.41	0.66	0.73	0.75
Median	0.08	0.36	0.54	0.58	0.57
	0.04	0.19	0.30	0.34	0.34
Highest	0.00	0.03	0.04	0.05	0.06
	0.04	0.18	0.28	0.31	0.31

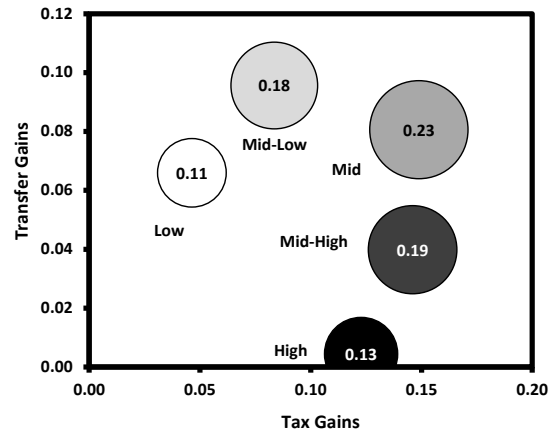
Source: Parliamentary Budget Officer.

Figure 4-5 illustrates the size and composition of TFSA benefits in the 2015 tax year. The size of the circle and accompanying text illustrates total TFSA benefits as a share of after tax income. The location of the circle indicates the composition of benefits by tax and transfer gains. Circles located further right along the x-axis indicate larger tax gains, while those located higher along the y-axis have larger transfer gains. The TFSA mostly benefits low-income households through transfer gains (0.11 total benefits = 0.07 transfer + 0.05 tax). High-income households benefit almost exclusively through tax savings (0.13 total benefits = 0.00 transfer + 0.12 tax).

Figure 4-5

TFSA gains by income group: 2015

Per cent of after-tax income



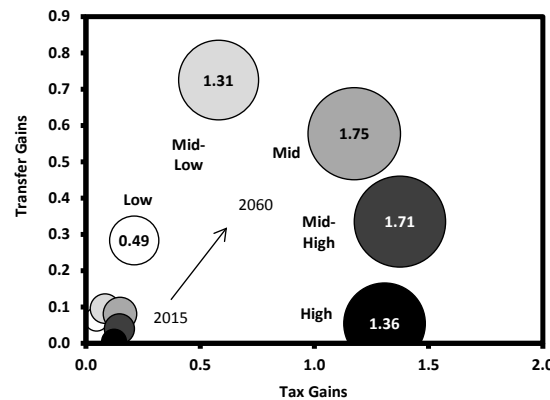
Source: Parliamentary Budget Officer.

Despite rapid growth in the size of the fiscal impact of the TFSA program, the composition and distribution of gains remains fairly consistent over time (Figure 4-6). However, gains shift somewhat from lower to upper income earners from 2015 to 2060. Throughout this period, gains project to split fairly consistently between taxes and transfers, with tax gains accounting for about 80 per cent of the total fiscal impact.

Figure 4-6

TFSA gains by income group: 2015 and 2060

Per cent of after-tax income



Source: Parliamentary Budget Officer.

Figure 4-7

TFSA total benefits: income groups

Billions of dollars, nominal

	2015	2030	2045	2060	2075
Lowest	0.0	0.2	0.5	1.0	1.6
	0.2	1.1	3.1	5.8	10.3
Median	0.3	2.3	6.2	11.7	20.4
	0.4	3.0	8.0	15.2	27.1
Highest	0.4	3.7	10.4	20.5	37.7
Total	1.3	10.4	28.3	54.1	97.1

Source: Parliamentary Budget Officer.

Figure 4-8

Share of TFSA benefits by income group

Per cent of total dollar benefits

	2015	2030	2045	2060	2075
Lowest	3	2	2	2	2
	12	11	11	11	11
Median	23	23	22	22	21
	28	29	28	28	28
Highest	34	36	37	38	39

Source: Parliamentary Budget Officer.

Distribution by net worth

Across all income groups, the preponderance of gains will accrue to the wealthiest 40 per cent of households; especially those in the top 20 per cent of net worth (see Box 4-9 for an illustration of the contrast between wealth and income).

TFSA benefits plateau for each wealth group as total financial assets available to contribute to TFSAs are exhausted.⁴² Over time, a decreasing share of the population will benefit from continued increases to TFSA room (Figures 4-10 and 4-11).

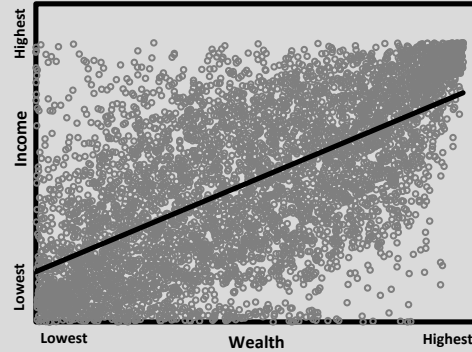
⁴² Wealth groups are classified by total household net worth, including non-financial capital such as housing and total financial liabilities. Only financial assets are considered as eligible for contribution to TFSAs. If households liquidate non-financial capital to invest in TFSA eligible assets, gains would project higher than estimated in this report.

Box 4-9

Contrasting wealth and income

Household financial wealth is positively correlated with household income.

Household rank (both axes)



Sources: Office of the Parliamentary Budget Officer; Survey of Financial Security Public Use Micro Files.

While these factors are statistically related, it is important for the interpretation of the findings in this report to keep in mind the distinction between income (an annual flow) and wealth (a stock, generally built through an accumulation of lifetime savings or inheritance).

