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## Piercing the Veil: Private Corporations and the Income of the Affluent

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### PRÉCIS

Les tendances relatives à l'inégalité des revenus, particulièrement les observations selon lesquelles les changements les plus spectaculaires se produisent parmi le 1 pour cent supérieur, ont suscité beaucoup d'attention récemment. Les déclarations de revenus des particuliers sont la source principale de données canadiennes pour ces résultats. La présente étude élargit ces analyses en considérant le rôle potentiellement important joué par les sociétés privées. Bien que les données fiscales des particuliers se fondent sur une définition inclusive du revenu, cette définition n'inclut pas le revenu économique reçu par l'intermédiaire de sociétés privées. Avoir une société privée offre un certain nombre d'avantages, particulièrement la responsabilité limitée. Elle offre de plus des avantages de planification fiscale potentiellement importants, notamment des taux effectifs d'impôt sur le revenu inférieurs grâce à la déduction accordée aux petites entreprises, au report d'impôt et aux occasions de fractionnement du revenu. L'omission d'un tel revenu économique signifie que les évaluations des niveaux et des tendances d'inégalité peuvent être sensiblement biaisées. La présente étude prend en compte un nouveau lien anonyme de déclarations de revenus produites par les sociétés privées sous contrôle canadien (SPCC) avec un échantillon des déclarations de revenus des particuliers de leurs propriétaires sous l'autorité et la protection de la Loi sur la statistique. Nous décrivons d'abord la conceptualisation du rôle des sociétés privées dans l'analyse de l'inégalité des revenus et les méthodes adoptées pour cette étude. Nous présentons nos résultats préliminaires, notamment l'ampleur de l'utilisation des sociétés privées sous diverses formes et les incidences sur l'inégalité des revenus mesurée, particulièrement à l'extrémité supérieure de la distribution. En somme, les parts supérieures de revenu sont sensiblement plus élevées lorsque les revenus des SPCC sont inclus.

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**ABSTRACT**

A great deal of attention has been given recently to trends in income inequality, especially to observations that the most dramatic changes have been occurring among the top 1 percent. The key source of data in Canada for these results is individuals' income tax returns. This study extends these analyses by considering the potentially important role played by private companies. Even though individual income tax data are based on an inclusive definition of income, that definition does not include economic income received via privately owned companies. Having a private company offers a number of benefits, especially limited liability. It further offers potentially significant income-tax-planning benefits, including access to lower effective income tax rates through the small business deduction, tax deferral, and opportunities for income splitting. The omission of such economic income means that estimates of inequality levels and trends may be significantly biased.

This study draws on a new anonymous linkage of income tax returns filed by Canadian-controlled private corporations (CCPCs) with a sample of their owners' individual income tax returns under the authority and protection of the Statistics Act. We first describe the conceptualization of the role of private corporations in income inequality analysis, and the methods adopted for this study. We present our initial results, including the extent of use of private corporations in various forms, and the impacts on measured income inequality, especially in the upper tail of the distribution. In sum, top income shares are significantly higher when CCPC incomes are included.

**KEYWORDS:** CCPC ■ INCOME TAX ACT ■ INCOME DISTRIBUTION ■ CORPORATE VEIL ■ TAX AVOIDANCE ■ TAX EXPENDITURES

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*At the end of the day, what we need is more transparency about income and wealth.*

Thomas Piketty, interview with Amanda Lang, CBC News, “The Lang & O’Leary Exchange,” May 23, 2014

## INTRODUCTION

During the past few years, the issue of income inequality has been attracting a great deal of public and media interest. There was a crescendo with the Occupy movement emerging in 2011, amid concern about the disproportionate share of income received by the top 1 percent.<sup>1</sup>

Over the past 30 years in all Anglo-American countries, but particularly in the United States, an increasing share of income has accrued to the top 1 percent.<sup>2</sup> Further, recent media coverage of the bestselling book by Thomas Piketty, *Capital in the Twenty-First Century*,<sup>3</sup> which emphasized the renewed and growing importance of inherited wealth, has sparked concern that without significant public policy intervention, the trend toward increasing income inequality will continue.

Much of the recent evidence about income inequality, especially the share of the top 1 percent, is derived from income tax return data. For most individuals and their families, incomes reported on their individual income tax returns provide a reasonably complete measure. However, in Canada—more so than in the United States—this is not necessarily true for the well off. The reason is that in Canada, where the corporate tax rate is considerably lower than the top individual rate, there are significant tax advantages to earning and retaining income in Canadian-controlled private corporations (CCPCs).<sup>4</sup> By contrast, in the United States, the top personal tax rate is generally lower than the corporate tax rate, so private corporations do not provide the same opportunity for tax deferral.

The individual income tax data also exclude a number of other important kinds of income, considered here in the economic sense of the Haig-Simons definition—the flow of resources that can be consumed while leaving the stock of wealth unchanged. These omissions include income received in registered retirement savings plans (RRSPs), workplace pensions (RPPs), and tax-free savings accounts. Similarly, individuals may own shares in publicly traded corporations, either directly or via mutual funds. These companies also retain income that should be considered part of the economic income of their owners. These various forms of income are not considered here owing to data limitations.

