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Cost Estimates of Proposed Tax Measures to Encourage Charitable Donations of Assets

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The *Parliament of Canada Act* mandates the Parliamentary Budget Officer (PBO) to provide independent analysis to Parliament on the state of the nation's finances, the government's estimates, trends in the Canadian economy, and upon request from a committee or parliamentarian, to estimate the financial cost of any proposal for matters over which Parliament has jurisdiction.

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Summary

In March 2012, the House of Commons Standing Committee on Finance asked the PBO to estimate the cost of proposed enhancements to tax incentives for charitable donations. This request included the following three proposals under consideration by the Committee:

1. Eliminating the capital gains tax on charitable donations of private company shares;

2. Eliminating the capital gains tax on charitable donations of real estate; and

3. Extending the carry-forward period from 5 to 10 years for which charitable donations of ecological gifts can be claimed as a tax credit in future tax years.

PBO's Static Cost Estimates for the Proposed Capital Gains Exemptions for Charitable Donations

The proposed capital gains exemptions would lower the after-tax cost of charitable donations of private shares and real estate. As a result, donations of these assets would be expected to increase. However, it is difficult to assess how much these tax measures would reallocate the composition of existing donations — i.e, existing donors substituting the source of some donations from cash toward private shares and real estate, since these donations would provide additional tax benefits — and how much these tax measures would increase overall donations — i.e., all cash and asset donations.

Given this uncertainty, PBO reports two types of cost estimates for these measures: 'static' and 'dynamic'. PBO's static cost estimates include a full substitution effect by existing donors; whereas PBO's dynamic estimates include both full substitution and induced, incremental donations. The following table reports PBO's static cost estimates, including individual and corporate donations. These estimates represent an upper bound for the potential static cost because in practice given the illiquidity of these assets (particularly private shares), full substitution by existing donors is unlikely.

Estimated Static Cost for the Federal Government of the Proposed Capital Gains Exemptions

(Millions of Current Dollars)	5-Year Total Cost	Average Cost Per Year
Private company shares	306	61
Real estate	211	42
Total	518	104

Source: PBO.

Notes: These cost estimates assume full substitution with no change in the total value of charitable donations. Section 3.1 of the paper describes in more detail the costing methodology, assumptions and results.

PBO estimates forgone federal tax revenue for the two capital gains proposals would be roughly $100 million per year or about $500 million over 2013-2017, assuming they were enacted January 2013. PBO estimates the federal cost of the capital gains exemption on charitable donations of private company shares at roughly $300 million over the first five years of implementation, or about $60 million per year. The estimated federal costs for the capital gains exemption on charitable donations of real estate is roughly $200 million over five years, or about $40 million per year. For both of these measures, the on-going costs beyond 2017 would be similar to the average cost per year, when expressed in inflation-adjusted dollars.

PBO's Dynamic Cost Estimates for the Proposed Capital Gains Exemptions for Charitable Donations

PBO's dynamic cost estimates — which include the static costs and also allow for induced donations — are shown in the table below. These estimates depend on how responsive total donations are to the tax changes, based on the assumed elasticities listed in the table.

Estimated Dynamic Cost for the Federal Government of the Proposed Capital Gains Exemptions

	5-Year Total Cost	Average Cost Per Year
Elasticity of -0.15		
Private company shares	374	75
Real estate	246	49
Total	620	124
Elasticity of -0.5		
Private company shares	532	106
Real estate	333	67
Total	864	173
Elasticity of -1.2		
Private company shares	847	169
Real estate	507	101
Total	1354	271

Source: PBO.

Notes: These cost estimates assume full substitution and allow for an increase in the total value of charitable donations, based on the elasticities listed in the table. Section 3.1 of the paper describes in more detail the costing methodology, assumptions and results.

PBO's Static Cost Estimates for the Proposed Extension of the Carry-Forward Period for Ecogifts

PBO estimates forgone federal tax revenue of roughly $25 million over 2013-2023, for extending the carry-forward period from 5 to 10 years for the Ecological Gifts Program, assuming the extension began January 2013 and applied to subsequent donations.[1] The following table provides the estimated cost for the federal government for this proposal, including individual and corporate donations.

Estimated Static Cost for the Federal Government of the 10-year Carry-Forward Period for Ecogifts

(Millions of Current Dollars)	11-Year Total Cost	Average Cost Per Year
10 year carry-forward period for ecogifts	24	S

Source: PBO.

Notes: Following Finance Canada convention, the letter "S" signifies values less than $2.5 million. This cost estimate assumes no change in donation behavior from the proposal. Section 3.2 of the paper describes in more detail the costing methodology, assumptions and results.

[1] The reason for estimating the 11-year time horizon is that the longer carry-forward period would not lead to static costs until the prior five year carry-forward period ended and the 10 year carry-forward period came into effect, which would not occur until 2019.

While the average cost per year over the first decade of implementation is 'small', the analysis suggests an on-going static cost of about $7 million in inflation-adjusted dollars after 2023.

Caveats

These cost estimates represent potential revenue losses to the federal government from enacting the proposals. They are based on projections of tax revenue with and without the proposals in place. Reasonable differences of opinion exist about how best to model these scenarios. In addition, capital gains and charitable asset donations can be quite volatile from year to year. As a result, these estimates are best understood as average impacts over longer time periods rather than precise estimates for any specific tax year. PBO's sensitivity analysis to the main cost estimates attempts to capture the most-likely impacts of the proposed legislation and is intended to convey the uncertain nature of these estimates.

The provinces and territories also offer tax credits for charitable donations. As such, these proposals would imply additional forgone revenue for these governments. As a rough guideline, for every dollar of federal cost, there would be roughly 50 cents of provincial-territorial costs (Finance Canada, 2002).

1. Introduction

This note responds to a request by the House of Commons Standing Committee on Finance for the PBO to estimate the cost of proposed tax incentives for charitable donations of certain types of assets. In the March 2012 Committee request, PBO was asked to estimate the federal costs of three proposals:

1. the elimination of the capital gains tax on donations of shares in a private company;
2. the elimination of the capital gains tax on donations of real estate; and
3. An extension of the carry-forward period from 5 to 10 years for which a donation of an ecological gift could be claimed as a tax credit in a future tax year.

2. Proposed Tax Changes

This section describes the current and proposed tax treatment of charitable donations for individuals and corporations.

2.1 Current Tax Treatment

Charitable Donations Tax Benefits for Individuals

For individuals, monetary donations[2] to federally registered charities are eligible for a non-refundable tax credit.[3] The federal tax credit is two-tiered, with a rate of 15% on the first $200 of donations claimed and 29% on additional donations.[4] Donations may be pooled between spouses and used over a five-year period, subject to a limit of 75% of net income.

Charitable Donations Tax Benefits for Corporations

Corporations can deduct charitable donations from their taxable income. As a result, these donations reduce taxes payable by the corporation's marginal effective tax rate,[5] subject to a limit of 75% of the corporation's net income.

Capital Gains Taxes

For charitable donations of certain assets — such as publicly traded shares, and cultural and ecological property — there are additional tax benefits, due to reduced capital gains taxes. One reason for the additional tax incentive for these assets is to encourage donations by lowering the psychological disincentive donors would otherwise face from a visible tax liability on a donated asset (Burrows, 2009a).[6]

A capital gains tax applies to the profit from the sale of an asset that was purchased at a lower price. Capital gains are taxed by including a portion of the capital gain in the taxpayers' income. The normal capital gain inclusion rate for individuals and corporations is 50%.[7] The basic formula is:

Capital gains taxes owed =
*capital gain * capital gains inclusion rate * marginal effective tax rate*

[2] Donations of money are tax deductible. Donations of time (i.e, volunteering) are not tax deductible but represent a significant part of charitable giving. For example, in 2010, roughly half of Canadians volunteered and total volunteer hours were equivalent to 1.1 million full-time jobs (Statistics Canada, 2012).

[3] A *non-refundable tax credit* can reduce an individual's taxes payable to $0, but any additional credit is not paid to the tax filer.

[4] Provincial and territorial rates vary, but use the same two-tiered structure in distinguishing donations up to and above $200. In 2011, the weighted-average provincial-territorial tax credit rate was 8% on the first $200 donated and 16% on additional donations.

[5] The *marginal effective tax rate* is the tax owing on an additional dollar of earned income.

[6] Budget 1997 reduced the capital gain inclusion rate on charitable donations of publicly listed securities. It noted that while Canada had more generous tax treatment of charitable donations made in cash relative to the U.S., larger donations of appreciated capital property were much more important in the U.S. than in Canada.