To illustrate, two hypothetical examples:

Household A: high income, low wealth

- Two physicians, aged 32.
- Pre-tax and transfer income: \$400,000
- Investment Assets: \$200,000
- Student Debts: \$300,000
- Net worth: -\$100,000

Household B: modest income, high wealth

- Two retirees, aged 71.
- Pre-tax and transfer income: \$35,000
- Private pension assets: \$1 million
- Debts: \$0
- Net worth: \$1 million

Figure 4-10

TFSA total benefits: wealth groups

Per cent of after-tax income

	2015	2030	2045	2060	2075
Lowest	0.08	0.22	0.27	0.23	0.19
	0.16	0.62	0.88	0.88	0.83
Median	0.17	0.76	1.15	1.17	1.11
	0.17	0.88	1.42	1.53	1.52
Highest	0.18	1.00	1.71	2.11	2.32
	0.16	0.81	1.30	1.46	1.51

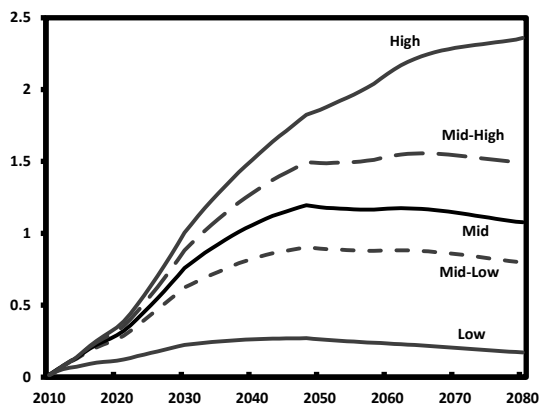
Source: Parliamentary Budget Officer.

It is somewhat uncommon to evaluate tax and transfer policy by wealth. Wealth is less frequently recorded in household financial statistics and economic data and is not typically disclosed on tax returns or transfer payment applications. Therefore, in many types of analysis wealth distribution analysis is not as commonly presented. However, because TFSA benefits and participation is primarily regulated and influenced by limits on, and the availability of financial assets, household wealth plays a critical role in the practical aspects of TFSA participation and effective benefits. PBO includes wealth distribution analysis in this context.

Figure 4-11

TFSA total benefits: wealth groups

Per cent of after-tax income



Source: Parliamentary Budget Officer.

TFSA tax benefits are very regressive by wealth (Figure 4-12). Unlike the redistributive offset of transfers for income groupings, the transfer benefits between wealth groups are uniformly distributed across low-middle through high-wealth households (Figure 4-13).

Low-wealth households currently receive smaller tax and transfer gains than the median household, and this disparity will grow over the long-term.

Figure 4-12

TFSA tax benefits: wealth groups

Per cent of after-tax income

	2015	2030	2045	2060	2075
Lowest	0.05	0.14	0.16	0.14	0.11
	0.10	0.39	0.54	0.54	0.50
Median	0.12	0.53	0.80	0.81	0.77
	0.14	0.70	1.12	1.19	1.17
Highest	0.15	0.87	1.47	1.81	1.99
	0.12	0.63	1.02	1.15	1.20

Source: Parliamentary Budget Officer.

Figure 4-13

TFSA transfer benefits: wealth groups

Per cent of after-tax income

	2015	2030	2045	2060	2075
Lowest	0.03	0.09	0.11	0.09	0.07
	0.06	0.23	0.34	0.34	0.32
Median	0.05	0.23	0.35	0.36	0.34
	0.04	0.19	0.30	0.34	0.35
Highest	0.02	0.14	0.24	0.30	0.33
	0.04	0.18	0.28	0.31	0.31

Source: Parliamentary Budget Officer.

Distribution by age

Like wealth, the age of the individuals within a household influence TFSA benefits. PBO estimates that larger TFSA gains will accrue to older households relative to younger counterparts, all else equal.

Several factors lead to this outcome:

- Older households have higher net worth and are more likely to participate in tax-preferred savings programs.
- Older households have greater likelihood to gain from both types of TFSA benefits: tax savings on investment income and transfer gains, by investment income being excluded from income tested transfers (e.g. the Guaranteed Income Supplement, Old Age Security, and Employment Insurance).
- The TFSA contribution amounts are directly linked to age. Adjusted to 2009 dollars, an individual aged 38 will have \$100,000 in TFSA contribution room in 2060, while an otherwise equivalent person aged 68 will have \$250,000 in room.⁴³

The TFSA gains disparity between young and old is most pronounced in 2015 for low-income households, where gains are three times as large for those aged 46 and over as compared to those aged 45 and younger (Figure 4-14).⁴⁴

In the lowest 40 per cent of income earning households, older households receive similar tax benefits but considerably larger transfer gains on TFSA returns. This is primarily influenced by the exemption of TFSA income from income tested elderly benefits – the GIS and OAS clawbacks.

Figure 4-14

TFSA total benefits: income and age groups

Per cent of after-tax income

Age 45 and under					
	2015	2030	2045	2060	2075
Lowest	0.05	0.19	0.26	0.25	0.21
	0.12	0.56	0.81	0.86	0.84
Median	0.25	1.19	1.72	1.77	1.72
	0.19	0.88	1.34	1.42	1.44
Highest	0.11	0.60	1.01	1.13	1.20
Average	0.15	0.75	1.15	1.24	1.27
Age 46 and over					
	2015	2030	2045	2060	2075
Lowest	0.16	0.38	0.60	0.62	0.60
	0.23	0.89	1.46	1.60	1.65
Median	0.21	0.94	1.55	1.74	1.79
	0.18	1.03	1.68	1.95	2.02
Highest	0.14	0.78	1.30	1.57	1.64
Average	0.17	0.86	1.41	1.63	1.70

Source: Parliamentary Budget Officer.

Note: Calculated on a person-weighted household basis. Individuals with economic family members outside their age range may display certain savings and investment behaviours of non-age peers.

Conversely, for higher income households, younger households are more likely to receive slightly smaller tax gains, but larger transfer gains (e.g. federal and provincial family benefits) than their older counterparts.

