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REDISTRIBUTION OF INCOME: POLICY DIRECTIONS

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SUMMARY

Poverty and rising income inequality in Canada have brought demands for improved government action on redistribution. Unfortunately, such pleas risk being overshadowed by a looming fiscal crunch as the baby boomers retire. An expanding population of seniors will add at least one percent annually to both growing health and OAS/GIS costs so that, absent meaningful change, other spending will have to be slashed by an average of 20.2 percent by 2032 if total spending and revenues are not to rise relative to GDP. For Canada's tax-transfer system to keep fulfilling its redistributive role, a fundamental rethink is required. With non-seniors spending being squeezed, some changes in tax mix, moderate revenue increases and refined targeting of transfers will be needed to protect the system's progressive nature. Increasing personal income tax and reducing property tax by an offsetting amount would improve redistribution without raising taxes. More revenue could be obtained without severe distortions via a capital transfer tax, the elimination of boutique credits aimed at niche beneficiaries, or perhaps a dual income tax which exacts more from labor than capital income. Improvements to existing transfer programs are another way forward. The conversion of EI to a purely insurance basis, freeing up funds to support redistribution via refundable credits is a possibility. Another cost-saver involves removing the indexation of the OAS/GIS income threshold and allowing its real value to decline, making more recipients subject to clawbacks. Whichever course governments pursue, revamping Canada's tax-transfer system will be a delicate and difficult task. This paper explores the policy choices available, and makes it clear that time is not on our side.

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INTRODUCTION

There has been renewed discussion of policy directions for the redistribution of income via the tax-transfer system in Canada. Redistribution is multi-faceted. It includes both vertical and horizontal elements, as well as both unintended and overt redistribution. All elements of the tax and expenditure systems of government can, in principle, affect the distribution of income. The parts of this system that have redistribution as one of their explicit purposes are numerous and interact in complex ways. Thus merely understanding how the public sector redistributes income is a major challenge. And if we decide we're not happy with how this is being done, working out a redesign is a large job.

Unfortunately, we have reasons to believe that sticking with the status quo on income redistribution is not an option. Income inequality has been trending upwards for the last 25 years in Canada, although not as fast as in the United States, both before taxes and transfers and after. Poverty remains a persistent problem, with 12 per cent of all individuals and 14 per cent of those aged less than 18 living below Statistics Canada's low-income cut-off since 2011.[1] And, as we shall find, despite increased efforts in certain areas and improvements in some programs, the overall redistributive efforts of governments in Canada have declined at the same time that inequality in market incomes has been increasing. There are therefore understandable pressures for government to do more redistribution, and it is well worth examining the possibilities for action on this front.

A further source of urgency lies in a fiscal crunch that has long been developing, but is now accelerating and will do so for the next 20 years or so. This crunch has two elements. On the one hand, public tolerance for tax increases has been low for some time and doesn't seem likely to rebound much soon.[2] On the other hand, the rate of increase in spending on health care, which is already high, is set to increase. If current programs and policies remain in place, health-care spending will increase even more rapidly as a fraction of GDP and government spending than it has in the last decade, and will do so for at least 20 years.[3] With the oldest baby boomers having reached age 65 in 2010, the rate of increase in that spending is predicted to rise by about one full percentage point per year for the foreseeable future.[4]

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1 CANSIM Table 2020802, market basket measure, 2011 base.

2 A caveat is that in the November 6th 2012 polling in the US, Californians approved tax increases. Since California was in the vanguard of the taxpayer revolt that began in the 1980s, and has steadfastly resisted tax increases ever since, the recent result has been taken by some as a harbinger of things to come.

3 See Emery, J.C. Herbert, David Still and Tom Cottrell (2012), "Can we avoid a sick fiscal future? The non-sustainability of health-care spending with an aging population," The School of Public Policy, University of Calgary, *SPP Research Papers* 5(31), October.

4 Davies, James B. and Keith Horner (2012),"Transfer Programs," in Heather Kerr, Ken McKenzie, and Jack Mintz (eds.), *Tax Policy in Canada*. Canadian Tax Foundation, Toronto: pp. 13:1-13:41.

With tax increases largely off the table and health-care spending relentlessly increasing, other forms of public spending must decrease both relatively and perhaps also absolutely. Included in the spending that will be squeezed are our major transfer programs, which include Employment Insurance (EI), the Canada Child Tax Benefit (CCTB), the GST and HST tax credits, the Working Income Tax Benefit (WITB), social assistance (SA), Old Age Security/Guaranteed Income Supplement (OAS/GIS), and the unfunded portion of Canada and Quebec Pension Plan (CPP/QPP) benefits. The crunch affecting these programs is worsened by the fact that, with current programs and policies, OAS/GIS and CPP/QPP spending is set to rise as each new wave of baby boomers reaches age 65.[5]

This paper will argue that a clear implication of the fiscal crunch is that the aggregate size of transfers, relative to total expenditures and GDP, will have to fall. This suggests a need to focus on structural changes in the way we deliver redistribution if we wish to maintain the equalizing impact of the system. Almost inescapably, we will need to increase the targeting of transfer programs. Notable moves in that direction have already been made, with the universal Family Allowance (FA) having been replaced by the targeted Child Tax Benefit (CTB) — in turn replaced by the Canada Child Tax Benefit (CCTB) — and with the OAS clawback introduced in 1989. However, the OAS phase-out begins at such a high income level ($67,668 in 2011) that relatively few pensioners are affected, and we pay out significant benefits to non-poor individuals and families, for example through the universal child care benefit (UCCB). Unless we are going to increase taxes, transfers to the non-poor will have to be reduced if transfers to the poor themselves are to be maintained.

Increased targeting of transfers raises the progressivity of the transfer system. I argue here that if the aggregate size of transfers must fall, at least relative to GDP, then we can compensate by increasing their progressivity. This could include changes to refundable tax credits. On the tax side, there are complementary steps that can be taken, but the problem cannot be addressed exclusively by attempting to increase the progressivity of the tax system. Many of the poor do not currently bear an income tax burden, so that increasing the progressivity of our most redistributive tax, the PIT, cannot help them. Changes to payroll taxes, including EI and CPP/QPP contributions could also help to some extent. Finally, some shifting of the tax mix away from taxes with regressive incidence toward more progressive taxes can make a contribution.

The remainder of this paper is organized as follows. The next section discusses what we know, and don't know, about the overall income-redistribution effects of taxes and government spending, both intended and unintended. We will then look at the impact of the overt or intentional redistribution system, paying attention to how its equalizing impact has ebbed and flowed over the last few decades. A subsequent section of this paper examines the current structure of the transfer system. Comments on policy directions are made in each section, leading to a fuller policy discussion in the final section.

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[5] In the case of OAS/GIS this is mitigated by the planned increased in eligibility age from 65 to 67, to be phased in between 2023 and 2029. Even with this adjustment however, it is estimated here that OAS/GIS spending will increase from 2.2 per cent of GDP in 2012 to 2.5 per cent in 2032, if other changes are not made.

OVERALL INCIDENCE OF THE TAX/TRANSFER SYSTEM

The comprehensive study of income redistribution by government in Canada was pioneered by Irwin Gillespie in a series of publications[6] and carried on in cooperation with his students for a time[7] in what are, somewhat misleadingly, known as "partial equilibrium" studies of tax and expenditure incidence.[8] This work has recently been updated by Lee,[9] who finds that the broad results of the earlier results continue to apply. (See Kesselman and Cheung for a thorough review of incidence studies, their implications and limitations.[10])

The well-known stylized facts from the earlier studies of tax and expenditure incidence, not only in Canada but in the US as well[11] are that, on "middle of the road" shifting hypotheses, the tax system as a whole is mildly progressive and the expenditure system is highly progressive. While the personal income tax system is strongly progressive, sales, payroll and property taxes are regressive in this framework and corporate tax is only mildly progressive. On the expenditure side, transfer programs like Old Age Security, Employment Insurance, child benefits, and social assistance, make up a large fraction of government spending, accounting for its strong progressivity.

The results of tax and expenditure incidence studies are sensitive to shifting hypotheses, and have also been criticized for using an annual rather than lifetime framework. It turns out that in a lifetime framework, the overall results for tax incidence are little changed because while personal income tax becomes less progressive, the other tax elements become less regressive, and the tax system as a whole is still mildly progressive.[12] (Lifetime incidence on the expenditure side does not appear to have been studied quantitatively.) However, these results are certainly sensitive to shifting hypotheses. What one believes about shifting affects the perception of the nature and extent of income redistribution.

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6 See for example Gillespie, W. Irwin (1976), "On the Redistribution of Income in Canada," Canadian Tax Journal 24(4), 419-50 and Gillespie, W. Irwin (1980), T*he Redistribution of Income in Canada*, Ottawa: Gage.

7 See Vermaeten, Frank, W. Irwin Gillespie, and Arndt Vermaeten (1994), "Tax Incidence in Canada," *Canadian Tax Journal* 42(2): 348-416 and Vermaeten, Arndt, W. Irwin Gillespie and Frank Vermaeten (1995), "Who Paid the Taxes in Canada, 1951-1988?" *Canadian Public Policy* 21(3): 317-43.