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- 1 Canada, House of Commons, *Income Inequality in Canada: An Overview*, Report of the Standing Committee on Finance, 41st Parl., 2d sess., December 2013.
  - 2 Anthony B. Atkinson, Thomas Piketty, and Emmanuel Saez, “Top Incomes in the Long Run of History” (2011) 49:1 *Journal of Economic Literature* 3-71.
  - 3 Thomas Piketty, *Capital in the Twenty-First Century* (Cambridge, MA: Belknap Press of Harvard University Press, 2014).
  - 4 As defined in the Income Tax Act, RSC 1985, c. 1 (5th Supp.), as amended, subsection 125(7), a Canadian-controlled private corporation is basically a corporation whose shares are not publicly traded and which is not controlled by a public corporation or non-residents.

We begin by providing background on the use of CCPCs in tax planning. Later sections of the article provide a first set of empirical results on income inequality in Canada showing the role of income received in CCPCs.

## CCPCs, TAX INTEGRATION, AND TAX PLANNING

There is a long history in tax policy analysis of concerns about “double taxation.” The idea is that if someone receives a dollar of income, it should be taxed at the same rate whether it is received directly—for example, by a self-employed farmer—or indirectly, if the farm is an incorporated business that receives the income in the first instance and distributes that income (after corporate income tax) to the business owner as salary or dividends. However, Canada has both a corporate income tax and an individual income tax, so the possibility of double taxation exists.

In order to address this concern, the Canadian Income Tax Act includes a series of provisions designed to prevent double taxation. For example, if the farmer (or restaurant owner or doctor) receives a dollar of income in his or her CCPC but then pays it out in the same year as a dollar of salary, that dollar is deducted in computing corporate income, so that it is not taxed at all in the CCPC, and it is fully included in income for individual income tax purposes. In this case, there is no double taxation.

If the dollar of income received by the CCPC is paid out as a dividend, another set of provisions comes into play—the dividend gross-up and tax credit—the effect of which is that dividend income in the hands of individuals is generally taxed at a lower rate than other sources of income, such as wages and interest. This lower effective tax rate on dividends at the individual level is explicitly designed to recognize that the income has already borne tax inside the CCPC. The idea of the dividend gross-up and tax credit is that income flowing into a corporation and then out to a shareholder via dividends should bear exactly the same rate of tax as if the income had flowed to the individual directly. If this is achieved, the corporate and personal income tax systems are said to be fully integrated. However, depending on the specific corporate and personal income tax rates applicable, and the rates of dividend gross-up and tax credit, the two income taxes considered jointly can be over- or underintegrated. In other words, in some cases the dividend gross-up and tax credit on income taxes payable at the individual level results in a smaller or larger amount of combined corporate and individual income tax than would have been paid if the shareholder had received the income directly.<sup>5</sup>

Further, to the extent that the corporate tax rate is lower than the owner’s individual income tax rate, it may be advantageous to retain the income within the CCPC for a number of years and pay it out later. In this way, business owners eligible for the small business deduction (SBD) can obtain a tax deferral for up to two-thirds

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5 The deferral advantage of earning and retaining income in a CCPC applies only to business income. Investment income received by a CCPC is not entitled to either the small business deduction or the general rate reduction. Further, it is subject to an additional refundable tax of 6⅔ percent. Hence, in most provinces, the corporate tax rate that applies to investment income earned by a CCPC is about equal to the top marginal individual income tax rate.

of the tax that they would otherwise have to pay if they received the income directly and were in the top income tax bracket. As shown in appendix table A2, in 2010 approximately \$48 billion in retained earnings (the measure of CCPC economic income that we are using) accrued to the benefit of individual shareholders but was not included in the conventional income distribution statistics. Of that amount, \$31 billion accrued directly to the benefit of individual shareholders who held at least 10 percent of the CCPC's common or preferred shares, while the rest accrued indirectly to such shareholders through other legal entities (corporations and trusts) or to other small shareholders.<sup>6</sup>

Structuring income so that it flows first to a CCPC also enables the beneficial owner of this income to pay it out to other family members, including a spouse and adult children, who may be in lower income tax brackets or non-taxable. Such an income-splitting strategy lowers the effective combined individual plus corporate tax rate on the income from a family perspective.<sup>7</sup>

Another major benefit of using CCPCs to receive income is avoidance of capital gains tax. For example, qualifying taxpayers can use the \$813,600 (in 2015) lifetime capital gains exemption when transferring ownership of the business. Additionally, if the intent is to pass the business to the next generation without triggering a further capital gains realization and the business is organized as a CCPC, the shares can be restructured and transferred by way of an estate freeze.

