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Tax Incentives for Charitable Donations in Canada with a Focus on the Stretch Tax Credit for Charitable Giving

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1

INTRODUCTION

In many tax systems, charitable donations of money by individuals receive special tax treatment. In Canada, tax payers who make charitable donations are eligible for a non-refundable tax credit. In the U.S., individuals can deduct charitable donations from their taxable income, but only if they itemize their tax returns. The purpose of both approaches is to recognize the special value of charitable deductions to the community as a whole by providing tax relief to individual donors.

In Canada, the 2013 budget included a First-Time Donor's Super Credit, and charities continue to promote a Stretch Tax Credit for Charitable Giving (hereafter, "the Stretch") applying to incremental donations. In the U.S., where debates on public policy often have an impact on the Canadian policy landscape, a number of options have been under discussion, from overall reform of the tax system, to eliminating tax expenditures (including reducing the value of tax deductions through a floor), to changing the current tax deduction approach to that of a tax credit.

A key factor in assessing the desirability of proposed changes — such as the implementation of the Stretch — is the impact a change will have on donations to charities, on the one hand, and on the collection of taxes to fund government expenditures, on the other.¹ The first purpose of this discussion paper is to gather and interpret existing evidence about the impact of tax changes on donations and taxes using a simple economic approach. In this regard, it focuses on two issues influencing donations: the after-tax cost of donations and, to a lesser extent, income and population growth. In addition, it focuses

¹These are not the only factors tax policy must take into account — there are other important issues such as equity and transactions costs. For example, equity considerations have led Canada to adopt a non-refundable credit approach as opposed to a deduction approach.

solely on the donation to charities of money (as opposed to securities and real property) by individuals (as opposed to corporations). This is by far the largest source of donations to charities in both Canada and the U.S. The second purpose of the discussion paper is to summarize some of the other economic and policy-related implications of changes in tax treatment of donations that are important for charities to consider.

2

ASSESSING THE IMPACT OF TAX INCENTIVES FOR CHARITABLE DONATIONS

2.1 The Demand Curve for Charitable Donations, and Demand Elasticity

What happens to donations and to tax revenues when there is a change in a tax rate? This is one of the key questions in determining whether a change in taxation of charitable donations is “worth it” in fiscal terms.

To look at the evidence for this in a systematic way, economists begin by considering a donation to a charity as being similar to the purchase of a good or service. There is a price for a donation — the after-tax cost of giving one dollar. And donations, like any other good or service, will respond to the price (after-tax cost) of making a donation. Demand for donations can be summarized in a demand curve, which isolates and illustrates the relationship between the quantity of a good or service people buy and the price of that good or service.

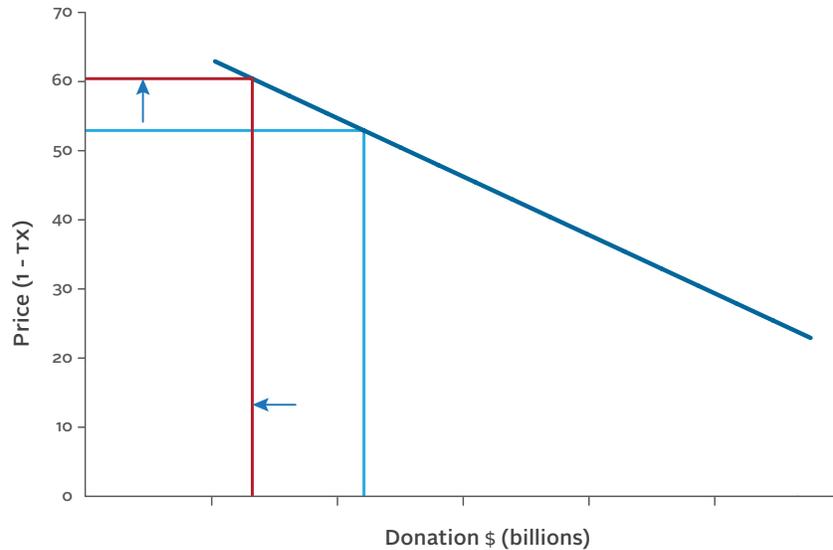
The price of a donation is related in a reciprocal way to the tax rate. For example, if there were no tax relief for a donor, one dollar donated to charity would cost the donor one dollar. If (as is the case in Canada) donors receive a non-refundable tax credit of 29% (for donations over \$200) then the after-tax cost of one dollar donated is \$0.71. The higher the rate of the tax credit, the cheaper it is to make a donation.