[7] For individuals, some assets are exempt from capital gains, such as principal residences and Tax Free Savings Account investments; for small business owners, farmers, and fishers there is a $750,000 lifetime capital gains exemption on sales of qualified assets.

where the capital gain is the proceeds from the sale of the asset less its adjusted cost base[8] and sales costs. Capital losses use the same formula. Losses may be carried backward for the previous three years and carried forward indefinitely to offset future capital gains taxes owed.

2.2 Summary of the Proposed Tax Changes

The three proposals under consideration by the Committee seek to encourage charitable donations of certain assets by reducing their after-tax cost. The proposals are as follows:

Proposal 1: Eliminate the capital gains tax on donations of shares in a private company

Table 1 illustrates how this proposal would reduce the after-tax cost of donating private shares.

Consider an individual who donates $100 in cash. This $100 donation is eligible for a charitable donations tax credit that reduces overall federal and provincial taxes payable by $45 (column 2).

Currently, if the same individual sold shares in a private company and donated the equivalent proceeds to charity, they would also be eligible for the same $45 tax credit. However, capital gains on the sale of the shares would apply at the normal inclusion rate of 50%, and result in taxes owing of $14 (column 3).

Under the proposal, charitable donations of private shares would not pay any capital gains taxes, giving the donor the additional tax benefit of the $14 (column 4).[9] In this example, the proposal would effectively lower by 25% the 'price' of donating with the proceeds from the sale of private shares.

Table 1

Tax Support for Individual Charitable Donations of Cash versus Private Company Shares, Before and After the Capital Gains Exemption

	Cash	Current (50% inclusion rate on capital gains)	Proposed (0% inclusion rate on capital gains)
Charitable donation amount	$100	$100	$100
Charitable donations tax credit[1]	$45	$45	$45
Federal	$29	$29	$29
Provincial-Territorial[2]	$16	$16	$16
Average adjusted cost base[3]	–	$20	$20
Average capital gain[3]	–	$80	$80
Capital gains inclusion rate	–	50%	0%
Average marginal effective tax rate	–	34%	34%
Federal[3]	–	23%	23%
Provincial-Territorial[4]	–	12%	12%
Capital gains tax owing[4]	–	$14	$0
Federal	–	$9	$0
Provincial-Territorial	–	$5	$0
Reduction in capital gains tax[5]	–	$0	$14
Total tax assistance	45%	45%	59%
Federal	29%	29%	38%
Provincial-Territorial	16%	16%	21%
Donor's share of the donation's cost	55%	55%	41%
Change in the donation's price (percentage points)			-14%
Change in the donation's price (percent)			-25%

Source: PBO.
Note: This example is adapted from Table 3.10 of Budget 2006.

[1] Assumes other donations of at least $200 in the year, so the top tax credit rate applies.
[2] Average provincial-territorial charitable donation tax credit rate for donations over $200 in the 2011 tax year. To calculate this average, 2010 shares of total charitable donations are used as weights.
[3] Based on Finance Canada's analysis of T1 data for 2007-2009.
[4] Assumes the same federal and provincial-territorial ratio of the marginal effective tax rate to the highest tax bracket of 78.5%. The weighted average provincial-territorial top bracket rate of 14.8% in the 2011 tax year uses as weights the 2010 provincial-territorial shares of total personal income.
[5] Reduction from the normal 50% inclusion rate that would apply if the individual sold the asset.

[8] The *adjusted cost base* is the cost of the asset including capital expenditures (additions and improvements to the asset) plus any expenses to acquire it, such as commissions and legal fees.
[9] This assumes that the individual would have sold the private shares regardless and thus owed the capital gains tax at that time. If instead, the donor held the private shares, the government's receipt of the capital gains would be delayed until the future sale. For small businesses there are additional factors that complicate matters. One factor is that sales of qualified small business corporate shares are eligible for a lifetime capital gains exemption of $750,000 — which is reduced by any previously-claimed losses. Another factor is that small businesses face a higher statutory federal corporate tax rate on capital gains to prevent the shifting of investment income to exploit differences in corporate and personal tax rates.

Proposal 2: Eliminate the capital gains tax on donations of real estate

The second proposal applies the same basic idea, but would exempt charitable donations of real estate assets from capital gains taxes. Eligible real estate assets could include: residential investment; vacation; or commercial and industrial properties.[10]

One rationale offered to the Committee for these two proposals in testimonies was that they would address differences in the tax treatment of charitable donations between different types of assets. This occurs because charitable donations of shares in private companies and real estate typically result in capital gains taxes owing, whereas in 2006, donations of publicly traded securities became fully exempt from capital gains.

Annex A describes this tax change as well as other key tax changes affecting charitable giving in Canada over the past two decades. As the annex suggests, and Burrows (2009a) notes, federal tax changes in Canada over this period have generally strengthened incentives for donating assets, as opposed to donating cash or time.

One reason why charitable donations of shares in private companies and real estate were not exempted from capital gains in 2006, when publicly traded securities were, was likely related to concerns about establishing appropriate asset valuations. Valuations, of course, are clear for cash donation and are more straight-forward for publicly listed securities (e.g., shares, bonds, and futures) because they trade on public markets. However, establishing appropriate valuations is more difficult for assets that are not publicly-traded. As such, an important component of any proposed legislation would be to establish clear rules to address potential conflicts of interest in non-arm's length transactions. In this regard, specific recommendations were provided by some witnesses who testified at Committee, and would generally involve one or more independent appraisals.

Presumably, for both of the first two proposals the donor could sell the qualifying asset and then donate (some or all of) the proceeds from the sale to the charity within a reasonably short period of time, such as 30 days, to qualify for the enhanced tax incentives.[11,12]

Burrows (2009a) highlights some of the main policy considerations and trade-offs associated with these two proposals. The main advantages are that they are, "designed to encourage significant incremental giving, expand the capital gains exemption in an equitable fashion... and maximize ease of valuation and management for charities." The main disadvantages are that, "they are not designed for broad-based giving (as) the vast majority of registered charities would find these proposals too complex to implement."

Proposal 3: Extend the carry-forward period from 5 years to 10 years for ecological gift donations

Under the Ecological Gift Program, Canadian landowners can donate ecologically sensitive land, easements and covenants (hereafter 'ecogifts') to conservation charities to be preserved.[13]

[10] Since sales of principal residences are already exempt from capital gains taxes, they would not be impacted by this proposal.

[11] Alternatively, the donor could potentially donate real estate property directly to the charity as an in-kind transfer, where the charity would retain the property for its use. In-kind transfers could pose additional challenges. To qualify as a charitable donation, the property would need to be: 1) used for charitable purposes; and 2) held for a reasonable period of time, or face a tax penalty. Donations of cultural property, for instance, must be held for at least 10 years or face a 30% tax on the fair market value of the property at the time of the sale (unless the sale is made to another cultural institution). For the receiving charities there would be other considerations because along with receiving a new asset, they would also assume a new liability in managing the property, which could involve additional maintenance costs and property taxes.

[12] Another consideration is the tax treatment of capital cost allowances (CCA) on the sale of depreciable assets — which, for example, could arise for donations of multi-unit residential rental properties. In tax returns for previous years, CCA would have generated tax deductions that reduced taxes owing. When the asset is sold, these CCA deductions are added back to the value of the asset when calculating capital gains taxes owing. This so-called 'CCA recapture' is fully-taxable and can generate a tax liability for the donor upon disposition of the asset.

[13] To qualify for tax benefits, ecological gifts must be certified as ecologically sensitive land; the transfer must be voluntary; the recipient must be approved; the fair market value of the land must be

The program began in 1995, and as of April 2012, 941 gifts worth $583 million had been donated, protecting 142,300 hectares of wildlife habitat.

Since 2006, ecogift donations have been exempt from capital gains tax (Annex A). In addition to this tax benefit, the donation's value can be used a non-refundable tax credit for individuals and as a tax deduction for businesses.

Unlike other charitable donation claims which are limited of 75% of net income, there is no limit to the total value of ecological gift donations eligible for the credit or deduction in a tax year. As such, the entire fair market value of the ecogift can be applied, as certified by the Environment Minister. This implies that, aside from the capital gains exemption, the potential tax benefit of ecogifts is the lower of two numbers: 1) the value of the gift; or 2) the total taxes owing in the year of the donation and over the entire carry-forward period, after other non-refundable tax credits/deductions are applied. Box 1 provides a simple example of the tax treatment of an individual donor's tax credit in the year of the donation.

Currently any unused portion of the donation tax credit can be carried forward for up to five years — or 10 years under the proposal. One reason given for extending the carry-forward period is that some donors are unable to use the full tax benefits over the five years after the donation. This generally occurs when the donation is large and/or the donor's taxes owing are low. This is the case in the example in Box 1, were the tax benefits would not likely be exhausted at the end of the five year carry-forward period.