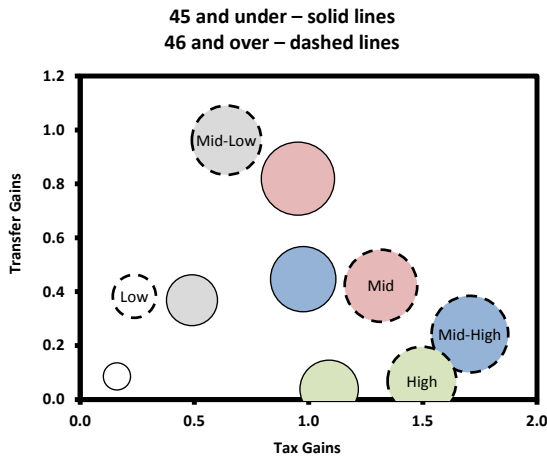
This age disparity increases over time. Over the longer term, the TFSA will increasingly favour older, wealthier households as compared to younger counterparts with otherwise equivalent income (Figure 4-15).

⁴³ Calculated as annual TFSA increment, multiplied by the years of age in excess of 18: \$5,000 x (38 - 18) = \$100,000 and \$5,000 x (68 - 18) = \$250,000.

⁴⁴ All estimates in this section account for the impact of both federal and provincial income tax exemptions on household tax gains, unless otherwise indicated.

Figure 4-15
TFSA total benefits: income and age groups in 2060

Per cent of after-tax income



Source: Parliamentary Budget Officer.
 Note: Calculated on a person-weighted household basis. Individuals with economic family members outside their age range may display certain savings and investment behaviours of non-age peers.

Large tax gains are compounded by higher transfer benefits. Segmenting the gains by age also allows for an illustration of the distributive effects of transfer gains. In contrast to the generally balanced distribution by income for the general population, the TFSA program has, and will continue to have increasingly regressive outcomes for Canadians aged 45 and younger.

Younger households are generally ineligible for many of the progressive indirect benefits of the TFSA program, namely the Guaranteed Income Supplement and Old Age Security.

Low-income households aged 45 and younger and have more limited access to federal benefits and credits. This leads to gains that are driven primarily through tax savings, which increase with income.

By comparison, the benefits of the TFSA program are more evenly distributed across income groups for persons aged 46 and over. Eligibility of one or more household members for GIS, OAS or other transfer programs generates indirect benefits beyond direct tax savings, leading to relatively more progressive outcomes.^{45,46,47} Even among the wealthiest 20 per cent of households, gains are expected to favour older households – due to increased access to transfers in the near term. This effect is in addition to access to higher TFSA contribution thresholds in the longer term (Figure 4-16).

In essence, the TFSA program offers tax windfall gains to older and wealthier households. However, a household in 2015 benefits quite differently than an otherwise identical household in 2060 (holding demographics, wealth and income status constant) due to the growth dynamics of TFSA contribution room.

⁴⁵ Rate of return on investment is an additional important determinant of investment income. However, the disparity of rate of return on investment within asset classes is anticipated to be less pronounced than the disparity of financial wealth. PBO analysis accounts for differences in expected long-term rates of return on various assets types, as well as the respective weight of each asset in simulated investment portfolios.

⁴⁶ TFSA utilization rates are estimated based on observed savings and investment behaviour for RRSP accounts. RRSP utilization tends to increase with wealth, so assumed higher TFSA utilization by high wealth individuals leads to a portion of the disparity between high- and low-wealth households. This effect is most pronounced in the years 2009 and 2010. Over the medium and long-term, assumed utilization rate differences have a decreasing effect on distributional results. Section 5, p. 22 provides a more detailed discussion regarding TFSA utilization rate assumptions.

⁴⁷ Average age, for this purpose, is defined as the average age of the two eldest persons of a household. For single person households, the age of the individual is deemed the household's average age.

Figure 4-16

TFSA total benefits: wealth and age groups

Per cent of after-tax income

Age 45 and under					
	2015	2030	2045	2060	2075
Lowest	0.09	0.24	0.28	0.25	0.20
	0.16	0.65	0.89	0.88	0.83
Median	0.16	0.80	1.21	1.25	1.23
	0.18	1.00	1.65	1.80	1.88
Highest	0.15	0.87	1.50	1.78	1.99
Total	0.15	0.75	1.15	1.24	1.27

Age 46 and over					
	2015	2030	2045	2060	2075
Lowest	0.07	0.18	0.24	0.20	0.15
	0.15	0.55	0.86	0.88	0.83
Median	0.17	0.70	1.08	1.07	0.96
	0.17	0.80	1.28	1.36	1.29
Highest	0.19	1.04	1.77	2.20	2.41
Total	0.17	0.86	1.41	1.63	1.70

Source: Parliamentary Budget Officer.

5 Scenario analysis

Scenario analysis is included to illustrate the sensitivity of results to key assumptions and program design elements. All data, methods and assumptions are identical to the baseline unless explicitly stated.

Contribution limit scenario

The total contribution limit is the primary regulatory tool to control the size of, and access to the TFSA program. As prescribed in the *Income Tax Act*, the TFSA contribution limit is increased each year by about \$5,500 (indexed to inflation). The limit is also subject to an age criteria – an individual can contribute up to \$5,500 per year for each year in excess of age 18.

To illustrate the fiscal and distributional effect of the gradually increasing contribution limit, PBO estimates program costs and distributional impacts under two alternative contribution limit increase scenarios. Each scenario is assumed to take effect beginning in the 2016 tax year.

The first PBO scenario assumes that the annual TFSA contribution limit increment amount is doubled, from \$5,500 at present, to \$11,000. This increment amount would be indexed to inflation, as is currently the case for the \$5,500 limit.⁴⁸

If this amount was increased to \$11,000 beginning in 2016, the long-term fiscal cost of the TFSA program would increase by about \$70 million in 2016, increasing to about \$680 million in 2020.

⁴⁸ The annual amount by which the TFSA contribution limit is increased is indexed in order to keep pace with inflation. For the years 2009 through 2012, this amount was \$5,000. In 2013, the amount was increased to its current level of \$5,500.