Typically, demand curves are downward sloping to the right, showing that the lower the price of a good or service the more of that good or service individuals will wish to buy — or, in the case of donations, showing that the lower the after-tax cost of donations the more people will wish to donate. This is shown

in a highly simplified form in Figure 1, where the amount of donations is on the horizontal axis and the after-tax cost (i.e., price) of donations is on the vertical axis. The figure shows that at an after-tax cost of \$0.71 per dollar, total donations are \$8.2 billion. (This was the level of individual donations in 2008 — used here for comparability with the Parliamentary Budget Office’s analysis of the impact of the Stretch.²)

² Parliamentary Budget Office, *A Cost Estimate of Proposed Amendments to the Income Tax Act to Provide an Enhanced Tax Credit for Charitable Donations*, Ottawa, Canada, August 12, 2010, www.parl.gc.ca/pbo-dpb

FIGURE 1
Donations and tax rates



Now assume that there is a proposal to increase the rate of the tax credit at the federal level to 39%. In the first stage of the analysis, assume that this increase in the rate of tax credit is a general one, applying to all tax payers. Key policy issues in assessing the impact of this proposal include:

- What will happen to donations?
- What will happen to tax receipts?

The price elasticity of demand (or in this case the tax elasticity of donations) shows what will happen to these variables when there is a change in the tax credit. Elasticities are numbers which show how responsive demand is to a change in price. They are defined simply as:

$$E = \frac{\% \text{ change in quantity demanded}}{\% \text{ change in price}}$$

Or in the case of the analysis here,

$$E = \frac{\% \text{ change in donations}}{\% \text{ change in after - tax cost of donations}}$$

³ Because the relationship between price and demand is inverse — as price goes up, demand goes down — elasticities are negative numbers. However the convention in economics is to use absolute values.

Elasticities will vary from good to good depending on their specific characteristics. Demand for a product is said to be price inelastic if the percentage change in quantity demanded is less than the percentage change in price (which means that the absolute numerical value of the elasticity is less than 1³). Demand is said to be price elastic if the percentage change in quantity demanded exceeds the percentage change in price (the absolute value is greater than 1). Whether donations are inelastic, elastic or somewhere in the middle determines how responsive donations will be to changes in taxation, and what the corresponding impacts on tax revenues will be.

Economists have made many efforts to measure the tax elasticity of charitable donations, and the estimates vary widely. In the numerical examples considered in the rest of this section, we use two elasticity estimates in order to define a reasonable range of outcomes. These are, respectively, 0.2 and 1.26, the same estimates used in the Parliamentary Budget Office (PBO) analysis referred to above.

2.2 The Impact of a Change in the Tax Credit Rate

Assume that the tax credit rate for charitable donations increases from 29% to 39%. This represents a 14.1% decline in the after-tax cost of making a donation. Table 1 on the next page shows the impact on donations and tax revenues a year later — on the assumption that the change in rates is the only factor affecting donations over the year.

The 2008 level of charitable donations (row 1) at a 29% credit rate costs the Treasury \$2.38 billion (row 2). The percentage decrease in the cost of a donation when the credit rate rises to 39% is 14.1% (row 3), calculated as $(.10/.71)$ multiplied by 100. Row 4 shows the two elasticities assumed for illustrative purposes here. Row 5 shows the percentage change in donations associated with each of the elasticities; these are calculated as (E) multiplied by the percentage change in the cost of a donation, from the basic elasticity equation given above. Rows 6 through 10 show, respectively, the new levels of donations, the increases in donations, the cost to the Treasury of the new credit rate, the increase in that cost, and the percentage change in that cost.