Anecdotal evidence presented to the Committee suggested that some donors could address this issue and effectively extend the tax credit, by dividing large-value land donations into parts and donating these parts over several years. With a longer carry-forward period, it was argued that there would be less of these split donations, which

certified by the Minister of the Environment; and finally, the donation must be made in perpetuity (Environment Canada, 2007).

Box 1: An illustrative ecogift example

An individual donates eligible land to a charity as an ecogift. The fair market value of the land is certified at $200,000 and was previously purchased for $100,000. Assuming no other costs, the capital gain on the land is $100,000. Ecogifts are exempt from capital gains taxes. Assume the individual's taxable income for 2011 is $40,000. In this tax bracket, the federal tax rate is 15%, so $6,000 in federal taxes is owed, before applying any non-refundable federal tax credits. To reduce federal taxes owing to $0, the tax filer could claim $15,341 from the ecogift donation in this year. This amount claimed would provide a total charitable tax credit of $4,421, and in combination with the basic personal exemption, would result in no federal tax owing. The donor could then carry-forward the remaining unclaimed value of the donation for up to five years (of $184,659 which is the original fair market value of $200,000 less the value claimed in 2011 of $15,341).

Certified fair market value of ecogift	$	200,000
Capital gain	$	100,000
equals market value	$	200,000
less adjusted cost base	$	100,000
Taxable capital gain on ecogift ($100,000 at 0%)		$0
Donation limit or eligible amount in 2011	$	200,000
Taxable income in 2011	$	40,000
Federal income tax owing before non-refundable tax credits ($40,000 at 15% tax rate)	$	6,000
Federal non-refundable tax credits	$	6,000
Of which:		
Basic personal exemption ($10,527 at 15% rate)	$	1,579
Federal charitable donation tax credit	$	4,421
First $200 of donation ($200 at 15% rate)	$	30
Donation over $200 (donation claimed in 2011 of $15,341-$200 at 29%)	$	4,391
Amount of donation claimed in 2011	$	15,341
Federal tax owing		$0
Amount of donation available to carry forward	$	184,659

could reduce administrative costs on these types of donations.

In other research, supporters of this proposal argue that extending the carry-forward period has two main advantages. The first is that it is simpler to implement than most other options to increase tax support for environmental conservations. In the view of some advocates, the second benefit of a longer carry-forward period is the potential to "achieve greater equity... for moderate- and low-income tax payers" (Zweibel and Cooper, 2010). Extending the carry-forward period would provide additional incentive for ecogift donations for lower- and moderate- income tax filers. However, a longer carry-forward period would also provide larger potential tax benefits for high-income earners because the tax credit/deduction is more valuable for larger donations and for those who pay more tax.

3. Estimating the Federal Costs of the Proposals

Estimating the cost of the proposed tax changes involves analyzing historical data and developing a set of key assumptions for future periods. Two scenarios are required: a 'baseline' scenario with no tax change; and a 'counterfactual' scenario with the tax change. The difference between the two scenarios is attributed to the policy measure.

3.1 Estimating the Federal Costs of the Proposed Capital Gains Exemptions

Costing Methodology and Key Assumptions

The proposed capital gains exemptions would lower the after-tax cost of charitable donations for two types of assets: private shares and real estate. With a lower relative price of donating, economic theory suggests the following two responses.

First, existing donors would substitute the source of some donations from cash towards private shares and real estate, since these donations would provide additional tax benefits. With this substitution between existing donations, there would be no change in the total value of donations, but the government would provide more tax support. The tax cost to the government on any substituted donations would simply be the capital gains exemptions on these substitutions (because the overall tax credit/deduction is based on the value of donations, which is unchanged with the substitution effect).

The second effect would increase the level of donations, as donors feel better off because their income now goes farther when donating is cheaper. The (dynamic) tax cost to the government on any induced donations is larger because it includes the increased capital gains exemptions as well as the tax credit/deduction on the increased value of donations.
To estimate tax expenditures, the general convention is to assume that the underlying tax base (or in this case, the value of charitable donations) is unaffected by the policy measure, which effectively ignores this second effect or assumes that it is zero.[14] In following this convention, the main cost estimates in this section, therefore, include only the first substitution effect; induced donations are included in the sensitivity analysis. Following similar costing convention, the two capital gains exemptions are estimated separately, although in practice there would likely be interactions between the two measures.[15]

The capital gains exemptions are assumed to begin January 2013. The projection horizon is 2013-2017 to analyze the first five years of implementation.

Finance Canada provided the PBO with analysis of tax filer data for individuals and businesses, covering 2007-2009. This analysis informed many of the key assumptions that drive the results. Specifically, Finance Canada's analysis included

[14] Finance Canada (2011) notes that this assumption "is unlikely to be true in practice in some cases, as the behaviour of beneficiaries of tax expenditures, overall economic activity and other government policies could change along with the specific tax provision."
[15] Finance Canada (2011) also recognises that tax expenditures "interact with each other such that the impact of several tax provisions at once cannot generally be calculated by adding up the estimates and projections for each provision."

data on the specific groups whose donation behaviour would be most directly affected by the policy measures — namely, those who donated to charity and also had a capital gain from the sale of private shares or real estate in the same tax year. Given that these are smaller subsets of the overall population, PBO's main (static) cost estimates in this section answer the following question:

> *How much tax revenue would the federal government forego if these groups fully substituted their existing charitable donations from cash to use these capital gains exempt assets?*

Because these data cover 2007-2009, additional assumptions are required to inflate the estimates to the current period and project them forward (Annex B).

Table 2 reports the key assumptions that underlie the results, which include the average capital gains rates and average marginal effective tax rates for individuals and businesses. In addition, the analysis assumes that if the assets used under the proposal were not donated they would have been sold instead, resulting in capital gains taxes otherwise owing. [16]

Table 2

Key Assumptions Used to Cost the Proposed Capital Gains Exemptions

(Per cent)

Parameter	Assumption
Average capital gains rate for private shares	
Individuals	81.5
Corporations*	36.6
Average capital gains rate for real estate	
Individuals	38.6
Corporations*	52.1
Average marginal effective federal tax rate	
Individuals	22.0
Corporations**	23.1

Assumes full substitution from cash to capital exempt asset donations for the most affected population subgroups.

Source: PBO informed by Finance Canada microdata analysis.
Notes: The reported rates shown are averages over 2007-2009.
*Unfortunately, data limitations did not permit public and private shares to be separated out for corporations.
** This rate, which is a weighted average of small and large business rates, is adjusted down over the projection to account for tax changes since 2009.

Table 3

Estimated Static Federal Tax Expenditure with Capital Gains Exemptions for Charitable Donations of Private Shares and Real Estate

(Millions of current dollars)

	2013	2014	2015	2016	2017	5-Year Total	5-Year Average
Private company shares	52	56	61	66	71	306	61
Real estate	36	39	42	45	49	211	42
Total	89	95	103	111	120	518	104

Source: PBO.

Results

PBO estimates the federal cost of a capital gains exemption on charitable donations of private company shares at roughly $300 million over the first five years of implementation, averaging about $60 million per year. The corresponding cost estimate for a capital gains exemption on real estate donations is just over $200 million over five years, or roughly $40 million per year (Table 3). These estimates are similar to those provided to the Committee by witnesses based on Burrows' (2011) analysis. Specifically, Burrows estimated the cost of the two capital gains exemptions at $50-$65 million per year. When put on a comparable basis,[17] Burrows' cost range for 2013 would be $56-$72 million, which is slightly lower than the point estimate of $89 million reported here. Given the considerable uncertainties involved in this forward-looking costing exercise, these two estimates are reasonably close.

[16] Finally, none of the cost estimates in this paper include impacts on administrative program costs.

[17] Since Burrows' estimate was based on data over 2005-2010 it needs to be inflated to be made comparable to the estimates in this paper.

Taking into account practical considerations, the profile for these tax expenditures would likely be more back-end loaded than depicted above. This is because, as Burrows (2011) notes, given the complexity of these measures, as well as the time needed to monetize and receipt sales of private shares, it would likely take time for donors to respond to these tax changes.

While these cost estimates are roughly comparable, care is required in interpreting the impact on donations received by charities. In the cost estimate presented here, the government would receive less tax revenue because existing donors substitute capital gains exempt assets for cash donations. Effectively the government would provide more tax support for the same level of donations as would occur without the policy change. Of course, one might reasonably expect that new donations are induced by the policy change. The next section addresses this issue.

Implied Cost Range Based on Sensitivity Analysis of Key Assumptions

As sensitivity analysis, PBO considered how these cost estimates change based on various possible elasticities (or inducement effects from the responsiveness of donors to the tax changes). Annex C provides a more thorough discussion of the issues; Table 4 reports results for three different assumptions for the inducement effects.