8 The term "partial equilibrium" is misleading because the shifting assumptions embodied in these studies are for the most part based on general equilibrium thinking. Nevertheless it is true that the authors of these studies usually cannot exhibit a single general equilibrium model that predicts precisely all the shifting patterns that are assumed.

9 Lee, Marc (2007), "Eroding Tax Fairness: Tax Incidence in Canada, 1990-2005," Toronto: Canadian Centre for Policy Alternatives.

10 Kesselman, R. Jonathan and Ron Cheung (2004), "Tax Incidence, Progressivity and Inequality in Canada," *Canadian Tax Journal* 52(3): 709-789.

11 Pechman, Joseph A. and Benjamin A. Okner (1974), *Who Bears the Tax Burden?* Washington: Brookings Institution; Pechman, Joseph A. (1985), *Who Paid the Taxes*, *1966-1985?* Washington: Brookings Institution.

12 Davies, James B., France St-Hilaire and John Whalley (1984), "Some Calculations of Lifetime Tax Incidence," *American Economic Review* 74(4)

There are three basic factors that affect conjectures about tax shifting. One is whether one believes that the economy can be modelled reasonably well as if it were perfectly competitive. In this discussion, I will use competitive shifting hypotheses unless indicated otherwise. Another basic factor is the degree of openness. At one extreme, which seemed a reasonable approximation at least for the US 40 or 50 years ago, we have the closed economy. At the other we have the small open economy. Canada is certainly not a closed economy, and for many purposes can be treated as a small open economy. Third, there is the mobility of factors. In general capital is much more mobile internationally than labour, which implies that in many cases capital taxes will be shifted onto labour and other immobile factors.

The only incidence hypothesis that has remained little challenged is that taxes on labour are borne by labour. This brings some clarity since it means that payroll taxes and the bulk of PIT can be treated as not shifted. One caveat in the case of PIT is that some kinds of highly qualified personnel, for example nurses and physicians, some academics, executives, top research and development staff and so on, are quite mobile internationally. This suggests, for example, that raising PIT in the upper range will induce some exits, followed by a bidding up of salaries in the affected occupations —that is a shifting of the increased tax burden onto someone else. Another caveat is that in the long run, people can reduce their stocks of both human and non-human capital in response to heavier PIT, again resulting in a shifting of burdens.

While there has been a kind of truce in the treatment of payroll taxes and PIT in incidence debates, the same is not true for the other three major tax groups: sales and excise taxes, property tax, and corporate income tax (CIT).

In annual data, ignoring GST and HST credits, sales and excise taxes appear to be highly regressive.[13] This happens, despite the fact that sales taxes are not levied on food and some other necessities, because those who have low income in any given year also, on average, consume considerably more than their income, and the opposite is true for high-income groups. Much of this effect is removed in lifetime incidence analysis, since many of those in the lowest or highest income groups are only there temporarily.[14] Another mitigating factor is that more than half the income of the bottom quintile is from transfer payments, which are either explicitly or implicitly indexed.[15] When sales and excise taxes are increased, the CPI goes up and the transfers go up too. The conclusion is that, in the short run, sales and excise taxes are not borne by consumption in general, but by that portion of private (i.e., non-transfer) income that is consumed.

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[13] Lee (2007) op. cit.

[14] Davies et al. (2004) op. cit.

[15] Browning, Edgar K. (1978), "The Burden of Taxation," *Journal of Political Economy* 86(4): 649-71; Browning, Edgar K. and William R. Johnson (1979), *The Distribution of the Tax Burden*, Washington: American Enterprise Institute.

To the extent that property tax falls on land *per se*, which is in fixed supply, it cannot be shifted. However, most of the value of real estate is in structures and improvements to the land, and property taxes levied on this value fall on a particular kind of *capital*. In the short run this form of capital is in fixed supply, and therefore has to bear the burden of the property tax. However, in the long run capital is mobile between sectors, and the analysis of the incidence of property tax becomes akin to that of CIT, which is also a tax on capital in a particular part — the corporate part — of the economy. Harberger[16] analyzed the incidence of such taxes when capital was mobile between sectors but in fixed aggregate supply, finding that for US parameters and data capital itself bore approximately 100 per cent of the burden of CIT. At the opposite extreme, many have argued that CIT in Canada cannot be borne by capital in the long run because of its international mobility. This implies that the burden of CIT in Canada is shifted onto labour and other immobile factors, which include natural resources. If the argued long-run parallelism of property tax and CIT holds, then a similar conclusion would hold for property tax.

The overall incidence of the tax system is a very large topic, and clearly cannot be settled here. What is important for our purposes can perhaps be summed up as follows:

i) Payroll taxes are progressive in the bottom income ranges, but regressive over the range from lower middle to the highest incomes (because of caps on the payroll tax base),

ii) PIT is highly progressive and is generally treated as unshifted, although the latter conclusion is shaky for highly qualified personnel,

iii) Ignoring GST and HST credits, sales and excise taxes are highly regressive from an annual viewpoint, but only mildly regressive in a lifetime framework,

iv) Property tax is highly regressive if unshifted, but may be shifted onto labour and other internationally immobile factors in the long run, making its redistributive impact unclear,

v) CIT is strongly progressive if unshifted but, like property tax, may be shifted onto labour and other internationally immobile factors in the long run.

Note that we have considered the tax side here separately from the government expenditure side, despite the fact that in some cases there are links between the two that could make it inappropriate or difficult to change the tax aspect without accompanying changes in spending. A good example of the latter is provided by CPP/QPP contributions and benefits, which (in the main) have a long-established close connection. However, the link between EI contributions and benefits is much weaker and it is quite possible to imagine making the contribution structure less regressive in a revenue-neutral way, independent of changes made to the benefit structure. Similarly, we have seen in recent history that GST and HST tax rates can be changed without accompanying changes in GST and HST credits without arousing much discussion or opposition.

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[16] Harberger, Arnold C. (1962), "The Incidence of the Corporation Income Tax," *Journal of Political Economy* 70(3): 215-40.

TABLE 1: TRANSFERS AND INCOME TAXES AS % OF MONEY INCOME, CANADA, ALL FAMILY UNITS 1991-2007

Transfers

Quintile	1991-1995	1996-2000	2001-2005	2003-2007
1	65.5	61.4	56.8	53.9
2	38.7	34.3	31.8	31.1
3	17.1	16.1	16.9	16.7
4	9.0	8.1	9.1	9.3
5	3.9	3.5	3.3	3.2
Total	13.8	12.3	11.8	11.7

Income Taxes

Quintile	1991-1995	1996-2000	2001-2005	2003-2007
1	2.6	5.5	4.8	5.3
2	8.9	10.1	8.9	8.8
3	15.3	15.9	13.3	13.0
4	19.5	19.6	16.4	16.1
5	24.9	24.8	22.3	22.0
Total	19.3	19.7	17.5	17.2

Sources: Columns 2 and 3 are from Kesselman and Cheung (2004) op. cit. Table 3; columns 4 and 5 are computed from Statistics Canada (2009), Income in Canada 2007, Catalogue no. 75-202-XPE, Ottawa: Statistics Canada, Income Statistics Division Table 8.

The Tax Mix

The above points suggest some conclusions about how changes in the tax mix could affect the degree of income redistribution in Canada. If, for example, one wished to boost the progressivity of the tax system, increasing PIT or perhaps reducing payroll taxes could play a role. Reducing sales and excise taxes might also help, but less so the longer the timeframe one employs in evaluating the results. Reducing property taxes could help in both the short run and the long run. Finally, while increasing CIT would be redistributive in the short run, and in the long run would harvest more resource rents, it would also reduce real wages in the long run, making such increases a questionable way to proceed.

Table 2 shows how the overall tax mix evolved in Canada over the period 1989-2009.[17] Note first that PIT is by far the most important of the five major tax sources, accounting for 37.6 per cent of total tax revenue in 2009. It is followed by sales and excise taxes[18] and payroll taxes at 21.3 per cent and 18 per cent respectively. Property taxes and CIT trail behind at 10.9 per cent

[17] These data are from CANSIM Table 385-0001, which like many other CANSIM tables has been terminated because a reworking of the data is in progress.

[18] The term used by Statistics Canada is "consumption taxes." I have substituted "sales and excise taxes" here to avoid confusion with the use of consumption taxes to refer to the broader set of taxes that are conceptually consistent with a consumption-tax approach to tax policy.

and 10.0 per cent. The importance of the tax sources fluctuates cyclically: PIT, payroll taxes and property tax tend to increase during recessions while CIT and sales and excise taxes decline in importance. The opposite tends to occur during boom periods. Since 1989 was a boom year and 2009 a recession year, it is best to compare 1989 with 2007 or 2008 instead, to get an idea of how our relative reliance on the different tax sources has changed over time.