In light of the potential tax savings associated with CCPCs, it is possible that the widely publicized data on the share of the top 1 percent in Canada, and its trend, are significantly biased, given that those data rely exclusively on incomes reported on individual income tax returns. The published data take no account of income that may be received beneficially (in an economic sense) but indirectly through a CCPC. Nor do the data on top individuals' income shares include in those individuals' incomes amounts that have been diverted through the use of a CCPC to a spouse or adult child of the individual, by having the corporation pay dividends on classes of shares held by the spouse or child that are far in excess of a fair return on the capital that he or she has contributed to the corporation.

The objective of this study is to pierce the corporate veil by bringing together anonymous data from individuals' income tax returns and data on the incomes received in the CCPCs that those individuals own. This is not an easy task. The Income Tax Act is Canada's most complex piece of legislation. The financial incentives to devise tax-planning measures that make maximum use of available tax provisions can result in rather complicated legal arrangements. Moreover, the corporate income tax data have never before been used for analysis at this level of detail.

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6 "Small shareholder" here refers to shareholders who hold less than 10 percent of a CCPC's common or preferred shares. The Canada Revenue Agency (CRA) does not collect data on shareholders owning less than 10 percent of a corporation's shares.

7 See Michael Wolfson and Scott Legree, "Private Companies, Professionals, and Income Splitting—Recent Canadian Experience" (2015) 63:3 *Canadian Tax Journal* 717-37.

As a result, this study focuses on a limited set of key results. Specifically, the main question we address is how much the share of income accrued by the top 1 percent (and all other income groups) changes when income received beneficially through CCPCs is included.<sup>8</sup>

The following section provides an overview of the use of CCPCs for tax planning and introduces key concepts that are used in the statistical analysis to follow. Then the main statistical results are presented. The key conclusions are that the share of income of the top 1 percent increases by about one-quarter when CCPC income is included. Further, the trends in top income shares since the Great Recession are seen to be increasing at a noticeably faster rate when CCPC incomes are included, compared to the trends when only incomes reported on individual income tax returns are considered.

## WHY CREATE A CORPORATION?

Figure 1 shows how the income of a high-income individual would be reported if that individual did not engage in tax planning using a CCPC. This is the type of data used in standard analyses of the incomes of the top 1 percent and the shares of incomes of all the other income groups.

It is important to note that the income in figure 1 can include income from a business. This would be reported as self-employment income, whether from consulting or owning a corner store. Such income is defined as revenue less the expenses incurred to earn that income. In regard to the deduction of expenses, in most cases (for example, automobile or business lunch expenses) there is no particular advantage to having the income flow through a CCPC rather than being received directly as self-employment income.

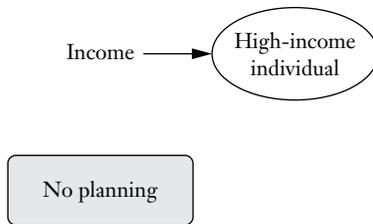
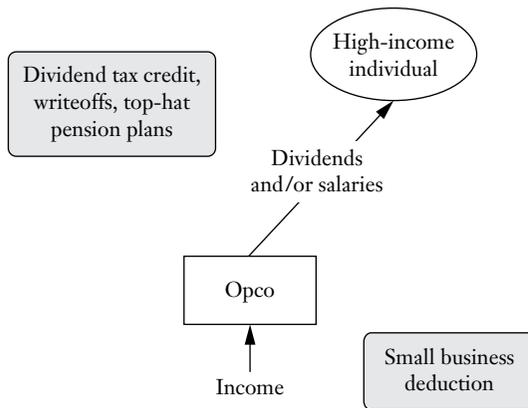
Figure 2 shows the simplest structure where income from a business is not received by the individual owner directly, but instead it is flowed through a CCPC. In this case, the CCPC is typically called an operating company (“Opco” in accounting and tax-planning parlance). To the extent that the owner needs income to cover living costs, as a controlling shareholder he or she arranges for Opco to pay him or her a salary and/or dividends.

Most individuals do not create a structure like figure 2. First, there are non-trivial costs payable to lawyers and accountants to establish a CCPC, and additional administrative costs associated with the requirement to file corporation income tax, sales tax, and other information returns every year. So unless there are important tax-planning benefits, it is usually not worthwhile for a taxpayer to create this kind of structure. However, if the business earns substantial income, there are a number of advantages to the arrangement of affairs as shown in figure 2 rather than figure 1.

There is also one major non-tax advantage in setting up the structure in figure 2. Historically, one of the principal reasons for the creation of the legal entity of the

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<sup>8</sup> The impacts associated with income splitting are addressed in Wolfson and Legree, *ibid.*; other aspects will be addressed in future planned work.

**FIGURE 1 Tax Planning 101—A****FIGURE 2 Tax Planning 101—B**

corporation is to offer limited liability. If an incorporated business fails, creditors can go after the assets of the corporation but not those of its owners. The social construct of the limited liability corporation is intended to enable entrepreneurs and shareholders to take greater risks, in the expectation that this will spur innovation and hence produce broader benefits for the economy.