These tax measures were assumed to lower the overall after-tax price of donations by 25% for private shares and by 19.2% for real estate.[18] With an elasticity of -1.2, which is the simple average from the five available academic studies, there would be new donations of private shares and real estate of 30% and 23% respectively. In such a scenario, the costs over five years would be roughly three times larger than the previous static estimate.

Table 4

Estimated Dynamic Federal Tax Expenditure with Capital Gains Exemptions for Charitable Donations of Private Shares and Real Estate

(Millions of current dollars)

	2013	2014	2015	2016	2017	5-Year Total	5-Year Average
Elasticity of -0.15							
Private company shares	64	69	74	80	87	374	75
Real estate	43	46	49	52	56	246	49
Total	107	115	124	132	142	620	124
Elasticity of -0.5							
Private company shares	91	98	106	114	123	532	106
Real estate	58	62	67	71	76	333	67
Total	149	160	172	185	199	864	173
Elasticity of -1.2							
Private company shares	145	156	168	182	196	847	169
Real estate	88	94	101	108	116	507	101
Total	233	250	269	290	312	1354	271

Source: PBO.
Notes: The elasticity of -0.15 is from Glenday et al. (1986). The average elasticity from the five academic studies cited in Annex C is -1.2.

Finally, these dynamic cost estimates can be used to infer the elasticities that would be needed to increase total donations by a given amount. Based on this analysis, aggregate donations would increase in the range estimated by Burrows (e.g. around $190-$250 million in 2013 dollars) under these proposals if the elasticity is -0.4. However, in this case the average annual cost of these proposals would be about $50 million more than the static cost (i.e, $150 million per year instead of $100 million).

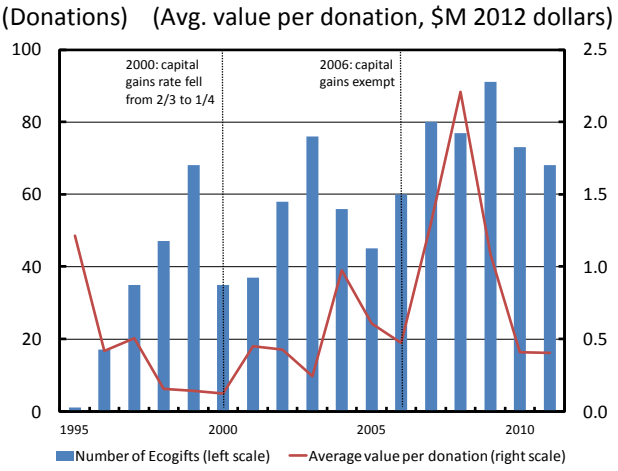
[18] These calculations use average capital gains rates from Finance Canada and additional assumptions for provincial tax rates, as donor would likely view the inclusive federal-provincial after-tax benefits as the relevant price change. The price reduction is larger for private shares because they have a lower average cost base than real estate.

3.2 Estimating the Federal Costs of the Proposed Carry-Forward Period Extension for Ecogifts

Figure 1 shows summary program statistics for the Ecological Gifts Program, which Environment Canada provided to the PBO. Each year on average, there were 60 donations worth a total of $43 million, in inflation adjusted dollars — or roughly $700 thousand per donation.[19] While most donations are made by individuals, the total value of donations from corporations is higher because of much larger-value donations (the average donation by corporations was $2.1 million versus $360 thousand for individuals).

Figure 1

Ecogifts Program Statistics, 1995-2011



Sources: Environment Canada; PBO.

Notes: The conversion to 2012 dollars uses the land component of Statistics Canada's new housing price index rebased to 2012, and assumes that 2012 inflation equals its historical average of 2.1% since 1995.

To provide a sense of the size of the federal government's current tax support, Table 5 reports Finance Canada's tax expenditure estimates for the program. On average over 2006-2011, the government estimates foregone tax revenues of $23 million per year, including components for the tax credit/deduction and capital gains exemption.

[19] The calculation of the average number of annual ecogifts excludes the first two years, as donations were noticeably lower in the program's start-up phase.

Table 5

Ecogifts Tax Expenditure Estimates, Annual Average 2006-2011

(Millions of 2012 dollars)

Total tax expenditure	23
tax credit/deduction	12
reduced inclusion rate for capital gains	10

Source: Finance Canada *Tax Expenditures and Evaluations* reports.

Note: See Figure 1. The total does not sum, due to rounding.

Costing Methodology and Key Assumptions

The extended carry-forward period is modelled assuming implementation in January 2013. The projection horizon is 2013-2023, which allows donations in 2013 to be carried forward 10 years as proposed (Annex D provides a timeline).[20]

Over the projection, both the baseline and counterfactual scenarios assume 60 new donations each year, which would continue the historic average observed since the program began.[21] The average value per donation is assumed to grow at 2.1% per year, based on the average inflation in land prices since the program began.

A stock-flow framework is used to track the maximum potential value of eligible donations over the projection, with and without the extended carry-forward period.

[20] The extended carry-forward period is assumed to apply only to donations made after the policy change. Existing donations would not be eligible as this would require the Government to increase tax support to previously-made donations.

[21] Potential impacts on donation behaviour from this proposal are not included in this static cost estimate. Donation impacts could go in either direction. Committee testimonies suggested that, in the absence of the proposal, some donors with high value land may split land into parts to effectively extend the tax credit. To the extent that this occurs, the proposal could actually reduce the number of donations for this affected group, without changing total donation values. In addition, because ecologically sensitive land is scarce, the number of annual donations could level off or fall at some point in the future. Conversely, because the maximum benefit of the tax credit/donation could effectively double under this proposal, it could induce more donations or higher value donations. See Annex C for more discussion.

Table 6

Estimated Tax Expenditure due to the Extended Carry-Forward Period for Ecogifts

(Millions of current dollars)

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	11-year Total	11-year Average
Estimated federal tax expenditure ($M)	S	S	S	S	S	S	S	3	5	7	9	24	S
Increased number of potential claimants	0	0	0	0	0	0	60	120	180	240	300	900	82
Increased value of potential claimants ($M)	0	0	0	0	0	0	43	87	132	178	225	666	61

Source: PBO.
Notes: The total tax expenditure estimates includes only the tax credit/deduction, assuming no change in donations due to the proposal. The letter "S" signifies less than $2.5 million.

In the baseline scenario, the maximum value of eligible donations that could be claimed equals the total value of all donations made in the previous six years (because claims can occur in the year of the donation and be carried forward for five years).

The key difference under the proposal is that the value of potential claims would increase over time, as donations made in 2013 and later become eligible for the extended 10 year carry-forward period.

Ignoring any induced donation responses to the policy change, the pool of potential claimants would not increase until 2019.[22] In 2019, the proposal would increase the number of eligible claimants by 60 donations per year; the pool of incremental donations would stabilize at 300 donations in 2023.

Results

The tax cost of the proposal is obtained by applying an average historical tax cost to the increased value of potential claims under the proposal (Table 6).[23] The estimated federal cost of extending the carry-forward period for the ecogifts program from 5 years to 10 years is about $24 million over the first 11 years of implementation.

Some dynamics of these cost estimates are worth highlighting. The costs are not material in the initial stages of implementation (until 2020), then they build gradually over time during a transition phase, and finally result in a permanent, on-going component in the future because of the more generous tax support offered by the proposal.[24] Based on this static costing (which ignores any behavioral response), the entire tax expenditure is due to the charitable tax credit/deduction. If there were incremental donations from this proposal, the costs would increase more than proportionately because the induced donations would be eligible for the tax credit/deduction and the capital gains exemption.

[22] In the baseline, donations made in 2013 can be carried forward until 2018. With the proposal, donations made in 2013 can be carried-forward until 2023. Therefore, if there is no change in donation behaviour, the impact of the proposal would not be felt until 2019, when donations from 2013 could be claimed under the proposal, but would have otherwise lapsed.

[23] The tax cost can be thought of as an 'effective tax rate'. In this case the federal tax cost is relative to the 'tax base' of all potentially eligible donations in a given year. The historical average is calculated over 2006-2011 by dividing Finance Canada's estimated tax expenditure estimates for the tax credit/deduction by the total value of eligible donations based on the program data. On average, the tax credit/deduction cost in any given year was 3.9% of the maximum value of eligible ecogifts. Under the proposal, the average tax cost could be lower over the projection because the extension does not increase the cost to the government for the subset of donors who exhaust their tax benefit within the five year carry-forward period.

[24] Based on the above assumptions, after 2023 the permanent on-going total federal cost would be roughly $7 million, expressed in inflation-adjusted (2012) dollars.