TABLE 2: COMPOSITION OF TOTAL TAX REVENUE, CANADA, 1989-2009 (%)

	PIT	CIT	Sales and Excise Taxes	Property & Related Taxes	Payroll Taxes	Other Taxes
1989	37.3	8.3	25.8	11.3	14.8	2.5
1990	38.5	8.4	25.3	11.5	14.2	2.2
1991	40.4	7.0	23.5	11.6	15.5	2.0
1992	40.1	5.7	23.4	12.0	16.6	2.1
1993	38.7	4.9	23.8	12.9	17.5	2.3
1994	37.4	5.8	24.1	13.0	17.3	2.4
1995	36.8	7.0	23.6	12.8	17.5	2.3
1996	37.3	8.1	23.0	12.3	17.1	2.2
1997	37.3	8.8	22.7	12.1	17.0	2.1
1998	37.5	10.3	22.3	11.8	16.0	2.0
1999	37.6	9.9	22.5	11.3	16.7	2.0
2000	38.3	10.0	22.2	11.1	16.5	1.9
2001	36.9	11.2	22.6	10.6	16.9	1.8
2002	37.2	10.0	22.9	10.7	17.4	1.9
2003	35.7	8.6	24.6	10.8	18.3	2.0
2004	35.3	9.4	24.0	10.7	18.5	2.0
2005	35.2	10.7	23.7	10.6	17.7	2.1
2006	35.9	10.9	23.1	10.6	17.4	2.0
2007	36.7	11.9	21.6	10.5	17.2	2.2
2008	36.8	12.9	21.2	10.3	16.7	2.1
2009	37.6	10.0	21.3	10.9	18.0	2.3

Note: Consolidated tax revenue, all levels of government. Payroll taxes include CPP/QPP contributions.

Source: Constructed using CANSIM Table 385-0001

From 1989 to 2007 or 2008 the shares of PIT and property taxes both declined a little, while that of sales and excise taxes went down a lot from 25.8 per cent to 21.6 per cent in 2007. Sales and excise taxes went down in two waves, falling to 22.3 per cent by 1998 and then rising to 24.6 per cent in 2003 before falling again. The most marked decline, of two percentage points, was between 2005 and 2007, the period in which the GST rate was reduced from seven per cent to five per cent. CIT increased from 8.3 per cent in 1989 to 11.9 per cent in 2007 and 12.9 per cent in 2008 — a reflection of rising profits not increasing rates. Over this period, the federal CIT rates fell considerably and the provinces also decreased their rates. Payroll tax collections showed a similar proportional increase, rising from 14.8 per cent in 1998 to 17.2 per cent in 2007. This increase reflected mainly higher CPP/QPP contribution rates phased in after 1997.[19]

[19] Earlier there was a rise in UI/EI contribution rates, which had its peak effect in 2004, when payroll taxes were 18.5 per cent of total taxes. Later EI contribution rates were reduced.

Overall, the changes we have seen in the tax mix have had conflicting effects. The highly progressive PIT has neither waxed nor waned, and if we lump CIT and property tax together capital taxes have also held fairly steady. Payroll taxes, which are clearly regressive over much of their range, have risen in importance, but sales and excise taxes, which are viewed as highly regressive by many, have declined in importance.

What of the future? Are there prospects for changing the tax mix in ways that will make the overall system more redistributive? Certainly PIT could be increased. That could perhaps be combined with reduced property tax, and increased transfers from higher orders of government to the local level to compensate. Raising CIT is likely to have negative redistributive effects in the long run. As for reducing sales and excise taxes further, with the GST rate down to five per cent there has already been action on this front at the federal level. There does not seem to be much room for further reduction, and many economists believe there are strong efficiency arguments against that. Finally, EI and CPP/QPP are at present approximately self-financing. It would seem necessary to combine any reduction in contributions to these plans, which would reduce regressivity, with a reduction in benefits. The latter seems to run counter to current views that workers need more protection against unemployment and low income in retirement rather than less. So raising PIT and reducing property tax by an offsetting amount could, perhaps surprisingly, be the leading candidate for a pro-redistribution change in the tax mix over the next decade or so, from an economic viewpoint.

Tax Structure

Of course, changes in tax structure as well as in the tax mix can be considered. We still have some poor individuals who bear an income tax burden, while low-income workers pay EI and CPP/QPP contributions and pay them at a higher average rate than middle- or high-income earners due to contribution caps. Higher basic personal credits can be used to move the poor off the income tax rolls, and in principle the income thresholds at which one begins to make EI or CPP/QPP contributions could be increased to reduce burdens at the bottom end. Turning to other taxes, we already have the GST and HST credits, which are highly targeted and could be increased to compensate for reductions in other less-targeted transfers. At the provincial level property tax credits have been used increasingly to soften regressivity, and there is room for further moves in that direction.

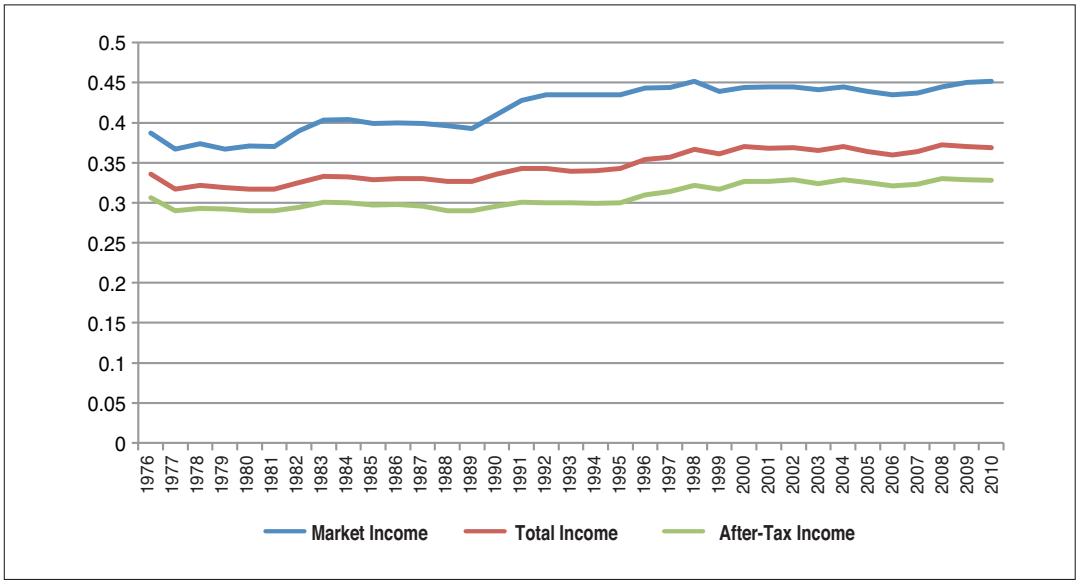
In keeping with the aim of this paper, which is to suggest how redistribution can be maintained in Canada without violating overall revenue neutrality relative to GDP, suggestions for tax reductions aimed at low-income people have to be accompanied by an explanation of where the additional revenue is to be found. There are a number of ways that the PIT system could be tightened up to generate more revenue without adverse distributional or efficiency effects. For example, the capital gains inclusion rate, at 50 per cent, is far below historic levels and provides more tax relief than our dividend tax credit. Raising the inclusion rate would even up the treatment of capital gains and dividends as well as generating more revenue. Other examples are provided by questionable personal boutique tax credits for everything from children's art and fitness to public transit and first-time home buying and the age credit (worth $981 in 2011), whose rationale has fallen away as poverty has fallen among the elderly and risen, at least in relative terms among young people and young families, so that merely being over 65 does not signal disadvantage.

THE EXPLICIT REDISTRIBUTION SYSTEM

As we have seen, the true income-redistribution effects of CIT, sales and excise taxes, and property taxes are not perfectly understood and are a matter of debate. We are on somewhat firmer ground when we look at the impact of PIT and payroll tax. In this section we look at the net impact of these intentionally redistributive taxes and the transfer payments they finance on income distribution.

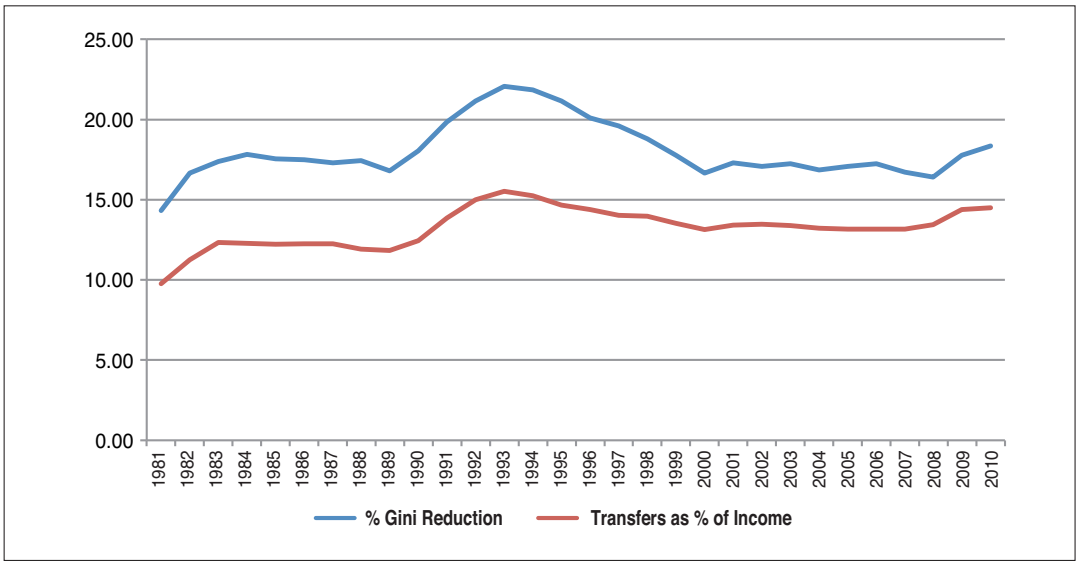
To get an initial overall view it is useful to look at Figure 1, which shows the behaviour of the Gini coefficient of income in Canada since 1976. The three lines show the Gini coefficients for market income, total income, and after-tax income. The difference between the Gini coefficients for market income and total income shows the equalizing effect of transfer payments, while the difference for total income vs. after-tax income shows the effect of PIT and payroll taxes. The chart shows that inequality according to all three income definitions has risen since the early 1980s. However, inequality in after-tax income fell a little in the late 1980s, and did not show a definite upward trend until the second half of the 1990s. These trends reflect the fact that the equalizing impact of both transfers and taxes increased from the mid-1980s to the mid-1990s and then declined (Figures 2 and 3). A small deviation from this pattern is that after 2008 the equalizing impact of the transfer system became slightly greater.