Note the very high cost to the Treasury of a general change to the tax credit rate. This is because it provides a windfall gain (row 11) to donors for donations they were going to make anyway. A general increase in the credit rate is a very blunt instrument indeed, which is why targeted proposals such as the Stretch are designed to focus on incremental behaviour. Note also that a large drop in the after-tax cost of a donation induces large increases in donations, even with a very low elasticity. Finally, note the sensitivity of the results to the elasticity estimates. Elasticities matter — a lot.

TABLE 1
Impact on Donations of
Increasing the Tax Credit
Rate from 29% to 39%

1.	Donations with 29% tax credit rate	\$8.2 billion	
2.	Cost to Treasury of the 29% rate	\$2.38 billion	
3.	Percentage decrease in cost of a donation	14.1	
4.	Assumed elasticity of donations	0.2	1.26
5.	Percentage change in donations	2.8%	17.8%
6.	Donations with 39% tax credit	\$8.43 billion	\$9.66 billion
7.	Increase in donations	\$230 million	\$1.46 billion
8.	Cost to Treasury of the 39% rate	\$3.28 billion	\$3.77 billion
9.	Increase in cost to Treasury	\$900 million	\$1.39 billion
10.	Percentage change in cost to Treasury	37.8%	58.4%
11.	Windfall gain to donors	\$820 million	\$820 million

2.3 The Impact of the Stretch Tax Credit for Charitable Giving

The Stretch is a more targeted proposal that involves establishing a new and more generous tax credit rate of 39%, but only for those donors who increase their donations over and above what they had done on average over the previous five years.

The Stretch is intended to ensure that:

- Existing donors who increase their donations will be rewarded, but only on the amount of increase.
- New donors will be rewarded on the new donations because, by definition, these will be incremental.
- Existing donors who maintain their previous levels of donation will be no more or less well off with respect to tax treatment.

At first glance, this appears to be quite simple. Referring again to Table 1, the induced increase in donations would range between \$230 million and \$1.46 billion, depending on the elasticities. The cost to the Treasury would be much lower, however, since the 39% credit rate would apply only to incremental donations. There would be no windfall gain for donors on existing donations.

It is not quite that simple. Complications arise because of the fact that charitable donations increase over time because the number of donors increases and income grows. Table 2 illustrates this point.

TABLE 2

Charitable Donations,
Donors, and Gross
Domestic Product,
1997 and 2012

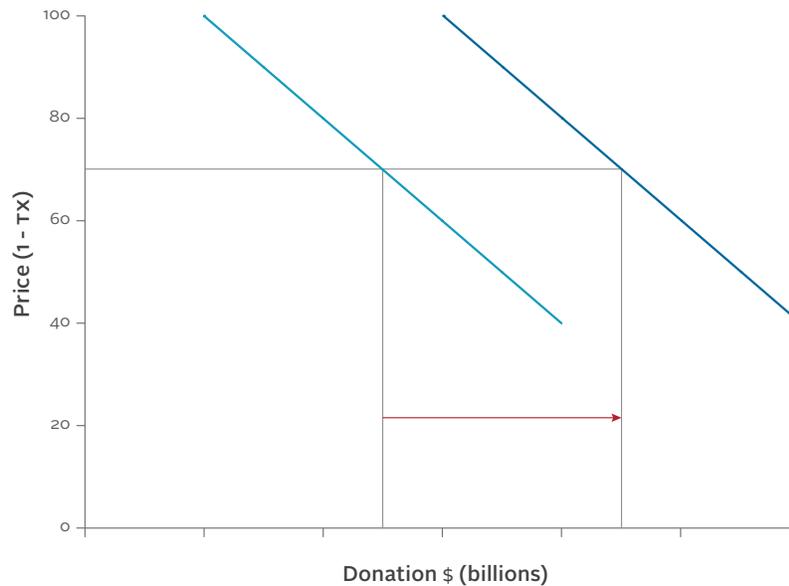
	1997	2012	% change
Number of tax filers	20,559,980	25,159,950	22.4
Number of donors	5,285,560	5,631,420	6.5
Charitable donations	\$4.27 billion	\$8.31 billion	94.6
GDP	\$901.4 billion	\$1,879.5 billion	108.5
Average donation	\$808	\$1,476	82.7