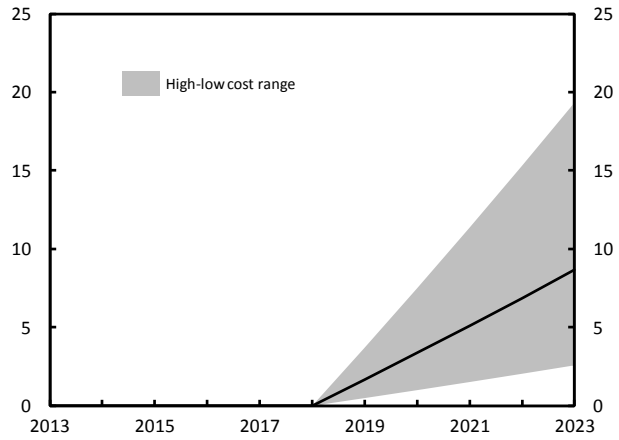
Implied Cost Range Based on Sensitivity Analysis of Key Assumptions

Figure 2 shows the resulting high-low cost range, which was generated by varying the key assumptions for the average tax cost and donation growth. In 2023, the high-low range is between $3 and $19 million. Notwithstanding these results, one could not rule out a temporary increase in donations immediately after the policy was enacted through an announcement effect (as noted in 2006 Annex C, Figure 6). If so, this would result in a temporary spike in cost starting in 2019.

Figure 2

Estimated Cost Range for the Extended Ecogift Carry-Forward Period

(Millions of current dollars)



Source: PBO.

Notes: Assumed average tax cost ranged from the lowest and highest values over 2006-2011. Assumed donations growth over the projection varied from the 25th to 75th percentile from the historical program data. The high and low cost profiles are the maximum and minimum of all of these scenarios respectively.

References

Bekkers, René and Pamala Wiepking (2011), *A Literature Review of Empirical Studies of Philanthropy Eight Mechanisms That Drive Charitable Giving*, Nonprofit and Voluntary Sector Quarterly October 2011 vol. 40 (5), pp. 924-973. http://nvs.sagepub.com/content/40/5/924

Burrows, Malcolm (2009a), *Charitable Tax Incentives in Canada: Overview and Opportunities for Expansion*, The Philanthropist, Vol (22). http://www.thephilanthropist.ca/index.php/phil/article/view/510/515

Burrows, Malcolm (2009b), *Unlocking More Wealth: How to Improve Federal Tax Policy for Canadian Charities*, C.D. Howe Institute e-brief, September 15. http://www.cdhowe.org/pdf/ebrief_86.pdf

Burrows, Malcolm (2011), *Extending the Capital Gains Exemption to Gifts of Private Company Shares and Real Estate*, C.D. Howe Institute Conference on Strengthening Charity Finance in Canada, March 8.

Drummond, Don (2006), *Good News for Donors to Charities: Federal Budget Makes Donating to Charities More Attractive,* TD Economics Special Report, May. http://www.td.com/document/PDF/economics/special/td-economics-special-dd0506-charity.pdf

Environment Canada (2007), *The Ecological Gifts Program Donation and Income Tax Scenarios.* http://www.ec.gc.ca/pde-egp/C7C9F0D9-6C1C-4BE2-98DD-DC349344AEC1/eco-dits-edaf-eng.pdf

Finance Canada (2002), *Tax Expenditures and Evaluations 2002.* http://www.fin.gc.ca/taxexp-depfisc/2002/taxexp02_5-eng.asp

Finance Canada (2011), *Tax Expenditures and Evaluations 2011.*http://www.fin.gc.ca/taxexp-depfisc/2011/taxexp11-eng.pdf

Glenday, Graham, Anil Gupta and Henry Pawlak (1986), *Tax Incentives for Personal Charitable Contributions*, The Review of Economics and Statistics, Vol 68(4), November, pp. 688-693. http://www.jstor.org/stable/10.2307/1924530

Hood, R., Martin, S. and Lars Osberg (1977), *Economic Determinants of Individual Charitable Donations in Canada,* The Canadian Journal of Economics, Vol 10(4), November, pp. 653-669. http://www.jstor.org/sici?sici=0008-4085%28197711%2910%3A4%3C653%3AEDOICD%3E2.0.CO%3B2-O&

Hossain, Belayet and Laura Lamb (2012a), *Does the effectiveness of tax incentives on the decision to give charitable donations vary across donation sectors in Canada?*, Applied Economic Letters, Vol 19, pp. 1487-1491.http://www.tandfonline.com/doi/abs/10.1080/13504851.2011.636016

Hossain, Belayet and Laura Lamb (2012b) *The Effectiveness of Tax Incentives on Charitable Giving Expenditures across Donation Sectors in Canada,* presentation to the Canadian Economics Association Annual Meetings, Calgary, forthcoming June 2012. http://economics.ca/2012/papers/HB0012-1.pdf

Kitchen, Harry (1992), *Determinants of Charitable Donations in Canada: A Comparison Over Time*, Applied Economics 24(7), July, pp. 709-713. http://www.tandfonline.com/doi/abs/10.1080/00036849200000039

Kitchen, Harry and Richard Dalton (1990), *Determinants of charitable donations by families in Canada: a regional analysis*, Applied Economics 22(3), July, pp. 285-299. http://www.tandfonline.com/doi/abs/10.1080/00036849000000081

Parliamentary Budget Office (2012), *PBO Economic and Fiscal Outlook*, April. http://www.parl.gc.ca/PBO-DPB/documents/EFO_April_2012.pdf

Payne, Abigail (2009), *Lending a Hand: How Federal Tax Policy Could Help Get More Cash to More Charities*, C.D. Howe Institute e-brief, November 30. http://www.cdhowe.org/pdf/ebrief_88.pdf

Peloza John and Piers Steel (2005), *The Price Elasticities of Charitable Contributions: A Meta-Analysis*, Journal of Public Policy & Marketing Vol. 24 (2) pp. 260-272. http://www.jstor.org/stable/30000664

Reed, Paul and Kevin Selbee (2001), *The Civic Core in Canada: Disproportionality in Charitable Giving, Volunteering, and Civic Participation*, Nonprofit and Voluntary Sector Quarterly 2001 30 (4), pp. 761-780. http://nvs.sagepub.com/content/30/4/761

Statistics Canada (2012), *Caring Canadian, Involved Canadians, Tables Report, 2010 Canada Survey of Giving, Volunteering and Participating*. http://www.statcan.gc.ca/pub/89-649-x/89-649-x2011001-eng.pdf

Veall, Michael, (2010), *Top Income Shares in Canada: Updates and Extensions*, Working Paper. Available at: http://worthwhile.typepad.com/veall.pdf.

Zweibel, Ellen and Karen J. Cooper (2010), *Charitable Gifts of Conservation Easements: Lessons from the US Experience in Enhancing the Tax Incentive,* Canadian Tax Journal Vol 58(1), pp. 25-61. http://www.ctf.ca/ctfweb/Documents/PDF/2010ctj/10ctj1-zweibel.pdf

Annex A

Selected Tax Changes Affecting Charitable Donations Since 1994

Year	Policy Change	Donations Affected
1994	lowered (from $250 to $200) the threshold for the individual non-refundable charitable donations tax credit of 29%	cash and capital
1995	removed the net income limits on charitable donations of ecologically sensitive land (previously limited to 20% of the donor's net income)	capital
1996	increased (from 20% to 50% of net income) the annual limit on charitable donations claims	cash and capital
	increased (from 20% to 100% of net income) the annual limit on charitable donations claims in the year of death and preceding year	cash and capital
	increased the limit (of 50% by half the amount of taxable capital gains) on the donation of capital property, this effectively lowered capital gains taxes payable on charitable donations of capital to half of the normal inclusion rate	capital
1997	increased (from 50% to 75% of net income) the annual limit on charitable donations claims	cash and capital
	reduced capital gains tax inclusion rate to half the normal rate (at that time from 75% to 37.5%) on donations of publicly-listed securities to charities*	capital
	increased the net income limit by 25% for donations for depreciable assets (e.g. building, equipment), 'CCA recapture'	capital
2000	reduced the general capital gains tax inclusion rate (from 75% to 66.7% in February and from 66.7% to 50% in October)	capital
	reduced the capital gains tax inclusion rate (from 66.7% 33.3%) on charitable donations of ecologically sensitive land	capital
2006	reduced the capital gains tax inclusion rate (from 25% to 0%) on donations of publicly-listed securities to charities	capital
	reduced the capital gains tax inclusion rate (from 25% to 0%) on donations of ecologically sensitive lands	capital
2007	reduced the capital gains tax inclusion rate (from 25% to 0%) on donations of publicly-listed securities to private foundations	capital
2008	reduced the capital gains tax inclusion rate (from 25% to 0%) on donations of unlisted exchangeable securities if exchanged for publicly traded securities and the proceeds are donated to a charity within 30 days of the exchange	capital

Sources: PBO; respective federal budgets.