FIGURE 1: GINI COEFFICIENT OF INCOME, FAMILIES OF 2+ PERSONS, 1976-2010



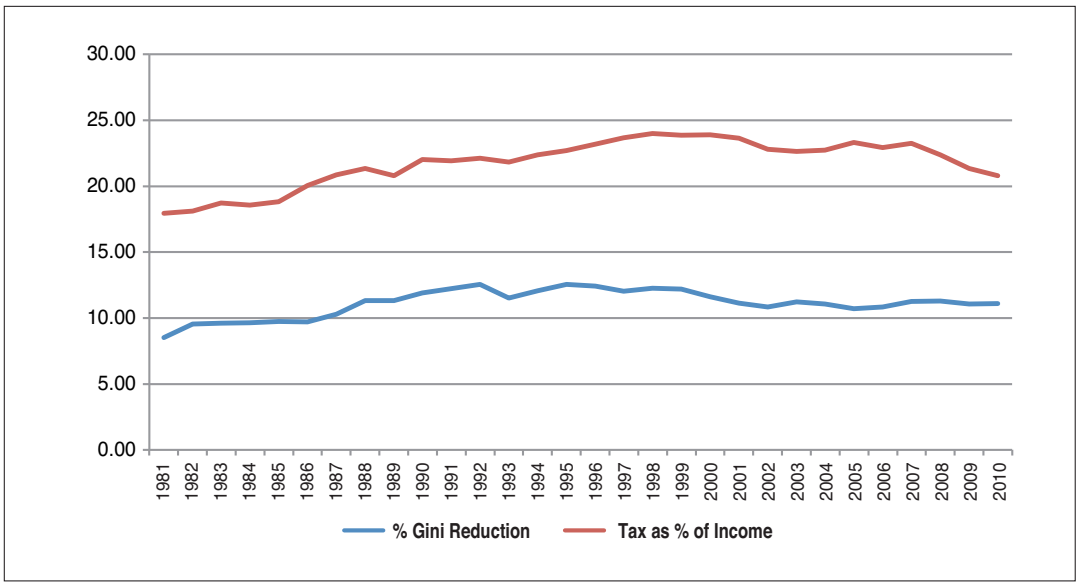
Source: Constructed using CANSIM Table 202-0705.

FIGURE 2: TRANSFERS: % OF INCOME AND IMPACT ON GINI COEFFICIENT, 1981-2010



Source: Constructed using CANSIM Tables 202-0705 and 384-0012.

FIGURE 3: DIRECT TAXES: % OF INCOME AND IMPACT ON GINI COEFFICIENT, 1981-2010



Source: Constructed using CANSIM Tables 202-0705 and 384-0012.

Table 1 shows income taxes and transfer payments as a fraction of total money income for quintiles of Canadian families from 1991 to 2007. This provides some preliminary insights into how the redistributive impact of taxes and transfers fell over this period. We see that transfers fell as a fraction of total income for the bottom quintile from 65.5 per cent over 1991-1995 to 53.9 per cent over 2003-2007. In part, this reflects the fact that 1991-1995 was a time of high unemployment, but the transfer share of the bottom quintile averaged 59.4 per cent over the

1980s[20] and was 61.4 per cent in 1996-2000. So the 2003-2007 figure does seem to represent something significant. And there is a similar decline in the importance of transfers for the second quintile. On the income tax side, the lowest quintile in 2003-2007 paid 5.3 per cent of its money income in tax, which is higher not only than the 2.6 per cent seen in 1991-1995, but is more than double the averages for the 1970s or 1980s.[21] On the other hand, the second quintile from the bottom paid about the same fraction of its income in tax in 2003-2007 as it did in 1991-1995, and a little more than it did in 1986-1990. At the top end, the share of income paid in tax by the top quintile fell from an average of 24.9 per cent in the 1990s to 22 per cent in 2003-2007.

Changes in the progressivity of transfers and income tax can arise simply from changes in the inequality of market income, or from program changes and changes in the scale of the transfers and income tax. It would be expected that a redistributive tax-transfer system would do more work during periods of higher inequality. And indeed some of this is evident in Table 1, as we see a higher share of transfers in income of the bottom two quintiles in the high-unemployment years 1991-1995. But after 1995 we have rising inequality and a fall in the equalizing effect of taxes and transfers, which is surprising. Below we will discuss the role of program changes in producing this unexpected result, but first we will examine the crude effects of changes in the scale of taxes and transfers.

Figure 2 throws some light on how the equalizing impact of both transfers and taxes became weaker in Canada during a period of rising income inequality. Changes in the equalizing impact of transfers are tracked quite closely by changes in their aggregate size. As a fraction of personal income, transfers rose from 9.8 per cent in 1981 to 15.5 per cent in 1993 and then gradually fell to 13.2 per cent in 2007. In the wake of the 2008-2009 recession and a subsequent period of higher unemployment they rebounded to 14.5 per cent of personal income. While there have been significant changes in the structure of transfers over the last three decades, those changes may perhaps not be necessary to explain the rise and falling the overall impact of transfers on inequality.

When we turn to taxes the story is not so simple. As seen in Figure 3, it is true that from the early 1980s to the early 1990s taxes rose relative to personal income — from 17.9 per cent in 1981 to 21.8 per cent in 1993. That coincides with an increasingly equalizing impact of taxes. But after 1993 the trends diverge until the year 2000. Taxes continued to rise as a fraction of personal income until reaching a plateau of 24 per cent in the years 1998 to 2000, but at the same time the equalizing effect of taxes began to decline. And after the year 2007 taxes fell quite sharply as a fraction of personal income, arriving at 20.8 per cent in 2010, while the equalizing impact of taxes held steady.

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[20] See Table 3 in Kesselman and Cheung (2004) op. cit.

[21] Ibid.

This is not the place to dissect the detailed causes for the declining redistributive effect of our tax system in the 1990s, or the steadiness of the effect despite an overall falling average tax rate after the year 2007. We can, however, point to some possibly relevant aspects. In the 1990s, the PIT structure for both the federal government and the nine provinces (i.e., all except Quebec) participating in the tax collection agreements was as set by the 1987 tax reforms: three tax brackets with taxable income thresholds at about $30,000 and $60,000 and tax rates of 17 per cent, 26 per cent and 29 per cent. Tax credits and the income thresholds were effectively not indexed.[22] The fall in equalizing effect was concentrated in the years 1996 to 2001. Since this is a period during which payroll taxes, which are mostly regressive, fell a bit as a percentage of personal income, they are not to blame for the decline in equalizing effect. It may be simply that with a relatively flat rate structure and no indexation,the impact of nominal income growth in making more low-income people taxable at a fairly high rate is sufficient to reduce the equalizing impact of the tax system.[23]

In the year 2000 the "tax on taxable income" rather than "tax on tax" approach was introduced in the tax collection agreements between the federal government and the provinces, although the net impact of this on progressivity does not appear to have been studied.[24] Then in 2001 the federal government reduced the bottom tax rate from 17 per cent to 16 per cent and introduced a new middle-income tax bracket. Subsequently the bottom marginal tax rate was reduced again, to 15 per cent. Further, credits and brackets were re-indexed to the CPI in 2001 and later years. The changes in the rate structure increased progressivity and the re-indexation reduced the strength of the de-equalizing impact identified above that occurs as more low-income people become taxable due to nominal income growth.

One fairly clear implication of the above discussion is that indexation is important in maintaining PIT progressivity. Adjustments in the rate structure over time may also be needed to ensure that the intended redistributive effect is being achieved.

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[22] From 1986 to 2000 the PIT system was only indexed for increases in the CPI above three per cent. After 1992 inflation fell below three per cent, so there was effectively no indexation.