But corporations have evolved to offer other benefits to their owners. From an income tax perspective, income received by Opco in figure 2 may be eligible for the SBD (small business deduction), resulting in a reduced rate of corporate income tax—for example, 15.5 percent in Ontario in 2015 (federal and provincial combined). Even if the Opco income were not eligible for the SBD, it would be taxed at the general corporate income tax rate of 26.5 percent (Ontario, federal and provincial, in 2015). Both of these tax rates are well below the top individual income tax rate, which was 46.4 percent in Ontario for a number of years and was recently raised to 49.5 percent (federal and provincial combined).

Moreover, when the owner wants to have some of the income that has been received by and retained in the CCPC to use for living or other expenses, he or she has the discretion to pay this income out as either salary or dividends. As salary, the

amount paid out is deductible to the CCPC and taxable in the hands of the individual. In this case, flowing the income through the CCPC is neutral in terms of the effective tax rate that it bears. However, to the extent that the income is retained within the CCPC for a number of years and then paid out as salary, the individual benefits from the deferral of tax. The taxpayer may also increase the benefit from deferral by delaying the payout until he or she is in a lower income-tax bracket. Much tax-planning advice also involves minimizing a taxpayer's tax liability by choosing various elements of a shareholder-manager's remuneration, including optimizing the mix of salary and dividends.<sup>9</sup>

The owner of a CCPC may prefer to receive income from the business in the form of dividends. If a dividend is a "non-eligible dividend" (that is, it was paid out of profits that qualified for the SBD), the amount will be taxable at a top individual effective rate in Ontario of 34.9 percent (in 2015, federal and provincial combined, not including surtax). If the dividend was an eligible dividend, the individual income tax rate will be 29.5 percent. But taking account of the corporate tax paid, the effective tax rate in both cases should be roughly the same as what the individual would have paid if the income had been received directly. Thus, leaving aside tax deferral and income-splitting possibilities, the current Income Tax Act provisions nominally provide close to full tax integration. (In earlier years, the Act has sometimes allowed nominal overintegration.) Moreover, it may be that "effective" corporate income tax rates—taxes actually paid after use of various tax expenditure provisions such as accelerated depreciation, investment tax credits, and others catalogued in the Department of Finance tax expenditure account<sup>10</sup>—are below the nominal rates used as the basis for establishing the dividend gross-up and credit rates in the legislation.

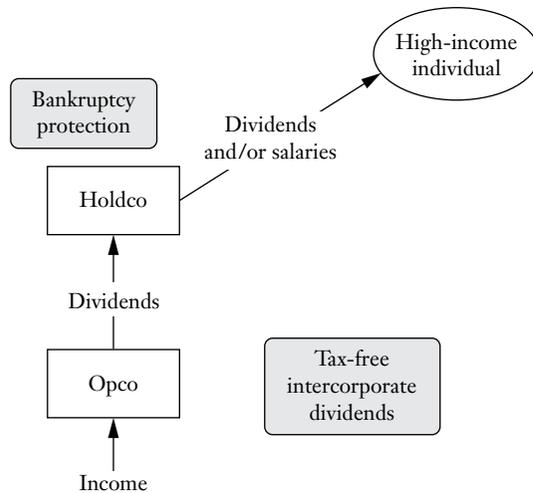
While accelerated depreciation and investment tax credits are in principle available to the self-employed as well, they are virtually all claimed by corporations. Another important credit, the scientific research and experimental development tax credit, is available only to corporations, with a higher rate being provided for CCPCs. It is also possible to set up a "top hat" registered pension plan (RPP) within a CCPC, which can enable the owner to defer more income than is possible with an RRSP.

Figure 3 illustrates a more complicated structure. In this case, a second CCPC—a holding company (Holdco)—has been interposed between Opco and the owner. This arrangement may be used to take advantage of tax provisions that (with some

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9 See, for example, Jamie Golombek, "Rethinking RRSPs for Business Owners: Why Taking a Salary May Not Make Sense," *CIBC Private Wealth Management Small Business Report*, October 19, 2010, 1-7 ([www.cibc.com/ca/pdf/jg-rethinking-rrsps-en.pdf](http://www.cibc.com/ca/pdf/jg-rethinking-rrsps-en.pdf)); Ciarán P. Lynch, "Changes to the Dividend Tax Credit—How Does This Affect the Self-Employed?" T.E. Wealth blog, August 28, 2013 ([www.tewealth.com/category/blog/page/2/](http://www.tewealth.com/category/blog/page/2/)); and Robert E. Beam, Stanley N. Laiken, and James J. Barnett, *Introduction to Federal Income Taxation in Canada*, 34th ed. (Toronto: CCH Canadian, 2013), chapter 13.

10 Canada, Department of Finance, *Tax Expenditures and Evaluations 2012* (Ottawa: Department of Finance, 2013).

**FIGURE 3 Tax Planning 101—C**

exceptions) allow dividends paid by one corporation to another corporation to flow tax-free; thus, there is no tax penalty in terms of flowing dividend income between Opco and Holdco.