Notes: * The 1997 reduction on the capital gains inclusion rate for donations of publicly-traded securities was initially subject to a five-year sunset clause and would be terminated if it was not effective in increasing donations and distributing the additional donations fairly among charities. This measure became permanent in 2001.

Annex B

Inflating the Historical Estimates to the Projection Period

Given the historical data, additional assumptions are required to inflate the 2007 starting point estimates to the current period and then grow them over the projection. For this purpose, an auxiliary projection model was developed for charitable donations.[25]

Total charitable donations by individuals are modelled as a function of macroeconomic and demographic factors. The projection uses a panel regression approach that broadly follows Kitchen (1992).[26] The model is:

$$D_{i,t} = \beta_0 + \beta_1 PI_{i,t} + \beta_2 HHassets_t + \beta_3 age_{i,t} + \lambda_t + \eta_i + \varepsilon_{i,t}$$

where $D_{i,t}$ is donations in province or territory *i* at time t; $PI_{i,t}$ is personal income; $HHassets_t$ is household assets in Canada; $age_{i,t}$ is the population aged 55 and over (the age group responsible for larger donations); λ_t is a time dummy for the year 2000 when the capital gains inclusion rate was lowered twice; η_i is an intercept term; and $\varepsilon_{i,t}$ is the error term. Table B1 reports the regression results using donations data for the 13 provinces and territories over 1997-2010.

Over the projection period, three variables drive aggregate individuals' donations:

1) Personal income growth follows the profile for nominal GDP growth from PBO's most recent *Economic and Fiscal Outlook* (PBO, 2012).
2) Household assets are assumed to grow each year at their historic average of 5.8%.
3) The age variable follows Statistics Canada's population projection (medium-growth scenario M1, Cansim Table 052-0005).

Table B1

Panel Regression Results for Individual Charitable Donations

Dependent variable: Δ Log donations	Parameter	Parameter estimate
Independent variables:		
Δ Log personal income	β_1	0.658***
		(0.189)
Δ Log household assets	β_2	0.540***
		(0.134)
Δ Log population age 55 and older	β_3	0.492***
		(0.122)
Dummy for year 2000 capital gains policy change	λ_t	0.033***
		(0.008)
Constant		-0.032***
		(0.011)
Number of observations		165
Provinces and territories included		13
R-squared:		
within		0.22
between		0.74
overall		0.25

Source: PBO.

Notes: Sample period: 1997-2010, annual data. Robust standard errors are shown in parentheses. *** denotes p-value <0.01. The Hausman test recommended the random effects model over the fixed effects alternative, so the model is estimated using generalized least squares.

Given the limited sample period of available data, charitable donations by corporations are assumed to grow at the same rate as individual donations over the projection.

[25] All other nominal levels (e.g. capital gains) are rebased to 2013 and then grow at the assumed 2% rate of inflation.

[26] Given the relatively short sample period and lack of microdata, the panel regression approach was chosen to exploit data for individual provinces and territories to effectively increase the number of observations by a factor of 13. This approach allows for more precise estimates of the model's parameters.

Annex C

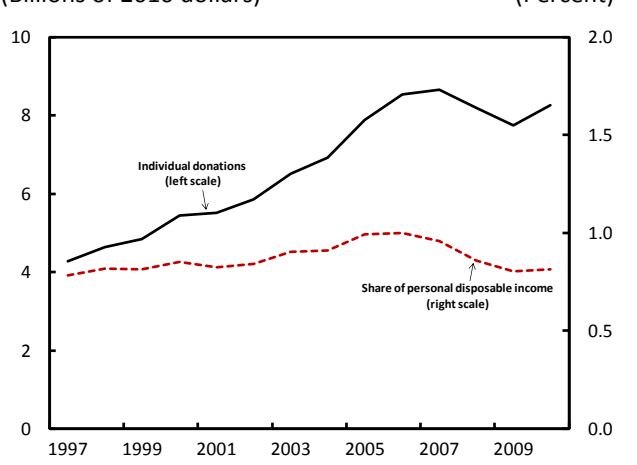
Responses of Charitable Donations to Tax Changes

Longer-Run Trends in Charitable Donations

Figure C1 shows the total value of charitable donations claimed by individuals on their taxes each year over 1997-2010. Over this period, total donations grew by 3.2% per year in inflation-adjusted terms. While various policy changes have increased tax support for charitable giving over this period (Annex A), donations as a share of income remained relatively stable.

Figure C1

Total Charitable Donations by Individuals and Donations Relative to Income

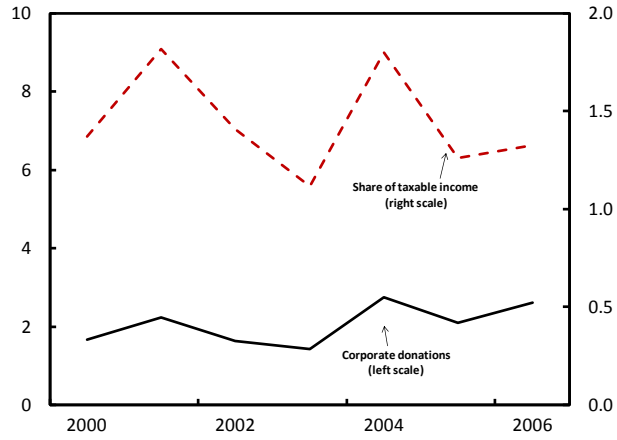


Sources: PBO; Statistics Canada Tables 111-0001 and 326-0021.
Notes: Total donations based on claims by individual tax filers. The conversion to 2010 constant dollars uses the total consumer price index as the deflator, rebased so that 2010=100.

Comparable data for corporations cover a shorter time period (2000-2006),[27] but also showed no upward trend, when expressed as a share of income (Figure C2).

Figure C2

Total Charitable Donations by Corporations and Donations Relative to Income



Sources: PBO; Canada Revenue Agency, Corporate Income Tax Statistics, Table 1.

Figure C3 shows average and median charitable donations claimed per individual tax filer, adjusted for inflation.[28] The average donation claimed grew nearly twice as fast as the median claim over this period. This fact implies that the growth in donations has been primarily driven by larger, 'above-average', donations. The growing share of larger donations in Canada over this period is consistent with policy changes that reduced the after-tax cost of donating assets to charities, as well the faster income growth of higher income earners (Veall, 2010).[29]

[27] Corporate donations tend to be more volatile and represented about one-fifth of total donations over this period.

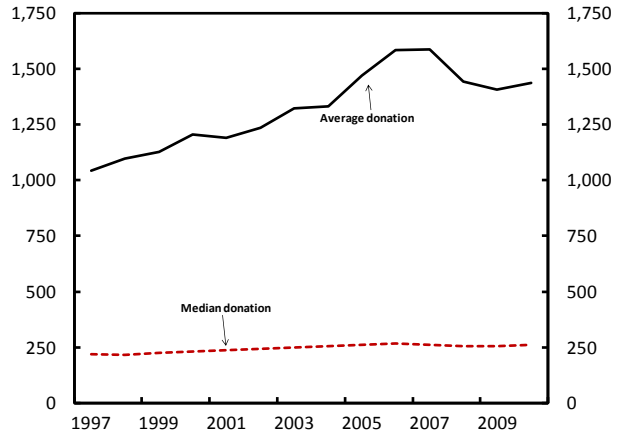
[28] The median splits donations such that half of donors claimed more than this amount, while the other half claimed less than this amount. Because donors can pool donations within a household, the average tax filer claim exceeds the average donation per donor.

[29] Further evidence comes from Payne (2009), which linked aggregated tax filer and census data by postal codes and found that an increasingly disproportionate share of charitable giving in Canada was from tax filers in high income neighbourhoods.

Figure C3

Average and Median Charitable Donations

(2010 constant dollars)

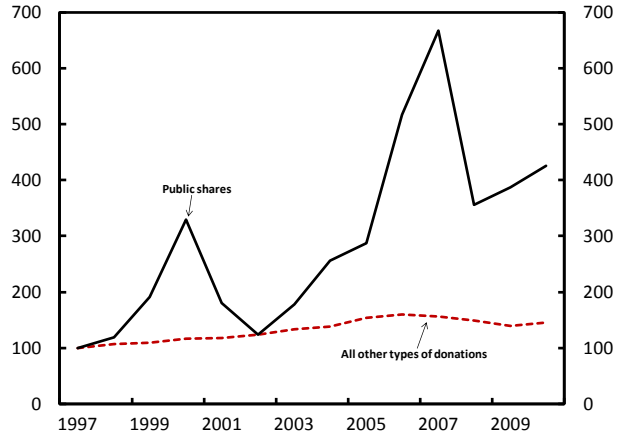


Sources: PBO; Statistics Canada, Tables 111-0001.
Notes: See Figure 1.