Figure 5-1

TFSA medium term additional fiscal impact: doubled limit scenario

Millions of dollars, nominal

	2016	2017	2018	2019	2020
Federal	50	170	250	350	450
Provincial	20	80	130	180	230
Total	70	250	380	520	680
Percentage increase	4%	12%	15%	19%	21%

Source: Parliamentary Budget Officer.

Over the longer term, the fiscal impacts of the change would increase the total TFSA program cost by roughly one-third (Figure 5-2).

Figure 5-2

TFSA long term additional fiscal impact: doubled limit scenario

Billions of dollars, nominal

	2020	2030	2040	2050	2060	2070	2080
Federal	0.5	2.8	6.3	10.6	14.7	20.1	25.9
Provincial	0.2	1.4	3.2	5.4	7.6	10.3	13.4
Total	0.7	4.2	9.5	16.0	22.3	30.4	39.3

Percentage increase	21%	36%	39%	38%	34%	30%	26%
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Source: Parliamentary Budget Officer.

Over time, a declining share of households will have taxable financial assets available to contribute to TFSAs. This should limit potential incremental contributions over the long term.⁴⁹

The TFSA contribution limit increase is not projected to materially change the distributional profile of the program, when measured by income. Long-term outcomes are somewhat regressive, with middle- and

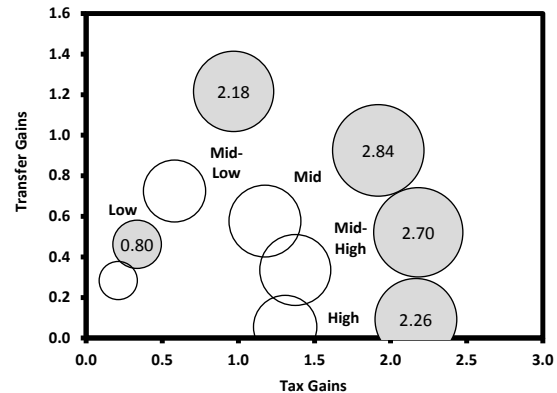
⁴⁹ This result is conditioned on the assumption that participation rates are unchanged under a higher annual contribution limit. If households previously not participating in the TFSA under the \$5,500 contribution limit are induced to participate under a higher annual threshold, the fiscal impact would increase from PBO estimates.

middle-high income groups receiving the greatest gains (Figures 5-3 and 5-4).

Figure 5-3

Long-term distribution of gains by household income: doubled limit scenario, 2060 tax year

Per cent of after-tax income



Source: Parliamentary Budget Officer.

Figure 5-4

Long-term distribution of gains by household income: doubled limit scenario

Per cent of after-tax income

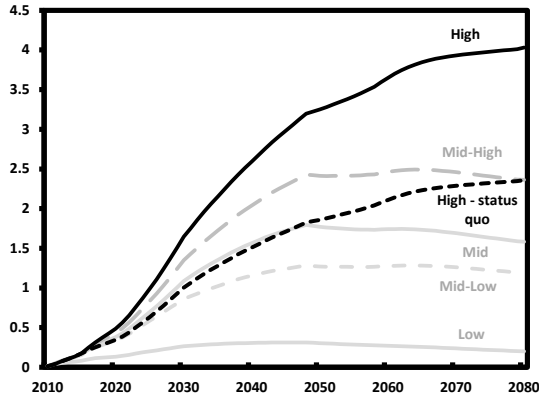
	2015	2030	2045	2060	2075
Lowest	0.11	0.48	0.79	0.80	0.74
	0.18	1.20	2.03	2.18	2.20
Median	0.23	1.58	2.58	2.84	2.90
	0.19	1.44	2.42	2.70	2.76
Highest	0.13	1.09	1.92	2.26	2.39
Average	0.16	1.24	2.11	2.39	2.46

Source: Parliamentary Budget Officer.

However, increasing the annual contribution limit would predominantly benefit the wealthiest 20 per cent of households (Figure 5-5). In 2045, the average TFSA benefit for the wealthiest 20 per cent of households would be 3.0 per cent of net income, as compared to 1.7 per cent under the baseline. By comparison, the average TFSA benefit for the middle-wealth household would increase by about 0.5 percentage points, from 1.2 to 1.7 per cent of net income.

Figure 5-5
Long-term distribution of gains by household net worth

Per cent of after-tax income



Source: Parliamentary Budget Officer.

This scenario would also advantage older Canadians. By 2080, the highest wealth households, aged 46 and over would experience gains almost twice as large as those expected under existing program rules.

Figure 5-6
Baseline vs. doubled limit scenario: difference in relative gains by household income, 2045 tax year

Per cent of after-tax income

	Age 45 and under			Age 46 and over		
	Baseline	Doubled	Difference	Baseline	Doubled	Difference
Lowest	0.26	0.39	0.13	0.60	1.00	0.40
	0.81	1.33	0.52	1.46	2.50	1.04
Median	1.72	2.60	0.88	1.55	2.57	1.02
	1.34	2.02	0.68	1.68	2.75	1.07
Highest	1.01	1.63	0.63	1.30	2.16	0.86

Source: Parliamentary Budget Officer.

Figure 5-7
Long-term distribution of gains by household net worth and age

Per cent of after-tax income

	Age 45 and under				
	2015	2030	2045	2060	2075
Lowest	0.09	0.29	0.34	0.29	0.23
	0.16	0.91	1.25	1.28	1.23
Median	0.16	1.16	1.84	1.90	1.87
	0.18	1.52	2.64	2.90	2.99
Highest	0.15	1.42	2.61	3.08	3.40
Average	0.15	1.11	1.80	1.96	2.00

	Age 46 and over				
	2015	2030	2045	2060	2075
Lowest	0.07	0.20	0.25	0.22	0.18
	0.15	0.74	1.22	1.27	1.22
Median	0.17	0.99	1.58	1.53	1.34
	0.17	1.23	2.08	2.18	2.05
Highest	0.19	1.71	3.08	3.80	4.13
Average	0.17	1.35	2.35	2.71	2.80

Source: Parliamentary Budget Officer.