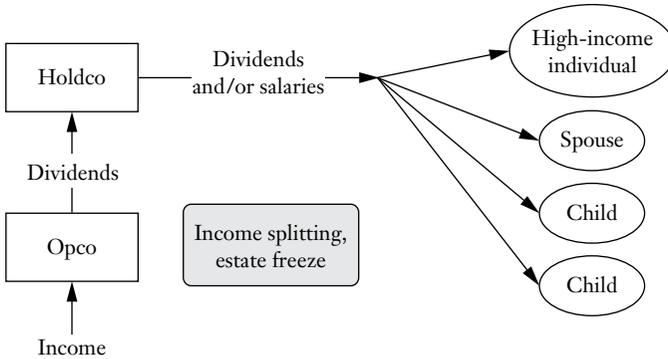
One advantage of this structure, compared to that in figure 2, is related to limited liability. If there is any risk of bankruptcy in Opco, yet the owner wants to continue tax deferral or other tax planning that requires the income to be retained in a CCPC, Opco can flow its income each month or year to Holdco, and Holdco can keep the income until the owner wants it.

There are many other possible tax-planning benefits that could be realized with the structure in figure 3, but they are not essential to the general point: sophisticated tax planning can involve not only setting up a single CCPC to receive an individual taxpayer's income, but also creating more complex ownership structures involving a number of CCPCs.

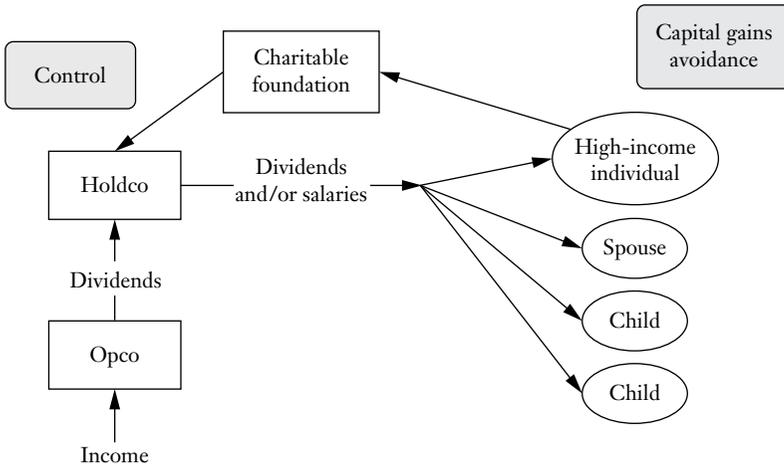
One further major benefit of creating one or more CCPCs is income splitting, as illustrated in figures 4 and 5. It is relatively straightforward to structure the shares of the CCPC so that the principal owner holds all the voting shares and thereby retains control of the business, while the spouse and adult children each own other, non-voting classes of shares. The CCPC owner can then flow income from the CCPC to other family members by a carefully planned declaration of different dividends on different classes of shares (so-called dividend sprinkling). To the extent that the spouse and/or children are in lower income-tax brackets, the effective rate of tax, from the family's perspective, can be substantially lowered.

Similarly, the corporation can pay salaries to other family members to split income, though for this technique to be tax-effective, there must be a plausible indication that work of real value to the CCPC is being performed.

**FIGURE 4 Tax Planning 101—D**



**FIGURE 5 Tax Planning 101—E**



**WHO OWNS CCPCs?**

The previous section set out in general terms why it may be beneficial in terms of tax planning for individuals to arrange their legal affairs so that substantial amounts of their income flow to them indirectly via one or more CCPCs. There are two key empirical questions: (1) how often does this occur, and (2) to the extent that it does occur, does it skew our understanding of the extent of income inequality in Canada?

In this section, we present results from a complex linkage of various income tax return forms. It should be emphasized that while computer files of millions of returns were drawn upon, the only results provided to us were aggregated to ensure that absolutely no identifiable information was released. The main objective is to show statistical patterns.

Figure 6 shows the proportions of individual taxfilers owning at least 10 percent of the shares of at least one CCPC, arrayed by income group.<sup>11</sup> Within each income group, the series of bars tracks these ownership rates over the decade 2001–2011. The most vivid result is the highly skewed pattern. At least 65 percent, and in some years as many as 80 percent of the taxfilers in the top 0.01 percent (one hundredth of a percent) were CCPC owners<sup>12</sup> during this decade. Well over half of those in the next 0.09 percent (the 99.90th to 99.99th percentiles) owned a CCPC. In contrast, fewer than 5 percent of taxfilers in the bottom half of the income distribution (the first five deciles) owned a CCPC.<sup>13</sup>

As noted in reference to figures 4 and 5 above, there may be good tax-planning reasons to structure a taxpayer’s affairs using more than one CCPC. Figure 7 illustrates this possibility with two ownership structures: the one on the left being simpler, and the one on the right involving a number of CCPCs. On the basis of these structures, we have defined two indicators of an individual’s CCPC ownership structure: the total number of CCPCs owned directly, and the maximum number of levels of CCPC ownership.

Figure 8 shows, for those who own at least one CCPC, the number of directly owned CCPCs by income group,<sup>14</sup> while figure 9 shows the maximum number of levels of CCPCs, again by income group. For both indicators of the complexity of the ownership structures, complexity increases substantially as we move up the income scale.