Figure C4

Growth in Charitable Donations of Publicly Traded Securites versus All Other Types of Donations

(Index 1997=100)



Sources: PBO; Finance Canada; Drummond (2006); Statistics Canada.
Notes: Nominal values for public securities are from Drummond (2006) for 1997-2004; over 2005-2010 they are inferred from Finance Canada's Tax *Expenditures and Evaluations* reports assuming an individual federal charitable donation credit rate of 29%. The 'other' donations category is then calculated residually from total donations. Both series are converted to constant 2010 dollars using the total consumer price index and then indexed to 100 in 1997.

Public Securities Capital Gains Exemptions

The rising share of larger donations is likely related, in part, to charitable donations of public securities. Such donations — which have benefited from tax changes that lower capital gains taxes — have grown at a much faster pace than all other types of donations (Figure C4). Indeed, real growth in donations of public securities was roughly 12% annually, versus only 3% for all other donations, over 1997-2010.

These previous reductions in capital gains taxes provide some useful context for the proposals that would provide capital gains exemptions for donations of private shares and real estate.

In 1997, the capital gains inclusion rate for charitable donations of publicly traded securities was lowered by one-half (from 75% at that time to 37.5%). Finance Canada (2002) found that individuals' donations of these securities grew significantly faster than the growth in other donations over 1997-2000.

Nonetheless, given the short time period and the lack of data prior to 1997, Finance Canada (2002) stated that "it is difficult to assess the extent to which individuals who would otherwise have made cash donations may have switched to donations of listed securities… furthermore, it is not possible to isolate the influence of the half inclusion rate measure from that of other factors that may have affected donations of securities over 1997 to 2000. Strong economic conditions and positive financial market performances over this period may have stimulated more donations, and larger donations, than could be expected over an entire economic and market cycle."[30]

In 2006, charitable donations of publicly traded securities became fully exempt from capital gains (the inclusion rate fell from 25% to 0%). Once again a large spike occurred in public share donations, but it remains difficult to establish

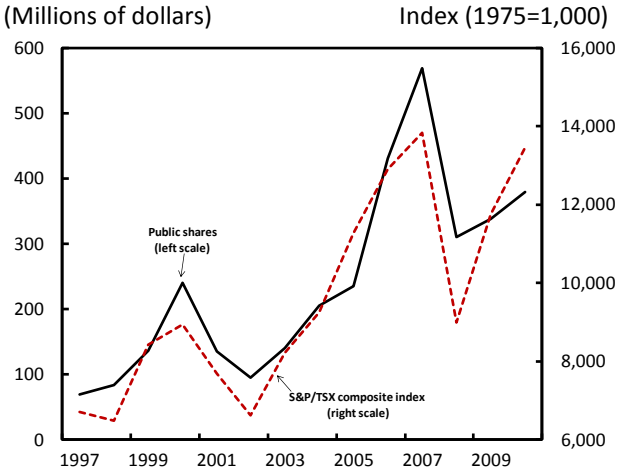
[30] To properly separate out substitution of existing donations versus incremental induced donations would require a baseline projection for donations without the policy change, to control for these and other macroeconomic developments.

cause and effect on the overall level of donations, given additional complicating factors.

Growth in public security donations responds not only to tax changes, but has also been highly-cyclical and evidently tracks the performance of the Canadian stock market quite closely (Figure C5).

Figure C5

Charitable Donations of Publicly Traded Securites by Individuals versus S&P/TSX Composite Index



Sources: PBO; Finance Canada; Drummond (2006); Statistics Canada; Haver Analytics.

Notes: Nominal values for public securities are from Drummond (2006) for 1997-2004; over 2005-2010 they are inferred from Finance Canada's Tax *Expenditures and Evaluations* reports.

Ecogift Capital Gains Exemptions

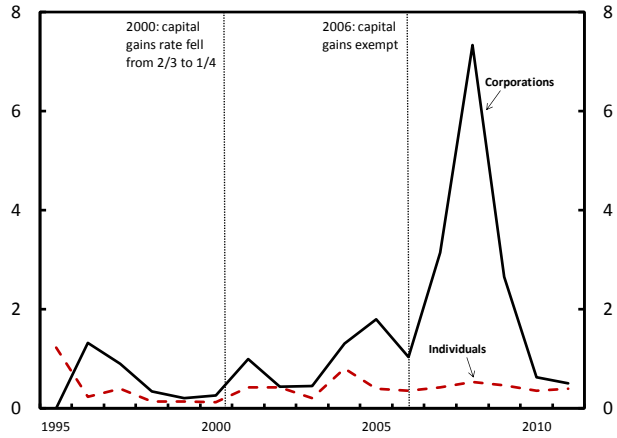
Capital gains reductions also occurred for ecogifts. In 2000, the capital gains inclusion rate on ecogifts fell from two-thirds to one-quarter, and in 2006 ecogifts became capital gains exempt.

While there was a modest uptick in donations after 2006, the most obvious movement in the program data was a spike in the large value corporate donations (Figure C6). At face value, this is stronger evidence of a temporary response to the enhanced tax support. However, the timing is also confounded by the large cyclical economic swings due to the global recession in 2009, so once again

Figure C6

Ecogifts Program Average Value per Donations

(Millions of 2012 dollars)



Sources: Environment Canada; PBO.

Notes: The conversion to 2012 dollars uses the land component of Statistics Canada's new housing price index rebased to 2012, and assuming 2012 inflation equal to its historical average of 2.1% since 1995.

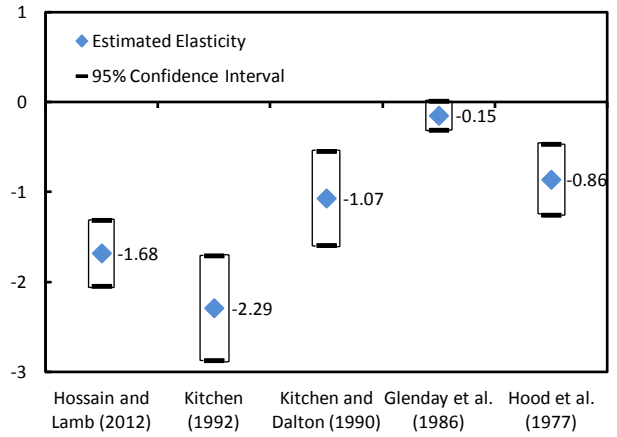
causation would be difficult to establish convincingly without further analysis.

Elasticity Estimates from the Academic Literature

There is some academic research that estimates the responsiveness of charitable donations to tax incentives in Canada. The key parameter is the so-called 'price elasticity of charitable donations', which estimates how responsive donations might be to changes in tax incentives. Figure C7 shows elasticity estimates from the available Canadian studies, along with the 95% confidence intervals for these estimates.

Figure C7

Estimated Elasticities of Canadian Individual's Charitable Donations with Respect to the Price of the Donation, Various Academic Studies



Source: PBO calculations from the studies.
Note: See the references section for the complete paper citations.