\$100,000 TFSA contribution limit scenario

PBO also examined a scenario where the TFSA contribution room limit is increased permanently to \$100,000 in 2016, with no real annual contribution room growth thereafter.⁵⁰ This scenario is included to illustrate the fiscal and distributional effects of annually increasing TFSA room over time, as well as the age dynamics of linking contribution room to a taxpayer's age in excess of 18 years old.

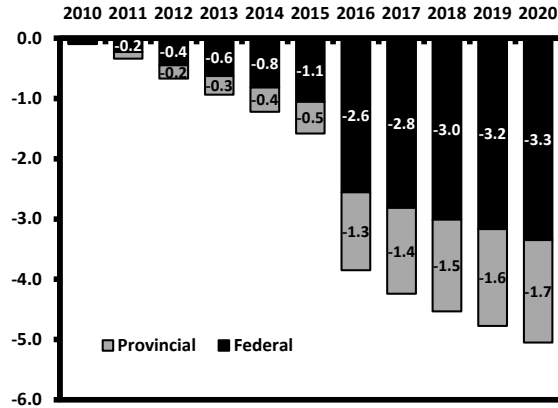
The immediate fiscal impact of this scenario would be a doubling of TFSA program costs, to about \$2.9 billion in 2016 (Figures 5-8 and 5-9). It is anticipated that eligible participants would fill remaining TFSA contribution room immediately, with amounts of about \$60,000 in contributions. This scenario assumes identical utilization rate patterns as were assumed under the baseline scenario.

⁵⁰ This \$100,000 threshold would be indexed to inflation.

Figure 5-8

Medium-term fiscal impact: \$100,000 limit scenario

Per cent of GDP



Source: Parliamentary Budget Officer.

Figure 5-9

Medium-term additional fiscal impact: \$100,000 limit scenario

\$ millions, nominal dollars

	2016	2017	2018	2019	2020
Federal	1,400	1,420	1,380	1,310	1,250
Provincial	710	720	700	670	640
Total	2,110	2,140	2,080	1,990	1,900
Percentage increase	121%	102%	85%	71%	60%

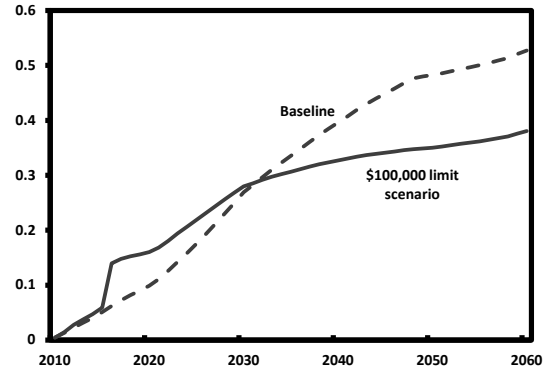
Source: Parliamentary Budget Officer.

However, over time, the TFSA program costs would grow more slowly than under the status quo. By 2030, the TFSA program costs under a contribution limit capped at \$100,000 (indexed for inflation) would roughly equal the baseline scenario. Over the long term, PBO projects the fiscal impact under scenario of capped contributions would be about 30 per cent smaller than fiscal costs under the status quo TFSA rules (Figures 5-9 and 5-10).

Figure 5-10

Long-term fiscal impact: \$100,000 limit scenario

Per cent of GDP



Source: Parliamentary Budget Officer.

Figure 5-11

Long-term additional fiscal impact: \$100,000 limit scenario

\$ billions, nominal dollars

	2020	2030	2040	2050	2060	2070	2080
Federal	1.3	0.2	-3.0	-8.0	-12.6	-20.1	-31.0
Provincial	0.6	0.1	-1.5	-4.0	-6.3	-10.1	-15.6
Total	1.9	0.4	-4.5	-12.0	-18.9	-30.2	-46.6
Percentage increase	60%	3%	-18%	-28%	-29%	-30%	-31%

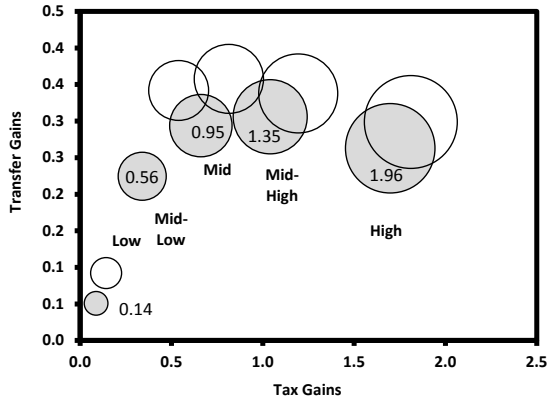
Source: Parliamentary Budget Officer.

The income and wealth distributional profiles of tax and transfer benefits are largely unaffected under this scenario over the long term. However, benefits are relatively lower than the baseline for all groups due to a diminished TFSA contribution room for many households.

Figure 5-12

**Tax and transfer impact by wealth group:
\$100,000 limit scenario, 2060 tax year**

Per cent of after-tax income



Source: Parliamentary Budget Officer.

Conversely, the distribution of relative benefits shifts by age group, as TFSA benefits under a capped scenario are more balanced between age groups. Removing the age-dependent TFSA contribution room limit leads to TFSA gains that are roughly proportional for persons aged 45 and younger and those aged 46 and older.

Figure 5-13

**Distributional impact by age and income:
\$100,000 limit scenario**

Per cent of after-tax income

	Age 45 and under				
	2015	2030	2045	2060	2075
Lowest	0.06	0.23	0.23	0.22	0.20
	0.16	0.71	0.82	0.86	0.87
Median	0.33	1.25	1.43	1.51	1.53
	0.26	1.06	1.26	1.37	1.45
Highest	0.16	0.83	1.08	1.22	1.34
Average	0.21	0.92	1.12	1.22	1.30
	Age 46 and over				
	2015	2030	2045	2060	2075
Lowest	0.18	0.45	0.47	0.47	0.45
	0.26	1.03	1.14	1.21	1.23
Median	0.23	1.03	1.21	1.33	1.37
	0.20	1.08	1.29	1.46	1.51
Highest	0.17	0.93	1.18	1.38	1.46
Average	0.20	0.97	1.16	1.31	1.36

Source: Parliamentary Budget Officer.