## METHODS

As should be evident at this point, the corporate and individual income tax data underlying these results are highly complex. The analysis first required linkage of a number of tax return schedules, as described in the appendix and figure A1. Further, table A1 in the appendix provides information on the main financial characteristics of the corporations—total revenue, net income, assets,  $\Delta$  retained earnings<sup>15</sup>—at each stage of this linkage process. Corporations in general received over \$3.5 trillion in revenue and generated almost \$386 billion in net income (the entire corporate universe, first column of table A1). But these amounts are highly skewed, as indicated by the almost 20-fold difference between average (mean) revenue of \$1.7 million and median revenue of \$96,000. The CCPC portion of the corporate universe consists of

11 “Income” in this case refers to individual income after income tax payments. It includes actual dividend and all capital gains income rather than grossed-up dividends as used in the dividend tax credit calculation and the fraction of capital gains that are included in the taxable income calculation.

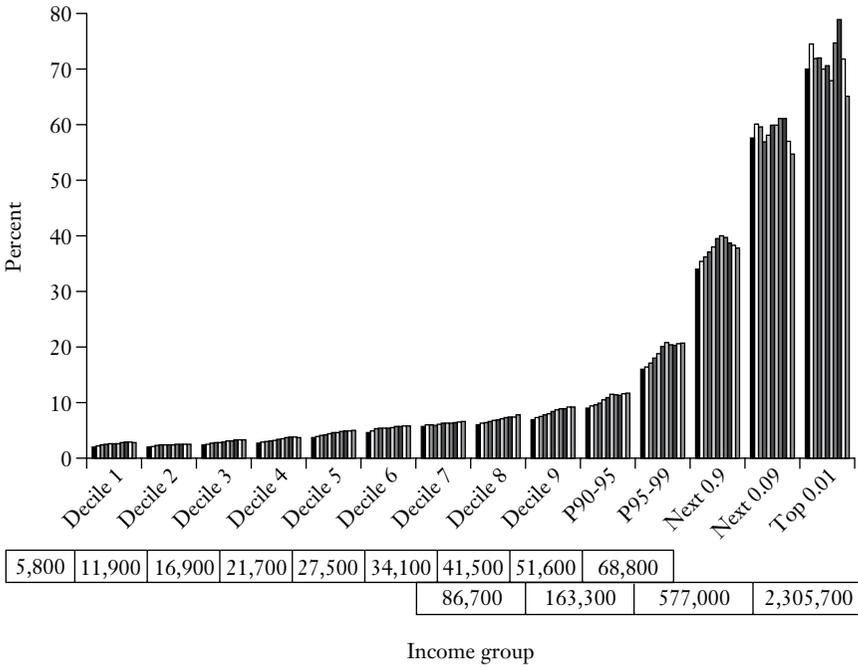
12 More precisely, the taxfiler owned at least 10 percent of at least one CCPC.

13 Some of these low-income individual CCPC owners may be spouses of high-income taxfilers.

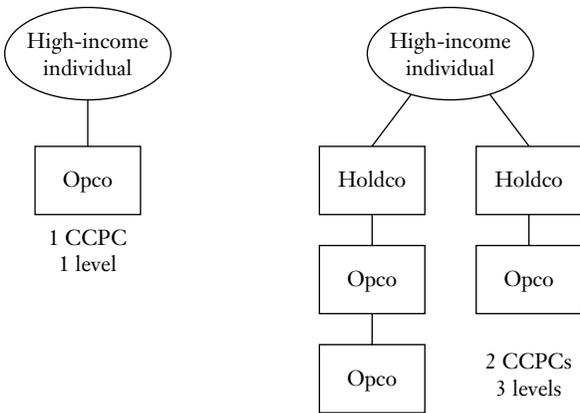
14 Some details for the first four deciles and for the top 0.01 percent have been suppressed for confidentiality reasons.

15 Change in retained earnings, discussed below.

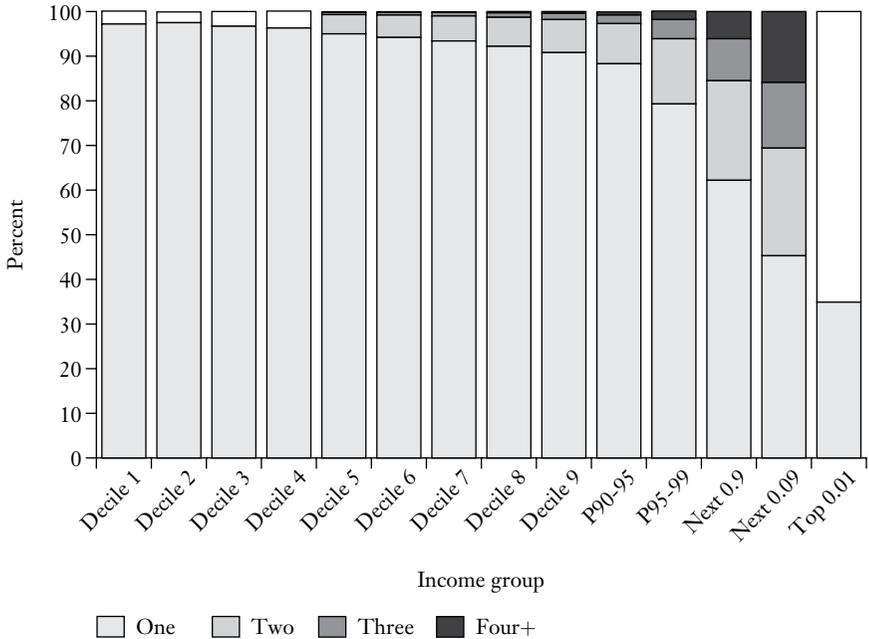
**FIGURE 6 Who Owns CCPCs—A: Percentage of Individual Income Taxfilers Owning More Than 10 Percent of the Shares of at Least One CCPC, 2001-2011, by T1 After-Tax Percentile Income Group, 2001-2011**