[23] The effect can be readily illustrated in the case where there is a single-rate flat tax. Suppose income up to $20,000 is exempt and above that point there is a tax rate of 50 per cent. If the society has three individuals with pre-tax incomes of $20,000, $30,000 and $50,000 they will bear average tax rates of 0, 16.7 per cent and 30 per cent respectively. The pre-tax Gini coefficient is 0.200 and the post-tax Gini is 0.125, indicating equalization of 37.5 per cent. If real and inflationary income growth increases all the pre-tax incomes by 10 per cent, the average tax rates go to 4.5 per cent, 19.7 per cent and 31.8 per cent. The pre-tax Gini is still 0.200 but the post-tax Gini is 0.129 and the degree of equalization decreases to 35.3 per cent. Meanwhile, revenue has risen from $20,000 to $25,000.

[24] The net effect of provinces being free to introduce their own rate structures is unclear. Some provinces stuck with the former federal three bracket structure at least for a while, and Alberta introduced a flat tax — both moves toward less progressivity than seen in the revamped federal PIT structure. However, other provinces moved in the opposite direction, for example introducing higher new top rates.

THE ROLE OF TRANSFERS

Transfer Mix

As we have seen, over the last 30 years, the rise and fall in the impact of transfers on inequality was accompanied by a rise and then fall in the ratio of transfers to personal income, or what could be termed "transfer effort." If transfers went exclusively to low-income people this correlation would seem to be make perfect sense. However, the bulk of transfers are not aimed specifically at the poor, but at the unemployed, the retired and the elderly. It is therefore a good idea, as with taxes, to look at the mix of transfers and how that changes, in order to better understand how changes in transfers have affected inequality over time.

Consistent data on the composition of transfers for the country as a whole are difficult to obtain in a long time series. However, Statistics Canada began such a series for the year 2000 using T1 tax-filer data, with spouses being matched up to form couples, and non-taxable transfers imputed through calculations based on information in the tax form.[25] Table 3 shows the percentage composition of transfers for the country as a whole from 2000 to 2010 using those data. The first four columns show the transfers that are not exclusively targeted at low-income groups: EI, OAS/GIS, CPP/QPP and Workers' Compensation.[26] The last four columns show the transfers that are targeted at low-income people: CCTB, GST & HST refundable credits, SA, and "Other Provincial," which stands for Provincial Refundable Tax Credits and Family Benefits.[27]

Note the following:

i) OAS/GIS and CPP/QPP declined slightly from the year 2000 to 2010 — the big build-up will be from 2010 to 2030 as more and more baby boomers, who were born between 1945 and 1965, pass age 65.

ii) As a group, the transfers targeted at low-income people (i.e., those shown in the last four columns of the table) fell from 25.7 per cent of the total to 23.2 per cent between 2000 and 2004; subsequently they fluctuated at a higher level, arriving at 26.2 per cent in 2010.

iii) Overall transfers rose 18.9 per cent from 2000 to 2007 in real terms (not shown in Table 3). The transfers that rose at a higher rate were EI, CPP/QPP, CCTB and Other Provincial transfers.

iv) The transfers that grew at a lower than average rate from 2000 to 2007 were OAS/GIS, Workers' Compensation, GST and HST tax credits, and SA.

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[25] See http://www.statcan.gc.ca.proxy2.lib.uwo.ca/imdb-bmdi/4105-eng.htm

[26] Note again that we are separating the CPP/QPP system into tax and transfer components. Since, in the main, there is a strong link between CPP/QPP contributions and benefits, one cannot really make changes in one component without changes on the other side. However, for present purposes it is helpful to look at the distributional effects of the contributions and benefits separately.

[27] It is not clear why UCCB, which was introduced in 2007, is not included in this table.

v) OAS/GIS and CPP/QPP made up 58.3 per cent of the total transfers in 2007. From 2007 to 2030 the population aged 65+ is projected to double approximately as a fraction of the overall population. That implies a large real increase in transfers if programs, rates and policies remain on their current trajectory. The federal budget of 2012 announced that the age of eligibility for OAS/GIS would rise from 65 to 67 in stages beginning in 2023 and ending in 2029. That will reduce the old age-dependent population by about 10 per cent.

vi) The large relative increase in CCTB and decline in SA are part of a continuing strategy that began with the replacement of the child tax benefit (CTB) with enhanced benefits under the Canada child tax benefit (CCTB) in 1997. Child allowances under SA were reduced or eliminated.

vii) The Working Income Tax Benefit (WITB) was introduced in 2007 and enhanced in 2009. It is not shown in Table 3, and appears to have had no effect on the numbers shown for the other transfers from 2000 to 2009, whose percentages sum to 100 in those years. In 2010, however, WITB was included in an "other transfers" component that accounted for 0.8 per cent of total government transfers. For 2010, the percentages shown in Table 3 therefore sum to just 99.2.

TABLE 3: COMPOSITION OF GOVERNMENT TRANSFERS, CANADA, 2000-2010 (%)

	EI	OAS &GIS	CPP/QPP	Workers Comp.	CCTB	GST & HST Credits	SA	Other Provincial
2000	11.6	28.6	29.2	5.0	8.3	3.4	10.7	3.3
2001	12.7	28.4	28.8	5.1	8.7	3.2	9.7	3.4
2002	14.0	27.9	29.4	5.0	8.7	3.2	8.9	2.9
2003	13.8	28.4	29.7	4.8	8.8	3.2	8.6	2.8
2004	13.3	28.4	30.4	4.7	9.0	3.1	8.5	2.6
2005	12.4	28.2	30.5	4.6	9.2	3.1	8.2	3.8
2006	12.1	27.7	29.8	4.4	9.9	3.4	7.7	5.0
2007	12.3	28.1	30.2	4.5	10.7	2.8	7.7	3.7
2008	12.2	27.9	30.3	4.5	10.2	2.8	7.7	4.4
2009	15.5	26.7	29.3	4.2	9.6	2.7	7.6	4.4
2010	14.1	26.1	28.8	3.9	9.4	2.6	7.7	6.5

Note: Here government transfers include only the transfers listed plus the Working Income Tax Benefit (WITB) in 2010.

Source: Calculated using CANSIM Table 111-0025, which is based on T1 tax-filer data and imputations for non-taxed income sources.

Changes in Transfer Programs

As in the case of taxes, the progressivity of individual transfer programs has been affected over the last 20 years or so by changes in program design and parameters. Here is a brief (and unavoidably incomplete) summary:

EI: In the period from 1975 to 1996, the benefit rate was reduced from 60 per cent to 55 per cent and the qualifying period was raised from 12 to 20 weeks of work (in regions where unemployment is less than six per cent). The result of those changes was a substantial decline in the fraction of the unemployed population receiving EI benefits, which overall represents a decrease in redistribution. The absence of benefits for many unemployed

people, and the greater minimum hours required to qualify for EI benefits in regions of lower unemployment, became sensitive issues during and after the 2009 recession.[28]

While the lowered number of unemployed who qualify for benefits has reduced the redistributive aspect of EI, other changes have worked in the opposite direction. The employee premium stood at a peak of 3.07 per cent in 1994, but in 2013 stands at only 1.88 per cent (after gradually rising from a low of 1.73 per cent from 2008 to 2010). In 1979, a recovery tax at a rate of 30 per cent of net income was introduced above a high-income threshold. In 1987 the deduction for premiums paid was converted to a credit. Maternity and parental leave benefits were greatly expanded in the year 2000, providing benefits for up to one year, and in 2004 a benefit for up to six weeks of compassionate care was added.

OAS/GIS: In 1989, OAS benefits became income-tested. The clawback is at a 15 per cent rate on an individual's net income in excess of a threshold, which was $69,562 in 2012. Note that the clawback is on individual income; thus a husband and wife both with incomes of $60,000 would face no clawback. Less than five per cent of seniors are affected. There is certainly much room for OAS to be more precisely targeted.

At the beginning of 2012, the OAS had a maximum annual benefit of $6,481 per individual, while the GIS provided a maximum of $8,788 for singles and $11,655 for couples. Thus together OAS and GIS guaranteed an income of $15,270 for singles and $24.618 for couples. GIS is clawed back at a 50 per cent rate on other income, not including OAS.

The Allowance (formerly the spouse's allowance and widow's allowance) is provided to individuals aged 60-64 of spouses (alive or deceased) eligible for OAS *and* GIS — thus this is a benefit targeted at *some* low-income people in this age range.

CPP/QPP: In 1997, the CPP and QPP were reformed to make them sustainable in the long term. Benefits were reduced slightly and both employer and employee contribution rates were increased between 1998 and 2003 to 4.95 per cent of covered earnings. The CPP Investment Board was created to manage the CPP fund, while the Caisse de dépôt et placement performs the same role in Quebec.

The maximum CPP/QPP pension for someone retiring at age 65 in 2012 was $11,520, equal to 25 per cent of the average yearly maximum pensionable earnings — YMPE — in the previous five years. Taking into account the GIS clawback, this means that a single person who reached retirement in 2012 with no savings and no private pension, could generate at most $21,029 from OAS/GIS and CPP/QPP sources alone. (Additional transfers would be received from refundable tax credits, and could also be received from disability and other benefits.) A couple who had both worked could receive a maximum of $36,138 from these sources.

[28] One response to these concerns was an extension of the benefit period from a maximum of 45 weeks to 50 weeks for claims between March 2009 and September 2010. The period of work required to qualify for EI has been expressed in hours worked in the qualifying period (the previous 52 weeks in most cases) since 1996. It is 420 hours (roughly 12 weeks of full-time work) in regions where unemployment is 13.1 per cent or more and 700 hours (about 20 weeks) in regions with unemployment less than or equal to six per cent.