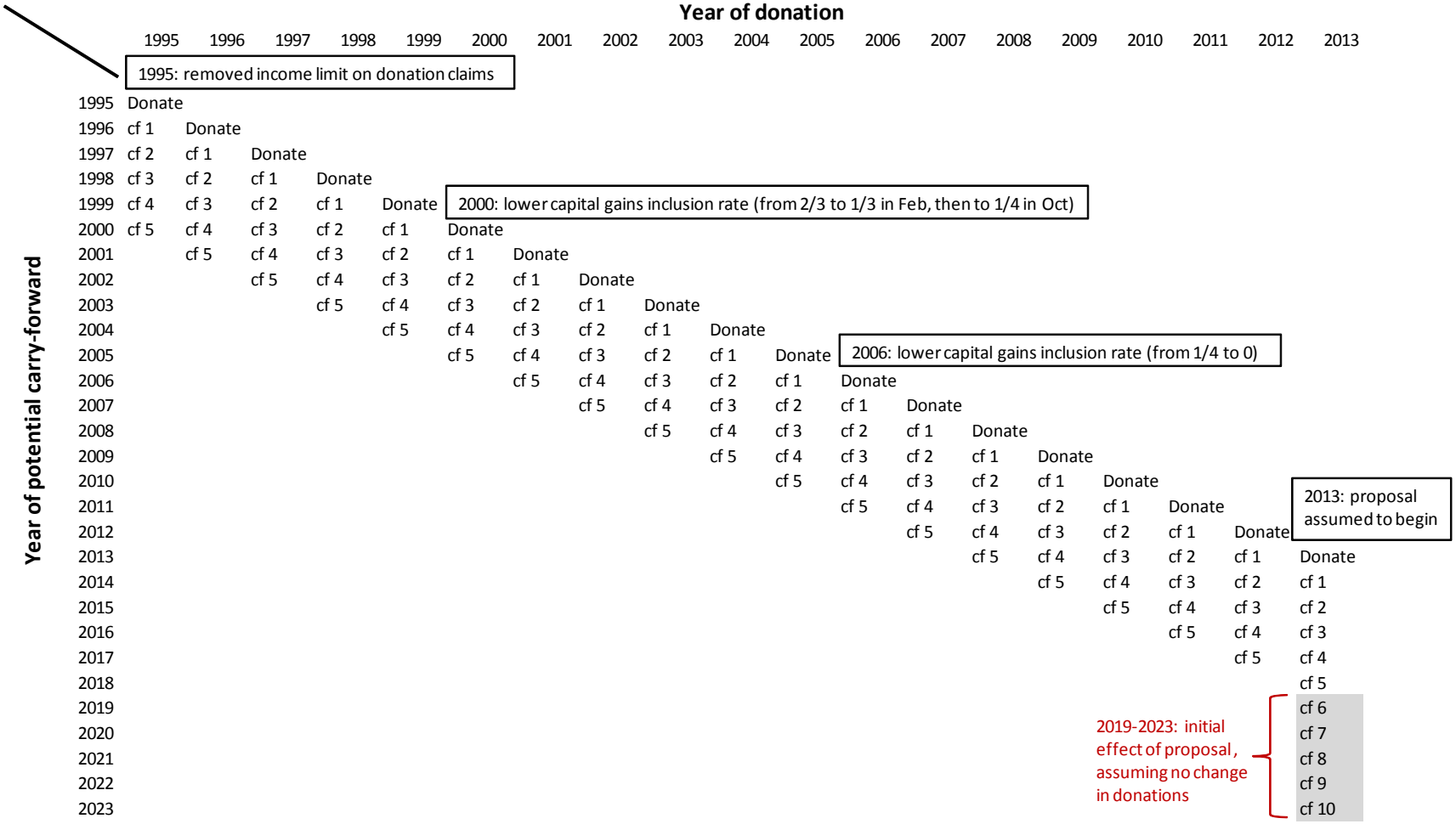
A simple average of these results would imply that a 10% reduction in the tax price of donations would increase overall donations by about 12% (or equivalently an estimated elasticity of -1.2).[31] This result is similar to finding by Peloza and Steel (2005), who analyzed elasticity estimates from 69 studies, most of which were based on U.S. data. They found that the average of price elasticity of –1.1, after removing extreme estimates or "outliers".

One concern with directly applying these estimates in this costing context is that only the most recent Canadian study (Hossain and Lamb, 2012a and 2012b) analyzes the current system with the tax credit for individual donations.[32] Unfortunately, these paper use cross-sectional survey data, which essentially measures what people report they have donated at a particular point in time when asked in a survey. While these estimates are useful, results based on more detailed individual-level tax filer panel data would be preferable to better capture donation behavior as it is actually claimed on taxes over time. Of the remaining Canadian studies, only Glenday et al. (1986) use this type of detailed tax data, and they estimate a much lower elasticity of -0.15. However, they may be some concerns about imposing this estimate — which is based on data for 1978-1980 — to cost a proposal over 30 years later with a different tax system and macroeconomic environment.

[31] These papers also find evidence that the aggregate elasticities reported vary significantly by sector — e.g. , Hossain and Lamb and (2012) and Kitchen (1992) both find that religious sector donations would not be responsive to tax changes — and across the income distribution, with larger responses for higher-income individuals (Glenday et al., 1986). In this context, one might expect that relative to cash donations where tax incentives are likely a minor consideration (Annex E), donations of large-valued assets could be more responsive to tax changes because high-income individuals or corporations would benefit more from any additional tax support.

[32] Canada's tax incentive for individual charitable donations moved from a deduction to a non-refundable tax credit in 1988.

Annex D
Illustrative Timing of the Proposal to Extend the Carry-Forward Period for Ecogifts



Source: PBO.
Note: "cf" indicates the potential to carry-forward the tax credit to future tax years beyond the year of the donation.

Annex E
Survey Data on Charitable Giving in Canada

The *Canada Survey of Giving, Volunteering and Participating* (CSGVP), which is a household survey conducted by Statistics Canada, is an additional source of information on Canadian charitable giving.

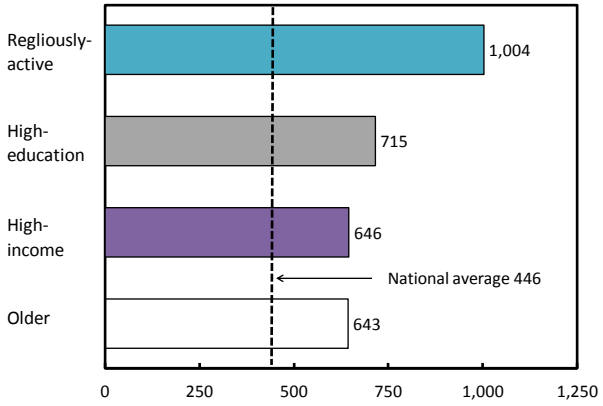
Donor Characteristics

The last three surveys (in 2004, 2007 and 2010), found that reported donations tend to be larger in certain segments of the population, including: older; higher-income;[33] higher-educated; and the religiously-active (Figure E1).

Figure E1

Reported Individuals Charitable Donations by Selected Donor Characteristics, 2010

(2010 dollars)



Source: Statistics Canada 2010 CSGVP.
Notes: Religiously-active = attends weekly religious services.
High-education = holds university degree.
High-income = household income of $100,000 or greater.
Older = 65 years of age or above.
These categories are not mutually-exclusive.

Even though the vast majority of Canadians report making financial charitable donations (84%), charities typically receive most of their donations from a relatively small group of donors (Reed and Selbee, 2001). For example, in 2010 the top 10% of donors contributed 63% of all donations, while the top 25% contributed 83% of all donations.

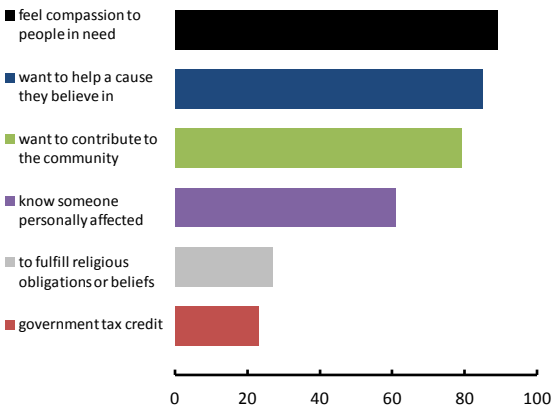
Donor Motivations

The survey also asked donors why they made charitable donations.[34] In the CSGVP, Canadians generally did not cite tax incentives as an important reason for their donations. Instead they answered that they donated because they: felt compassion towards people in need (89% of respondents); wanted to help a cause in which they personally believed (85%); wanted to make a contribution to the community (79%); or knew someone personally affected by the cause (61%) (Figure E2).

Figure E2

Reasons Why Canadian Individuals Made Financial Charitable Donations, 2010

(Percent of respondents)



Source: Statistics Canada 2010 CSGVP.
Notes: Survey respondents were asked whether the above reasons were "important" to them in making a financial donation to a charitable or non-profit organization.

[33] Despite the fact that higher-income households donate more (and are more likely to make a donation), lower-income households generally report donating a larger *share* of their family incomes.

[34] The academic literature identifies various reasons including: awareness of need; response to solicitation; considerations of the costs and benefits of donating; concerns about one's reputation; altruism; psychological benefits, such the 'warm glow' feeling from giving; and a perception that the donor's contribution will make a difference (Bekkers and Wiepking, 2011).

Indeed, a minority of respondents (less than one-quarter) reported that the government tax credit was an important reason for their donation — though roughly half of survey respondents indicated that they would make a larger donation if the government offered a better tax credit.

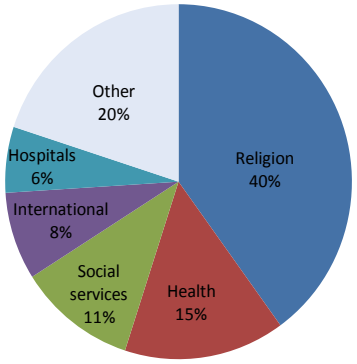
Recipient Characteristics

Finally, the CSGVP provides information on which types of organizations received charitable donations. In 2010, religious organizations received the largest share of overall donations (Figure E3). Health organizations were the second largest recipient, followed by social services organizations, international organizations and hospitals.

Figure E3

Donation Recipients by Type of Charitable or Non-Profit Organization, 2010

(Per cent of total amount donated)



Source: Statistics Canada 2010 CSGVP.