**FIGURE 7 Who Owns CCPCs—B: Two Indicators of Ownership Structure**



**FIGURE 8 Who Owns CCPCs—C: Among Owners, Numbers of CCPCs Directly Owned, by After-Tax Income Group, 2011**



Note: White portions of the bars for deciles 1 through 4 and top 0.01 percent indicate incomplete data (suppressed for confidentiality reasons).

firms that, while numerous, are considerably smaller, though still highly skewed; over 95 percent of all corporations were CCPCs, while their average revenue was about half, though the median CCPC revenue was almost the same as that of all corporations.

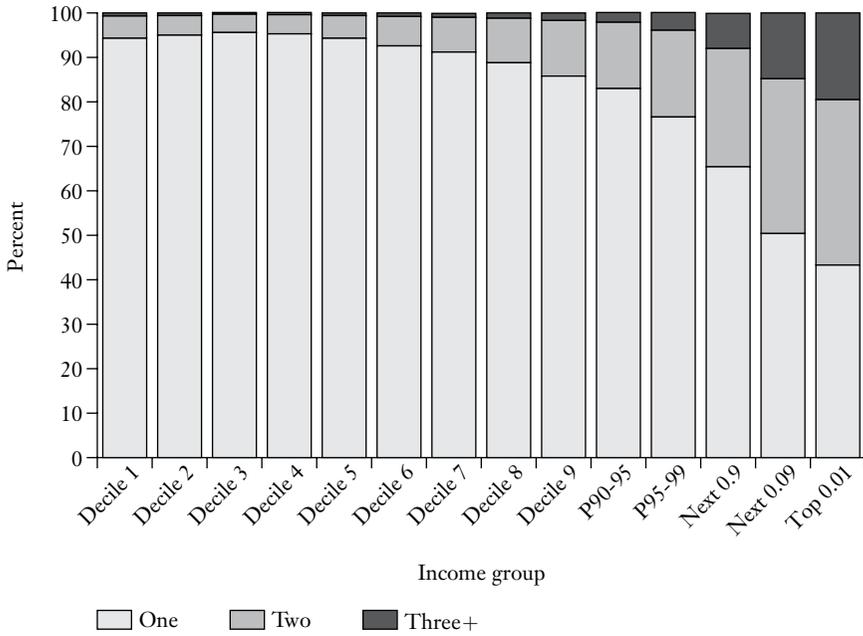
In addition to this major record linkage effort, which was done every year from 2001 to 2011 inclusive, there were two other major tasks. One is calendarization; the other is determining the appropriate percentage of each CCPC “belonging” to a given shareholder.

The majority of CCPCs have a 12-month fiscal year. But many do not, and for many of those that do, the fiscal year straddles two calendar years. Thus, it has been necessary to prorate incomes and other financial flows within each CCPC to form calendar-year amounts.

Also, relatively few CCPCs are 100 percent owned by a single shareholder. Further, a considerable number of CCPCs are owned indirectly via intermediate CCPCs as illustrated in figures 3, 4, and 5 and quantified in figure 9. Thus, it is also necessary to prorate each CCPC’s financial items to reflect ownership fractions.

The appendix provides additional details on methods and results.

**FIGURE 9 Who Owns CCPCs—D: Among Owners, Maximum Number of Levels of CCPC Ownership, by Income Group, 2011**



**MAJOR RESULTS**

The key question in this study can now be addressed: How much difference does the omission of income flowing through CCPCs make to our understanding of income inequality in Canada, including the share of the top 1 percent? We focus on income after tax using three definitions. The first is the standard concept based on total after-tax income (ATI), including actual capital gains and dividends, less federal and provincial income taxes paid as reported on individual income tax returns. The second and third add the changes ( $\Delta$ ) in retained earnings of the corporations owned by each individual, first considering only CCPCs owned directly, and then including all CCPCs whether owned directly or indirectly. The change in retained earnings being used as “income” of the CCPCs (derived from the figures reported on the general index of financial information [GIFI] portion of each CCPC’s corporate income tax return) is essentially the CCPC’s income less corporate income taxes paid<sup>16</sup>