CCTB: As mentioned above, the CCTB began in 1997. It provided higher benefits than the former CTB and made them available to all low-income families. Child allowances under SA were reduced or eliminated, with the savings being reinvested in child-related benefits, such as childcare subsidies or the extension of health benefits to low-income working families. A key aim of the reform was to reduce barriers to work that kept low-income families on SA. The CCTB has two components: the basic benefit and a national child benefit supplement (NCBS). From July 2012 to June 2013, the basic benefit was $1,405 per child for the first two children in the family and $1,503 for the third child and each additional kid. The benefit was clawed back at a four per cent rate on the combined net income of parents over $42,707. The NCBS provided $2,177 for the first child, $1,926 for the second, and $1,832 for each additional child. Clawback rates ranged from 12.2 per cent (one child) to 33.3 per cent (three or more children) of family income over $24,863.

GST/HST Credits: These refundable credits offset the GST and HST paid by low- and modest-income families. For July 2012 to June 2013, the GST credit provides a maximum benefit of $260 per adult and $137 per child, plus a supplement for single adults that is phased in at a rate of two per cent of income over $8,439 to a maximum of $137. The credit is reduced by five per cent of family net income over $33,884.

SA: Social Assistance provisions vary by province and territory. The National Council of Welfare[29] reports full-year benefit levels in 2009 for tenants in large cities by province and type of case. In Ontario, the levels were $6,877 for a single employable person, $12,581 for a single person with a severe disability, $12,179 for a single parent with one young child, and $15,436 for a couple with two school-aged children. These benefits include provincial low-income credits but exclude federal benefits from CCTB and GST credits.

In the mid and late 1990s, SA benefit levels were reduced significantly in a number of provinces — by 22 per cent in a single stroke immediately after the election of the Mike Harris government in Ontario in 1995, for example. As a result of these reduced benefit levels, and also due to the 1997-1998 child tax benefit reforms, which allowed more families to stay off welfare, the role of SA in the income maintenance system has been reduced. It can now be regarded as a vehicle to provide short-term assistance to those in need of it, and longer-term support to people with severe disabilities.

A long-standing issue with SA has been work disincentives. In the classic SA system recipients would be allowed to earn a small amount (e.g., $50 or $100) per month, but any additional amounts would be clawed back at a 100 per cent rate. In the 1980s, provinces began to soften this effect by reducing clawbacks, typically to 50-75 per cent. (There was also some experimentation with workfare, but that came to little, due to high administrative costs and less long-term effect of welfare recipiency than had been hoped for.) Still, the welfare wall continues to discourage SA recipients from seeking work, partly because in-kind benefits, ranging from housing allowances to drugs and dental care, are also withdrawn as earnings rise.

[29] National Council of Welfare (2010), *Welfare Incomes 2009*, Government of Canada.

WITB: The working income tax benefit was introduced in 2007 and enhanced in 2009. The intention is to help overcome work disincentives created by the high effective EMTRs faced at low earnings levels, through a wage subsidy. In most provinces in 2011 WITB provided maximum annual benefits of $931 for singles and $1,690 for families (single parents and couples with or without children). The benefits were phased in at a rate of 25 per cent on earnings above $3,000 and are phased out at a rate of 15 per cent on family net income above $16,770 for singles and $25,854 for families. Provinces and territories have the option of reconfiguring the WITB to have it mesh better with their own tax-transfer programs. Quebec, Alberta, British Columbia and Nunavut have done so.

POLICY DIRECTIONS

Some policy directions that seem fairly clear have been identified above. Others that are worth pursuing can be teased out with more careful examination, and some directions that others have advocated can be disputed. The discussion below tries to summarize what can be concluded. It also takes a stand and makes some recommendations. One caveat is that what seems like a clear direction to an academic economist may be difficult to implement politically.

Initially, in this section we will consider what changes to transfer programs may be needed in Canada if we are to avoid future tax increases in the sense of raising the tax bite as a per cent of GDP. While it is possible that the social and political consensus that currently makes it difficult to raise taxes may change, this exercise is nonetheless useful as it introduces the discipline of revenue neutrality, relative to GDP. Later in the section, we will discuss some ways in which revenues can be increased through base-broadening in ways that would not cause severe distortions and might be politically palatable. To the extent that such moves are possible, they could relax the constraint of revenue neutrality and ease the maintenance of redistribution.

Table 4 shows the breakdown of total government expenditures as a fraction of GDP in Canada annually from 1989 to 2009. It might seem that there is little hint of the coming fiscal crunch here — from a high of 52.4 per cent of GDP in 1992, total government spending fell to 41.3 per cent in 2009, another recession year. However, looking at the health spending column gives a suggestion of things to come. From 1999 to 2009, public spending on health care rose from six to eight per cent of GDP. About half of this increase occurred in 2009 alone, however. The one- percentage-point increase from 1999 or 2000 to 2007 may be a better indication of the trend. The latter corresponds to an average annual growth rate of 1.4 per cent in the health spending share of GDP over the period 2000-2007. As nominal GDP was rising at a rate of about four per cent on average over this period this corresponds to a total growth rate of 5-5.5 per cent.

TABLE 4: CONSOLIDATED GOVERNMENT EXPENDITURES AS % OF GDP, CANADA, 1989-2009

Year	Total Expenditures	Health	Social Services	Education	Other
1989	43.4	5.7	12.1	5.9	19.7
1990	46.0	6.0	12.7	6.2	21.0
1991	49.6	6.5	13.9	6.8	22.4
1992	52.4	7.0	15.4	7.3	22.7
1993	52.0	7.0	15.8	7.4	21.7
1994	49.7	6.7	15.5	7.0	20.4
1995	48.0	6.4	14.5	6.9	20.3
1996	47.5	6.3	14.1	6.6	20.4
1997	44.1	6.1	13.6	6.1	18.3
1998	42.8	6.2	13.4	6.1	17.2
1999	41.5	6.0	12.8	5.9	16.7
2000	39.2	6.0	12.0	5.6	15.6
2001	40.3	6.4	12.3	5.7	15.9
2002	40.0	6.7	12.3	5.8	15.3
2003	39.6	6.9	12.0	5.8	15.0
2004	38.9	6.9	11.7	5.8	14.5
2005	37.6	6.9	11.4	5.6	13.7
2006	37.7	6.9	11.3	5.8	13.7
2007	37.8	7.0	11.4	5.7	13.7
2008	38.4	7.1	11.7	5.8	13.8
2009	41.3	8.0	12.4	6.3	14.6

Source: Calculated using CANSIM Table 380-0017.

Table 5 shows what happens when one projects the 2000-2007 trend in health-care spending into the future. The table shows three projections. The first neglects the impact of demographic factors, or as the table says, it does not take account of age changes. Health spending is assumed to rise at 1.4 percentage points above the growth rate of GDP from 2012 to 2032. In this scenario, total government spending would rise from 41.3 per cent in 2012 to 43.8 per cent — a seemingly manageable increase that one would suppose would not put too much pressure on other spending components. However, if we presume that overall government spending cannot rise as a fraction of GDP, and if the growth of all non-health spending were reduced accordingly (health spending itself not being altered), spending on social services would be cut 3.6 per cent by 2022 and 8.1 per cent by 2032. Social services spending would fall a full percentage point as a fraction of GDP by 2032, corresponding to a drop of about 1.3 per cent of personal income. Our earlier examination of the relationship between changes in overall "transfer effort" and redistribution indicates that, other things being equal, such a decrease could have a measureable impact on the degree of redistribution. For comparison, the entire downward swing in transfer payments from 15.5 per cent of personal income in 1993 to 13.2 per cent amounted to a decrease by just 2.3 percentage points. So even the rate of increase we saw in health-care spending before the recession projected into the future — with no account taken of the aging of the population — could have about half the effect of the largest swing in transfer payments we have seen in recent fiscal history.

The second projection in Table 5 adds the effect of aging on health-care spending. Davies and Horner[30] report a calculation showing that demographic changes alone would add about one

[30] Davies and Horner (2012) op. cit.

percentage point to the annual rise in government health-care spending from now to 2030.[31] When we make that addition here, we find that total spending would rise from 41.3 per cent in 2012 to 46 per cent in 2032 if no restraint were exercised. And if total spending were held constant at 41.3 per cent of GDP, other spending would have to be cut by 6.6 per cent as of 2022 and 16.4 per cent in 2032. The reduction in social service spending would be two full percentage points — a reduction from 12.4 per cent of GDP to 10.4 per cent.