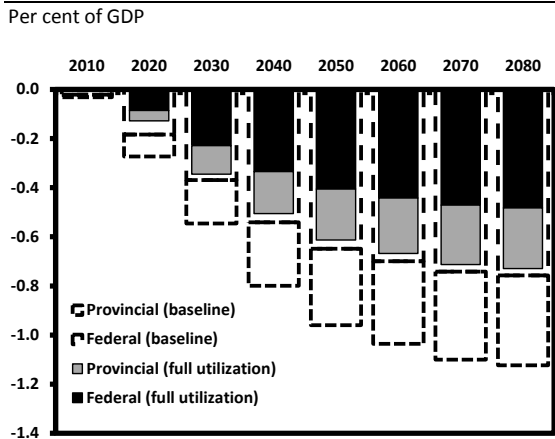
Utilization rates scenario

The Canadian experience with tax-preferred accounts such as RRSPs suggests that not all eligible individuals fully employ tax-preferred accounts for all savings and investment.

PBO assumes long-term TFSA utilization rates based on observed recent TFSA usage, RRSP usage by income and age, and observed utilization rates in other jurisdictions with tax exempt savings accounts. RRSP utilization rates are assumed to be a good proxy of longer term TFSA utilization because the permissible investments for a TFSA are generally the same as those permitted for RRSPs, and the net tax advantages are similar for most individuals.

However, if these assumptions are altered and it is assumed that individuals will tax-minimize, wherever possible, the projected costs of the TFSA program would increase by about 25 per cent relative the baseline projections of this report (Figure 5-14)

Figure 5-14
Fiscal impact: higher TFSA utilization



Source: Parliamentary Budget Officer.

PBO estimates that utilization rates generally increase with income, age and wealth. Assuming full participation by eligible individuals tends to increase participation (and relative gains) to lower income, younger

cohorts. Hence, if utilization is higher and more uniform across income groups than projected in the PBO baseline scenario, low- to middle-income groups would receive the largest relative gains, all else equal (Figure 5-16).

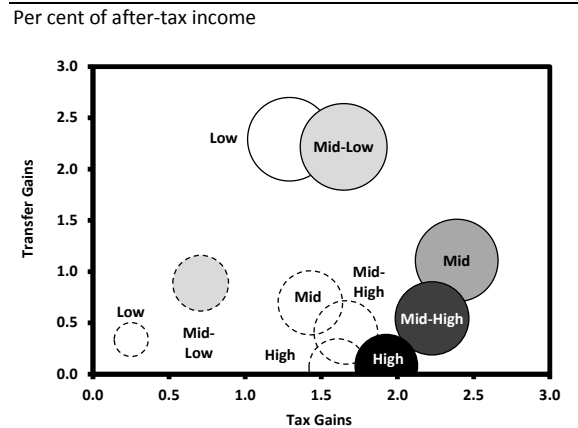
Figure 5-15
Long-term TFSA utilization rate

Per cent of eligible population

Income group (dollars 000s)	Age group			
	18-25	26-45	46-65	66+
0-20	23%	29%	26%	13%
20-40	54%	59%	53%	37%
40-60	71%	84%	72%	50%
60-80	82%	89%	86%	66%
80+	89%	93%	93%	82%

Sources: Parliamentary Budget Officer.

Figure 5-16
Distributional impact: higher TFSA utilization, 2060 tax year



Source: Parliamentary Budget Officer.

This scenario is intended to be illustrative of the sensitivity to key assumptions. This scenario represents an upper-bound estimate on the TFSA utilization assumption used throughout this report rather than an equally likely alternative. In practice, PBO estimates that utilization rates may deviate above or below the baseline rate with equal probability.

Investment returns scenarios

As outlined in Figures 2-1 and 2-3, the annual investment rate of return plays a key role (along with the market value of invested assets) in determining the annual amount of TFSA investment income exempt from taxation.

Investment rate of return projections are based on the Bank of Canada's estimate of the neutral rate of interest and asset class return premiums estimated by the Office of the Chief Actuary of Canada for the Canada Pension Plan.

Analysis of the sensitivity of results to these assumptions is illustrated through alternate scenarios where interest rates are modeled 100 basis points (bps), or 1%, higher and lower than the baseline scenario.

Figure 5-17

Total fiscal impact: interest rate sensitivity scenarios

Billions of dollars, nominal

	Neutral rate	2010	2020	2030	2040	2050	2060	2070	2080
-100 bps	2.5%	0.0	1.6	6.1	12.4	20.2	29.3	42.1	57.4
Baseline	3.5%	0.1	3.0	11.3	23.5	39.9	59.9	89.5	127.6
+100 bps	4.5%	0.1	4.5	17.5	37.9	67.7	108.5	172.7	262.1

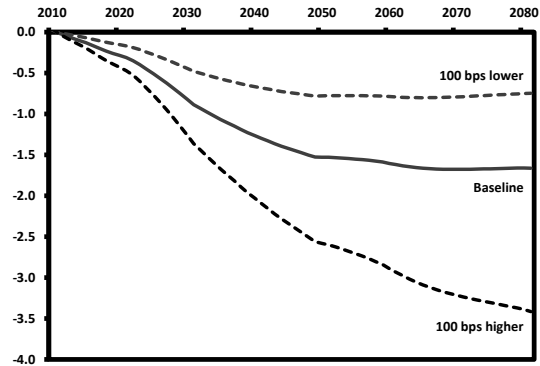
Source: Parliamentary Budget Officer.