Source
Statistics Canada,
Tables 111-0001
and 380-0064

The table shows that over the 15-year period 1997 to 2012, the number of tax filers grew by 22.6%, while the number of filers who claimed charitable donations grew by 6.5%. Charitable donations nearly doubled in size, from \$4.27 billion to \$8.31 billion. Gross domestic product more than doubled, from \$901.4 billion to \$1,879.5 billion. The average size of donations claimed by donors rose by 82.7%.

In terms of the analysis here, the effect of increases in the number of donors and in incomes is to shift the demand curve for charitable donations to the right — which indicates that for any given after-tax cost of donations, the level of donations will be higher. Figure 2 illustrates this point.

FIGURE 2
Donations and
income levels



Again for comparability with the estimates in the PBO paper, 2008 is used as the base year, and PBO's assumptions about income and population growth are used in the analysis:

- The number of donors increases by 1.5% (low growth scenario) or 2.5% (high growth scenario) annually.
- Income increases by 0.5% (low growth scenario) or 2.5% (high growth scenario) annually.
- Income increases translate into one-for-one increases in the average charitable donation.

Table 3 on the next page shows how the average donation and the number of donors claiming the tax credit would change between 2008 and 2009 under these alternative assumptions. The average donation would range from a low of \$1,421 to a high of \$1,449, and the number of donors would range from 5.89 to 5.95 million. The table also defines the range within which total donations in 2009 would fall without any change in the tax credit: from a low of \$8.37 billion under the low donor growth/low income growth scenarios, to a high of \$8.62 billion under the high donor growth/high income growth scenarios.

TABLE 3

The Average Donation and the Number of Donors, 2008 and 2009

	2008	2009
Average donation	\$1,414	
Average donation, 0.5% income growth		\$1,421
Average donation, 2.5% income growth		\$1,449
Number of donors	5.8 million	
Number of donors, 1.5% growth		5.89 million
Number of donors, 2.5% growth		5.95 million
Total donations	\$8.2 billion	
Total donations (low donor and income growth)		\$8.37 billion
Total donations (high donor and income growth)		\$8.62 billion

The next step is to calculate the increase in donations induced by the introduction of the Stretch, and the associated cost to the Treasury, by applying the same two elasticities as in the previous section to the low and high estimates of 2009 donations developed in Table 3. The resulting estimates are shown in Table 4, with the scenarios numbered 1 (low elasticity, low donor and income growth) through 4 (high elasticity and high donor and income growth).

TABLE 4
Stretch-related Increases
in Donations and Related
Forgone Taxes

Scenario	Elasticity	2009 donations (no Stretch)	Stretch-induced % increase in donations	Increase in donations	Forgone taxes (39% credit rate)
1	0.2	\$8.37 billion	2.8%	\$234 million	\$91 million
2	0.2	\$8.62 billion	2.8%	\$241 million	\$94 million
3	1.26	\$8.37 billion	17.8%	\$1.49 billion	\$581 million
4	1.26	\$8.62 billion	17.8%	\$1.53 billion	\$597 million

In addition, the analysis has to incorporate the tax treatment of the increase in donations which would have occurred in the absence of the Stretch, driven by income and population growth. These increases in donations would have received a tax credit of 29% in the absence of the Stretch. Because the Stretch does not discriminate between naturally occurring and induced donation increases, these now receive a tax credit of 39%. This represents a windfall of 10% to this class of donors, and a corresponding cost to the Treasury. Under the low donor and income growth scenarios, donations increase by \$170 million to \$8.37 billion; therefore the cost to the Treasury is \$17 million. Under the high donor and income growth scenarios, donations increase by \$420 million to \$8.62 billion, and thus the cost to the Treasury is \$42 million.