The third projection in Table 5 takes into account the predicted increase in OAS/GIS spending. In its November 2012 fiscal update the federal government projected elderly benefits from 2012 to 2017. Those projections give an average annual growth rate of 5.6 per cent, compared with average projected GDP growth of 4.4 per cent per year over the same period. This suggests excess growth of OAS/GIS by 1.2 percentage points per year. The third projection in Table 5 incorporates that excess growth and asks what would happen if OAS/GIS growth were unrestrained by new measures, like health spending. The answer is that cuts to non-health and non-OAS/GIS spending would average 8.2 per cent by 2022. In 2032, those cuts would average 20.2 per cent. The latter result takes into account the increase in the age of OAS/GIS eligibility from 65 to 67 between 2023 and 2029.[32]

TABLE 5: GOVERNMENT SPENDING AND SOCIAL SERVICES SPENDING AS A % OF GDP UNDER DIFFERENT ASSUMPTIONS, CANADA, 2012, 2022 AND 2032

	2012	2022	2032
Projection 1 — Health spending rises faster than GDP due to non-age factors			
Other government. Spending rises at same rate as GDP	41.3	42.4	43.8
Total government spending when restrained: rises at same rate as GDP; health spending unaffected	41.3	41.3	41.3
Social services spending when restrained	12.4	12.0	11.4
% Reduction in social services spending due to restraint	0.0	3.6	8.1
Projection 2 — Health spending rises faster than GDP due to non-age and age factors			
Other government. Spending rises at same rate as GDP	41.3	43.4	46.0
Total government spending when restrained: rises at same rate as GDP; health spending unaffected	41.3	41.3	41.3
Social services spending when restrained	12.4	11.6	10.4
% Reduction in social services spending due to restraint	0.0	6.6	16.4
Projection 3 — Health spending rises faster than GDP due to non-age and age factors; OAS/GIS spending risesfaster than GDP due to age factors			
Other government. spending rises at same rate as GDP	41.3	43.6	46.6
Total government spending when restrained: rises at same rate as GDP; health and OAS/GIS spending unaffected	41.3	41.3	41.3
Non-OAS/GIS social services spending when restrained	10.2	9.4	8.2
% Reduction in non-OAS/GIS social services spending due to restraint	0.0	8.2	20.2

Source: Author's calculations. See text for details.

[31] The calculation was performed by Keith Horner, as reported in Davies and Horner (ibid, p. 13:39, footnote 41): "The contribution of population aging to aggregate government health costs was estimated by starting with a series of age- and sex-specific costs for 2008 and then weighting them by the actual or projected population distribution by age and sex for each year." The source of the age- and sex-specific costs was the Canadian Institute for Health Information — for a detailed reference see the full Davies and Horner footnote.

[32] Without the increase in eligibility age the cut would have been 20.4 per cent. The population aged 65+ will rise by a projected 89 per cent between 2012 and 2032. (This is calculated using the medium population growth scenario M1 from Statistics Canada, 2010.) With the increase in eligibility age to 67 fully phased in by 2032, the increase in the projected OAS/GIS population is 70 per cent between 2012 and 2032.

The possible effects of the fiscal crunch provide important background for a discussion of what can be done to maintain or increase redistributive impacts. Putting it in a nutshell, ideally we would like to find changes that, in total, would be as effective in increasing redistribution as a 20 per cent reduction in transfer payments other than OAS/GIS would be in reducing it. In this quest we will discuss each major element in the tax-transfer system in turn. On the tax side we will keep an eye out for base-broadening measures that could ease the problem of maintaining redistribution in the future by raising revenue in ways that might be politically acceptable.

PIT: Assuming for the moment that we do not radically alter our income tax structure, for example by going further in the personal consumption tax direction, or by adopting a dual income tax structure (see below), should we do anything to the PIT structure to help deal with the challenge posed by the fiscal crunch as identified above? Earlier we noted that, in principle, increasing PIT and reducing property tax by an offsetting amount would likely improve redistribution. Whether that is a change that would have broad appeal is uncertain. One thing that is very clear though is that we should maintain full indexation in the PIT system, since less than full indexation reduces progressivity. What about the rate structure? Should we increase PIT progressivity by raising the top marginal tax rate for example? This would reduce the incomes of some high-income people (those who could not avoid the increase in some way) but the revenue garnered is likely to be small.

Other possibilities for PIT base-broadening that might be attractive to some would include increasing the capital gains inclusion rate, reducing the dividend tax credit, or even reducing RRSP contribution limits. Concerns about the efficiency impacts of capital income taxation are a traditional reason not to go in such directions, although they have been weakened somewhat by the provision of a list of reasons as to why at least some capital income taxation is desirable in the academic literature.[33] Still, reducing the dividend tax credit or RRSP contribution limits are not obviously attractive moves from either an economic or political viewpoint. On the other hand, there is an economic argument for raising the capital gains inclusion rate, since it provides greater relief for capital gains than does the dividend tax credit for dividends, which is a distortion. Also, the 50 per cent inclusion rate is considerably below rates levied in earlier years.

There are other opportunities for base-broadening. For example, there has been a recent accumulation of small boutique tax credits that sacrifice revenue for little policy gain, and at the cost of losses in horizontal equity, progressivity or efficiency. Examples include the Children's Fitness Tax Credit, the Children's Art Tax Credit, the Public Transit Tax Credit, the First-Time Home Buyers' Tax Credit, the Family Caregiver Tax Credit, and the Volunteer Firefighters Tax Credit. And as mentioned earlier, there seems to be little rationale for maintaining the age credit, which gratuitously reduces the PIT burden of the (growing) ranks of persons aged 65 or more. Further ways of tightening up the PIT structure, in ways that improve equity and/or efficiency, could almost certainly be uncovered.

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[33] Zhang, Jie, James B. Davies, Jie Zeng and Stuart McDonald (2008), "Optimal taxation in a growth model with public consumption and home production," *Journal of Public Economics* 92: 885-896

Dual Income Tax: A tax direction that has gained in popularity is the dual income tax structure pioneered in some Northern European countries such as Sweden, under which labour income is taxed at a relatively high rate and capital income is taxed at a lower rate.[34] Corporate and personal capital taxes would also be integrated in a pure version of this approach. This structure is thought to address capital income tax competition, which has put downward pressure on corporate and other capital income tax rates in Europe, and also reflects the belief that taxes on capital taxes are more distortionary than those on labour earnings.[35] If the latter view is taken seriously, then people who believe the correct personal tax base on horizontal equity grounds is Haig-Simons income could make a retreat to the dual tax for efficiency reasons. And they could be met there by consumption tax advocates whose firmness of view has been eroded, for example by the results in the academic literature recently about the possible optimality of having at least some capital income taxation.

If a dual income tax were adopted, what kind of tax schedules for labour and capital would be needed to avoid a loss in redistribution? If one believes that capital income taxes are all borne by labour and other immobile factors of production in the long run, then one might think the answer would be that something similar to our current PIT rate structure should be used for labour earnings, and that the capital income tax schedule doesn't matter. Perhaps the capital income tax schedule could be the same as for labour, except that all the rates would be half those in the labour schedule. Or maybe the capital tax schedule would be proportional. Would it make any difference? A little reflection shows that it does. Suppose person A has $200,000 in capital income and person B has $800,000. Under a PIT schedule with rising marginal rates person A might pay, say, $50,000 in tax and person B could pay $350,000, i.e., a more than proportional burden compared with A. Their after-tax incomes would be $150,000 and $450,000 respectively. Alternatively, under an equal-yield proportional tax levied at a 40 per cent rate, A would pay $80,000 and B would pay $320,000, giving less equal after-tax incomes of $120,000 and $480,000. The difference in tax schedule clearly *does* matter for progressivity, even though in aggregate and on average,the burden of capital income tax may be shifted onto labour.

Wealth and Capital Transfer Taxes: At times when people become concerned about inequality in income and wealth distribution, there is often renewed interest in taxes on wealth or capital transfers. Historically, many European countries have collected a small amount of revenue through annual wealth taxes. Revenue tends to be small and distortions large because of erosion of the tax base through undervaluation of assets (allowed by the tax system in some cases), avoidance and evasion. The English-speaking countries and Canada have collected more revenue through their property taxes. There is little interest in, or demand for, additional wealth taxes in Canada. Unsurprisingly, they have been regarded as a non-starter.

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[34] See Boadway, Robin (2011). "Rethinking Tax-Transfer Policy for the 21st Century." in *New Directions for Intelligent Government in Canada: Papers in Honour of Ian Stewart*, edited by F. Gorbet and A. Sharpe, Ottawa: Centre for the Study of Living Standards: 163-203.

[35] Adoption of the dual income tax approach has been accompanied by an element of capital tax base-broadening, so that it is unclear how large the decrease in effective marginal tax rates (EMTRs) on capital income has typically been. This is an important issue, since it is the EMTR that determines the distortionary effect of capital taxation rather than the statutory tax rate.

In contrast to the situation with wealth taxation, there is serious interest in capital transfer taxation of various kinds. Some consumption tax and dual tax proponents argue for gifts and bequests to be included in the base for direct personal taxation if their desired reforms are implemented.[36] There are two variants of the proposal. One, which I believe is a minority position, would be to tax gifts and bequests in the hands of the donor, on the argument that giving is a form of consumption. The other is to tax these transfers in the hands of the recipient e.g., on the argument that the aim is to tax the lifetime consumption of an individual, and that someone who received all their lifetime income from inheritance would never be taxed on their consumption otherwise. The books are closed on taxes prepaid by the previous generation according to this view. Another related perspective is based on notions of *ex post* as opposed to *ex ante* vertical equity.