If rates are 100 bps lower (higher) than the PBO assumption, the fiscal impact of the TFSA will be approximately halved (doubled) over the long-term. Figures 5-17 and 5-18 depict the combined federal and provincial fiscal impact as a share of nominal GDP under each interest rate scenario.

Figure 5-18

Fiscal impact: interest rate sensitivity scenarios

Per cent of GDP



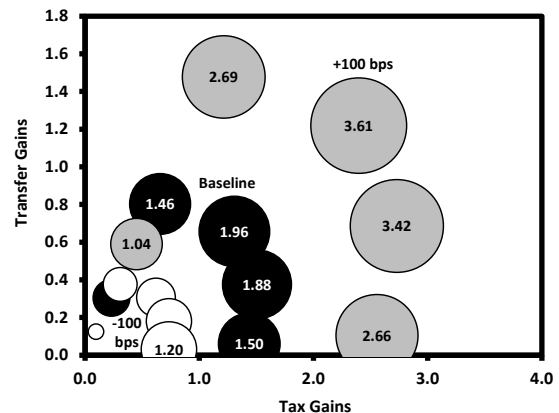
Source: Parliamentary Budget Officer.

Though the relative magnitude of gains are sensitive to the interest rate forecast, the distributional outcomes of the TFSA are largely unaffected (Figure 5-19). Irrespective of the interest rate assumption, the TFSA has somewhat regressive outcomes, with middle-income households receiving the largest gains.

Figure 5-19

Tax and transfer impact: interest rate sensitivity scenarios, 2060 tax year

Per cent of after-tax income



Source: Parliamentary Budget Officer.

Annex A – International comparisons to Canada’s Tax Free-Savings Accounts

United Kingdom – Individual Savings Accounts (ISAs)

The United Kingdom introduced Individual Savings Accounts (ISAs) in 1999, replacing earlier tax-exempt savings schemes. Like Canada’s TFSA program, any investment income received in an ISA is exempt from tax and individuals can access their investment at any time, with no statutory lock-in period. Annual contributions are limited to £11,880 for individuals aged under 50 and £15,000 aged 50 and over. Contribution room accumulates over time.

In 2013, the UK government estimated that £443 billion in cash, stocks and shares were held within ISAs, resulting in £1.9 billion foregone income tax revenue to HM Treasury for the 2012-13 fiscal year.^{51,52}

An estimated 23 million adults hold ISAs, or approximately half the eligible adult population.^{53,54} The size of ISA holdings tends to increase with age and income. Individuals aged 65 and over held ISA assets twice the national average and those earnings over £150,000 had three times the ISA savings relative to the national average.⁵⁵

United States – Roth Individual Retirement Arrangements (Roth IRA)

The United States offers two tax preferred retirement savings programs, the IRA and Roth IRA, with tax-treatment characteristics similar

to Canada’s RRSP and TFSA programs. Like RRSPs in Canada, contributions to a traditional IRA are tax deductible and earnings and gains are not taxed until distribution.⁵⁶ Roth IRAs, introduced in 1998, are similar to TFSAs, insofar as contributions cannot be tax deducted, but earnings are exempt from tax and can be withdrawn tax-free.⁵⁷ Unlike TFSAs, Roth IRA participation is prohibited for high income earners.⁵⁸

Latest estimates of the Congressional Budget Office suggest that 4 per cent of U.S. workers use Roth IRA accounts, with participation increasing with age and income.⁵⁹

Japan – Nippon Individual Savings Account (NiSA)

Japan has newly introduced a tax-exempt savings program modeled after the UK ISA program, called the Nippon Individual Savings Account (NiSA).⁶⁰ Tax-exempted investment can be made through the NISA for up to 5 years starting in 2014, with an annual contribution capped at 1 million yen (about 50,000 CAD). Total contributions will be limited to 5 million yen per person. By January 2014, an estimated 5.6 million NISA accounts had been opened at securities firms and banks.

⁵¹ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/305285/statistics.pdf.

⁵² https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/302317/20140109_expenditure_reliefs_v0.4_published.pdf.

⁵³ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/305285/statistics.pdf.

⁵⁴ <http://www.ons.gov.uk/ons/publications/re-reference-tables.html?edition=tcn%3A77-319259>.

⁵⁵ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/305285/statistics.pdf.

⁵⁶ <http://www.irs.gov/Retirement-Plans/Traditional-IRAs>.

Accessed July 2014.

⁵⁷ <http://www.irs.gov/Retirement-Plans/Roth-IRAs>.

⁵⁸ <http://www.irs.gov/Retirement-Plans/Plan-Participant,-Employee/Amount-of-Roth-IRA-Contributions-That-You-Can-Make-for-2014>.

⁵⁹ Average Roth IRA contributions increase with age until age 70, whereby average contributions are observed to begin to decline. <http://www.cbo.gov/sites/default/files/cbofiles/attachments/2011-10-14-TaxIncentives.pdf>.

⁶⁰ <http://www.isda.or.jp/en/newsroom/others/files/NISA.pdf>.

Annex B – Transfers

There are two types of fiscal benefits provided by the TFSA. Both of which are derived by reduced taxable incomes through the exemption of income on TFSA assets. The primary benefit of the TFSA is that investment income earned within a TFSA is not subject to income taxation – Canadians' federal and provincial income taxes payable will decline, all else equal. Almost all TFSA participants benefit from lower income taxes owed, and the tax-exemption of the TFSA represents about 75 per cent of the total fiscal cost of the program.

Secondary TFSA benefits exist for Canadians eligible for income-tested transfers such as Old Age Security, the Guaranteed Income Supplement or other federal and provincial benefits and credits. For some GIS eligible Canadians, the after-tax effect of the TFSA on transfers like the GIS can be equal to, or larger than income tax savings. Indirect benefits of the TFSA not only increase the total fiscal cost of the program by about 25 per cent, but generally shift the distribution of gains toward older, lower income households.