Table 5 summarizes the analysis, with a focus on the tax revenue implications of the introduction of the Stretch. The scenarios are those as defined and numbered in Table 4.

TABLE 5
Summary of Stretch-
induced and Natural
Changes in Donations
and Tax Revenues

	Scenario 1	Scenario 2	Scenario 3	Scenario 4
Increases in donations induced (Table 4)	\$234 million	\$241 million	\$1.49 billion	\$1.53 billion
Forgone taxes, 39% credit rate (Table 4)	\$91 million	\$94 million	\$581 million	\$597 million
Natural increase in donations	\$170 million	\$420 million	\$170 million	\$420 million
Forgone taxes on natural increase in donations, 10% credit rate	\$17 million	\$42 million	\$17 million	\$42 million
Total forgone taxes resulting from introduction of the Stretch	\$108 million	\$136 million	\$598 million	\$639 million

In all of the scenarios, the introduction of the Stretch has a significant cost to the Treasury, even with a very low elasticity. In most cases, the revenue forgone on the extra donations induced by the Stretch account for by far the largest share of the total forgone revenue. This is not quite the case under Scenario 2, the low elasticity and high donor and income growth case, in which the \$42 million forgone on the natural increase in donations accounts for slightly more than 30% of total revenue forgone.

3

COMPARISON WITH RESULTS FROM THE PARLIAMENTARY BUDGET OFFICE STUDY

The results presented here differ in a significant way — by a factor of ten or more — from the results presented by the Parliamentary Budget Office in its study of the impacts of the stretch tax credit. Table 6 shows these differences in summary form.

TABLE 6
Summary Comparison with PBO Results Forgone Tax Revenue from Introduction of Stretch

Scenario	low population growth/ low income growth/ low elasticity	high population growth/ high income growth/ high elasticity
	\$ Millions	\$Millions
This paper	108	639
PBO paper	10	40

There can be two possible explanations for the difference in results. First, the two papers may differ in the assumptions on which calculations are based. This is not this case here:

- The baseline data on contributions, donors, and so on, is the same for the two papers (see Table 1) as is the base year for calculations
- The assumptions about population growth, income growth and about elasticities are the same
- Assumptions about the design of the stretch tax credit are the same, with one exception. The PBO study assumes a lifetime cap on the stretch of \$10,000. However, nowhere does this cap actually figure in the PBO results, so it is non material

Second, results may differ because of the approach — the way the assumptions are used to create results. Here the papers differ sharply:

- The PBO approach uses the median donation as a base in a somewhat confusing way. This paper uses the mean donation which, multiplied by the population of donors, gives a number identical to total donations on which to base calculations. The difference between mean and median in the distribution of donors is unusually large — the mean donation is 5.65 times the median. This explains about one half of the difference between the two papers' results.
- Differences in calculation methods used or errors in calculation explain the balance of the discrepancy between the two sets of results. Details are available from the authors of this paper.

4

CONCLUSIONS

This discussion paper is an initial attempt at quantifying the impacts of a stretch tax credit on donations and on income tax revenue to the federal government. It shows that

- From an economic point of view, the Stretch is a price change — a 14.1 % reduction in the after-tax cost of donations.
- A 14.1% reduction is a significant change applied to a significant base — donations totalled over \$8 billion in 2012. It is to be expected that the resulting changes in donations and tax revenues will be large.
- Results are crucially dependent on how responsive donations are to changes in tax treatment. The higher the elasticity estimate, the larger is the increase in donations induced by the tax change and the larger the decline in tax revenues.⁴
- A detailed study of the Stretch will depend upon the details of tax design — is there a cap on the Stretch, for example, and how will it work? A cap will apply disproportionately to higher income donors. This will tend to reduce the impacts of the Stretch on both donations and tax revenues since higher income earners contribute the bulk of donations. For initial simplicity and for direct comparison with the PBO study, this paper assumes that there is no cap. Nor has it taken into account the role of provincial tax taxes.

⁴ Elasticity estimates are uncertain — the empirical literature has recently tended toward rather lower estimates of elasticity.

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