Consider the equity rationale for consumption taxation. The idea is that someone who chooses to save all his labour earnings, say, should not pay more tax over his lifetime than someone with the same earnings who consumes them immediately. This is a strong horizontal equity argument, but it is also an *ex ante* argument. In fact, people who save earn a wide range of rates of return. Some become wealthy, others go bust, and a lot of people in between get middling returns. Under either the pre-paid or post-paid (non-registered or registered) approaches exemplified by our TFSAs and RRSPs, people face no tax penalty for earning above-normal returns.[37] Those who are only concerned about *ex ante* equity have no problem with this. But some people care about *ex post* equity too, and may especially care when the proceeds of favourable investments cross the inter-generational boundary. Maybe the original saver deserved his good luck and should not be penalized for it, but is there a right to have a silver spoon placed in one's mouth? Many, including luminaries ranging from John Stuart Mill to Andrew Carnegie and Warren Buffett would say no.

Taxing capital transfers as proposed, through the PIT system (or a personal consumption tax system if one prefers), would be a large change with complex effects on taxpayers. It would need to be announced well in advance and phased in carefully. Averaging issues are also clearly important. These aspects deserve careful attention.

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[36] See Boadway (2011) op. cit and Davies, James B. and France St-Hilaire (1987), *Reforming Capital Income Taxation in Canada: Efficiency and Distributional Effects of Alternative Options*, Ottawa: Economic Council of Canada.

[37] It is sometimes thought that with registered assets there is a tax on above-normal returns, while that is not so with non-registered assets. This is perhaps because people who earn higher returns pay more tax when they withdraw funds from their registered accounts, e.g., to pay for consumption in retirement. This is a misconception. With the same MTR *ex post* results are exactly the same for taxpayers who make the same initial sacrifice of consumption. Suppose two people both have the same MTR and it is constant over their lifetimes, for simplicity. Bob takes $1,000 from his paycheque and puts it in a TFSA. Current tax does not change and his consumption sacrifice is $1,000. Susan also receives $1,000 in her paycheque but deposits $2,000 in an RRSP because she knows she will get a $1,000 rebate on her current taxes. She also sacrifices $1,000 in consumption. Then suppose Bob and Susan are both lucky enough to see their investments quadruple in real value by retirement and that this reflects above-normal returns. Bob has $4,000 in his TFSA and can spend it with no tax consequences. Susan has $8,000 in her RRSP but must pay $4,000 in tax on withdrawal — when she goes to the stores she also has $4,000 to spend. The conclusion is that there is no difference in how above-normal returns are taxed with registered vs. non-registered assets in the consumption tax approach.

EI and CPP/QPP: It could be argued that EI and CPP/QPP are not part of the fiscal crunch problem because they are stand-alone programs supported by premiums set to make them self-supporting. While the fact that general revenues provide the ultimate backstop for these programs means that the implications for the overall fiscal picture can't be completely ignored, for present purposes the argument is perhaps good enough. Still, if either program could reasonably be made more redistributive, that could help to compensate for reductions in the level, or at least the rate of growth, of other transfers.

EI has both an insurance role and a redistributive role. Although fewer of the unemployed receive benefits than in the old days, maternity and other benefits have been expanded in recent years as noted above. There has always been a debate about whether EI should be used for redistributive purposes, and some of the incentive effects created by its redistributive elements, such as encouraging people to remain in regions of high unemployment, have come under repeated attack. Converting EI to a pure insurance basis, and using the funds released to preserve and augment more broadly based redistribution implemented through refundable credits in the PIT system has been suggested in the past. The fiscal crunch increases the urgency of such a reform in my view. This does not require the introduction of a negative income tax, since we already have a range of NIT-type and near-NIT vehicles in our system, including GST/HST tax credits, the CCTB, and WITB. Augmenting, adjusting and renaming the GST/HST credit could do the job.

Since CPP/QPP was put on a more actuarially sound basis it has become a less controversial program. One hears few calls for its root and branch reform. On the contrary, there have been voices raised in favour of raising contributions and benefits, in order to improve pensions for workers who do not have employed-based pensions. There are attractions in the latter suggestion, but Robson[38] has argued that the CPP/QPP finances are not as ironclad as many think. In addition, higher CPP/QPP premiums would affect low- and lower-middle income workers, including many younger workers, the most, which is not very attractive on redistributive grounds. An alternative that has been proposed would be to raise YMPE, which would help build retirement incomes for middle-income workers and take some of the strain off OAS/GIS.

OAS/GIS: It seems clear that OAS needs to be more targeted. With an income threshold of about $70,000 being applied on an individual basis, the clawback affects less than five per cent of those over age 65. This threshold is indexed. Suppose that the indexation of the threshold were removed until its real value declined by 20 per cent. With two per cent annual inflation the reduction would be fully phased in gradually over the next 20 years, that is over the period when the percentage of elderly people in the population will increase most rapidly, giving needed expenditure relief — especially when combined with the increase in the age of eligibility from 65 to 67 between 2023 and 2029. In the calculations behind the third projection in Table 5, OAS/GIS will grow from 2.2 per cent of GDP in 2012 to 2.5 per cent in 2032 on current policies. A 20 per cent cut in the clawback threshold would likely reduce the latter figure to about 2.3 per cent, making a small but useful contribution to dealing with the fiscal crunch.

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[38] Robson, William B.P. (2011), "Don't Double Down on the CPP: Expansion Advocates Understate the Plan's Risks," Backgrounder No. 137 June, Toronto: C.D. Howe Institute.

Child Tax Benefits and WITB: The CCTB and WITB are successful and well-designed programs that provide broad-based benefits to families with children on the one hand, and low- income workers on the other. Both programs help to break down the welfare wall and encourage low-income people to seek work. Preserving the value of benefits in these programs is very important, irrespective of the fiscal crunch.

We have not discussed two other tax-transfer features introduced in recent years that assist families with children. One is the small non-refundable child tax credit introduced in 2007 and worth $320 per child (15 per cent of $2,131) in 2011. The motivation for this credit is to recognize that child-raising responsibilities reduce ability to pay. The absence of such a feature in Canadian PIT from 1988 to 2006 was contrary to basic horizontal equity principles and an embarrassment. The other is the universal childcare benefit (UCCB) which is taxable to the recipient (for couples the lower-earning spouse), but not included in family net income for the purposes of determining eligibility for CCTB and other income-tested benefits. The UCCB pays $1,200 per child under age six. While one sympathizes with the challenges faced by all parents of young children, and universality has not completely lost its appeal, as we enter the world of the fiscal crunch, I am afraid that UCCB must be a prime candidate to be cut. It moves us in the opposite of the direction we need to go, that is towards more targeted redistribution.

Final Note re: Effective Marginal Tax Rates

There are many issues that have received only brief attention above and some that have not been touched on at all. One omission that may seem striking is the lack of discussion of the high effective marginal tax rates (EMTRs) that still apply in the income range where people make the transition from welfare to work. We have often seen charts of how the EMTR varies with income, for different family types and age groups.[39] The familiar pattern is that the EMTR is low at the very bottom end, but then jumps up to 60 or 70 per cent for incomes around or not too far above the poverty line, before falling to about 40 per cent through the middle-income range and then rising to around 50 per cent at the top. Several authors have called for the high EMTRs affecting welfare recipients and low-income workers to be reduced. And the call has been heeded, for example in the introduction of the WITB. However, as pointed out in Davies and Horner,[40] while smoothing out the jump in EMTRs at low incomes is a worthwhile goal, there are limits to what can be done because programs rapidly become more expensive without the high EMTRs. This point has long been recognized in the optimal income tax literature.[41] There is a trade-off between providing generous benefits to people with no market income and having low EMTRs for the working poor. The high EMTRs are caused largely by the withdrawal of benefits. Reducing those EMTRs means expanding the recipient population — a powerful effect since the density of population rises steeply with market income in the lower part of the income distribution. From the redistributive viewpoint, not reducing EMTRs *too much* is important in order to be able to afford to pay adequate benefits to those who cannot work or cannot find work.

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[39] See for example Davies, James B. (1998), "Marginal Tax Rates in Canada: High and Getting Higher," Commentary No. 103 March, Toronto: C.D. Howe Institute and Davies and Horner (2012) op. cit. Figure 13.5.

[40] Ibid.

[41] Atkinson, A.B. and J.E. Stiglitz (1980), Lectures on Public Economics. London, Toronto: McGraw Hill; Boadway, Robin (2012), *From optimal tax theory to tax policy: retrospective and prospective views.* Cambridge, Mass: MIT Press.

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James B. Davies is a Professor in the Department of Economics at the University of Western Ontario in London, Ontario where he has been a faculty member since 1977. He served as Chair of his department from 1992 to 2001 and was Director of the Economic Policy Research Institute at UWO from 2001 to 2013. Graduating from the University of Manitoba in 1974, he went on to the London School of Economics where he received his PhD in 1979. In 2010 James completed a five-year term as Managing Editor of Canadian Public Policy. He has authored or edited four books and over 70 articles and chapters on a wide range of topics, including tax policy, savings and pensions, income and wealth distribution, and inequality. He has engaged broadly in public service and is currently a co-author on the Global Wealth Report and Global Wealth Databook released annually by the Credit Suisse Research Institute.

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