Old Age Security

The Old Age Security (OAS) program is intended to provide a basic pension to Canadians aged 65 and over. OAS eligible seniors may still earn other income from other sources such as employment, the Canada and Quebec Pension Plans (CPP/ QPP), Registered Retirement Savings Plans (RRSPs), other pension schemes or withdrawals on TFSA savings.

Given its stated purpose of meeting basic pension needs, the OAS program is income-tested to target benefits to those not meeting basic pension income needs.⁶¹ Seniors earning

relatively high incomes can apply for OAS benefits but may be required to repay some or all of the OAS benefits received through the OAS Recovery Tax. In 2013, seniors were required to pay a 15 per cent OAS recovery tax on all income exceeding \$70,954. The OAS Recovery Tax applied on all income up to the upper limit of \$114,793 or until OAS benefits are completely repaid.⁶² The repayment amount is divided monthly and deducted from monthly OAS pension payments.

Hence, OAS eligible Canadians earning taxable investment income benefit from shifting taxable investments into TFSAs not only for ordinary income tax purposes, but also to minimize exposure to the OAS Recovery Tax. From the perspective of the federal government, this indirect effect of the TFSA program should result in a net annual fiscal expense by about 2 per cent of total federal costs.

Guaranteed Income Supplement

In addition to the OAS, the GIS targets low-income seniors by providing additional pension benefits subject to a lower income test. To receive the GIS benefit, a person receiving an OAS pension must have an income below the applicable income cut-off level.⁶³

Effective October 2014, a person earning no income before federal transfers is eligible to receive \$764.40 per month in GIS benefits, free of income tax. This amount is reduced by \$1 for every \$25 in annual income, until reaching

⁶¹ Employment and Skills Development Canada, Summative Evaluation of the Old Age Security Program, April 2012. <http://www12.hrsdc.gc.ca/servlet/sgpp-pmps-pub?lang=eng&curisp=p.5bd.2t.1.3ls@->

[eng.isp&curactn=dwnld&pid=6655&did=1](http://www.servicecanada.gc.ca/eng/isp/pub/factsheets/oasta_x.shtml#recovery_tax). Accessed December 2014.

⁶² http://www.servicecanada.gc.ca/eng/isp/pub/factsheets/oasta_x.shtml#recovery_tax.

⁶³ The amount of the Guaranteed Income Supplement (GIS) depends on marital status and previous year's income (or in the case of a couple, the combined income). Unlike the basic OAS pension, GIS benefits are not subject to income tax.

the GIS maximum earnings threshold of \$17,088.⁶⁴

In cases where individuals earn low market incomes, but are heavily comprised of income on invested savings, the TFSA offers individuals an opportunity to reduce taxable income below the GIS threshold, or increase the size of monthly GIS benefits. The effect on federal finance is considerable, about 15 per cent of the total fiscal cost of the TFSA program.

Provincial and other federal benefits and credits

The effect of the TFSA on other income-tested benefits and credits at the federal and provincial level function similar to the OAS/GIS. Income earned within a TFSA, otherwise taxable, reduces the income tested for benefits, increasing costs for government. Federal such as Employment Insurance benefits, the GST/HST sales tax credit, the age amount and the Working Income Tax Benefit.

All transfers and benefits effects are included in PBO estimates.

⁶⁴GIS benefits are in excess of the maximum taxable OAS monthly benefit payment of \$563.74

Annex C – Comparing fiscal estimates of PBO and Finance Canada

PBO historic estimates are roughly similar to those provided by Finance Canada (Figure C-1). PBO estimates are within 5 per cent of Finance Canada totals for the four years estimated. The methods used to derive each estimate are distinct, as is the intended purpose of each report, so figures should be interpreted accordingly.

Finance Canada annually reports the estimated fiscal cost of the TFSA program in Tax Expenditures and Evaluations. Estimates for recent tax years are provided, along with a projection for the upcoming year. However, medium or long-term projections are not provided. The method used by Finance Canada to estimate recent TFSA program costs differs from the approach taken in this report. Finance Canada uses estimates of investment income returns accrued in TFSAs in a specific tax year. Returns vary with market performance and may diverge considerably from one year to the next.

The purpose of this report is to provide medium and long-term fiscal cost estimates of the TFSA program. Retrospective PBO estimates are intended to be indicative of overall trends, rather than provide a descriptive fiscal cost estimate for any specific historic tax year. To preserve consistency and simplicity, identical assumptions are used for historic years as for forward-looking projections, detailed in section 2 of this report. The PBO acknowledges that investment returns in any one year may vary considerably from the long-term average, and caveats historic cost estimates accordingly.

Figure C-1

**TFSA medium term fiscal impact estimates:
PBO and Finance Canada**

\$ Millions					
	2010	2011	2012	2013	2014
PBO	65	195	350	495	650
Finance	165	160	295	410	N/A

Sources: Parliamentary Budget Officer, Finance Canada: Tax Expenditures and Evaluations.

Finance Canada’s Tax Expenditures and Evaluations 2012 estimates that “by the end of 2011, [the program’s third year of existence] approximately 8.2 million Canadians had opened a TFSA, and financial assets held in TFSAs were valued at over \$62 billion.” TFSA data from the Canada Revenue Agency suggests that TFSA assets have grown to \$118 billion in 2013. PBO estimates of TFSA asset values correspond to these amounts.

Annex D – Income and wealth quintile classification

PBO segmented Survey of Financial Security data into income and wealth groups according to economic family annual after-tax income and net worth (Figure D-1).⁶⁵

Figure D-1

Income and wealth quintile classification

Dollars

	Income		Wealth	
	Min	Max	Min	Max
Low	-	19,300	-	10,850
	19,300	32,175	10,850	90,000
Middle	32,175	48,000	90,000	243,350
	48,000	72,300	243,350	550,050
High	72,300	-	550,050	-

Sources: Parliamentary Budget Officer; Statistics Canada.

⁶⁵ Survey of Financial Security micro data is for the 2005 tax year, and classifications are depicted accordingly.