16 The CCPC income being considered is therefore after corporate income tax, but not after any other individual income taxes payable when this income is eventually distributed to the CCPC owner, the owner’s family, or some other individuals, or the shares of the CCPC are sold or transferred in a later year.

and less dividends paid. With this latter subtraction, we avoid double-counting income received in the CCPC that is then paid out as dividends to the owner.<sup>17</sup>

On the other hand, we are failing to include any dividend payouts to the owner's family. We are also failing to capture any wages and salaries paid to family members, which would have been deducted as business expenses in determining the CCPC's income. There are other items involved in the accounting for the change in retained earnings for which more careful exploration will be required. Also, it should be recalled that we are working with a 20 percent sample. Thus, the results reported should be considered a first approximation, and likely an underestimate of CCPC income beneficially received by top-income individuals.

Figure 10 shows the time trends in income shares for the top 5 percent, top 1 percent, and top 0.1 percent before and after inclusion of CCPC income—first only for directly owned CCPCs, and then for both directly and indirectly owned CCPCs. There is a significant across-the-board increase in the shares of these top income groups when income received and retained within CCPCs is taken into account, and the level of income shares in each graph and for all years moves up with the change to the more inclusive income concepts.

A second intriguing observation is that (moving from the middle to the top line in each graph) the incremental impact of including the incomes of indirectly owned CCPCs is quite small. Most of the impact (moving from the bottom to the middle lines) is for directly owned CCPCs.

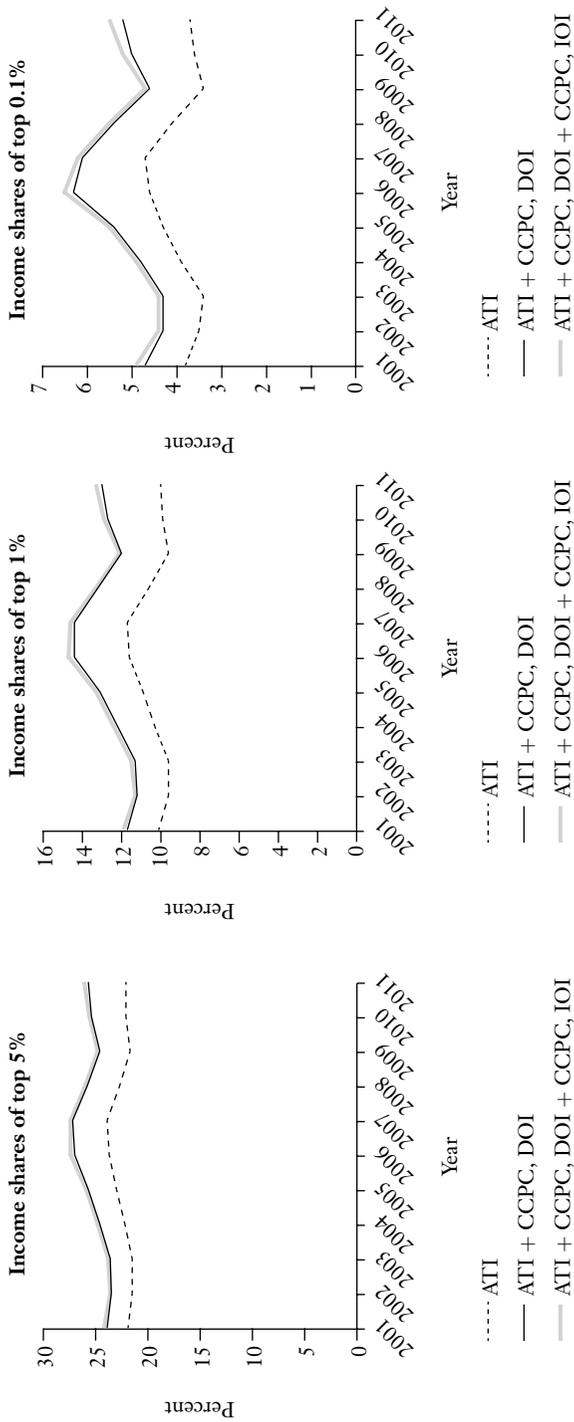
Over time, the patterns of change in top income shares are broadly similar: top income shares increased from 2001 to 2006, just before the Great Recession, then declined substantially over the next three years. But looking more closely, it is notable that in the post-Great Recession period since the 2009 low point, the recovery in top income shares is considerably larger when CCPC income is included. The top shares appear rather flat when CCPC income is not included (the bottom line in each graph), but especially for the top 0.1 percent there is a significant trend increase in income shares when CCPC income is taken into account. The implication is that the recent increase in income inequality at the top has been muted if not obscured by the omission of CCPC income.

Figure 11 focuses on the most recent year, 2011, and shows the change in top income shares between two income concepts: individual ATI as conventionally observed in the income inequality literature (and as shown in the bottom line in each graph in figure 10), and the broader income concept with all CCPC income added (corresponding to the top line in each graph in figure 10).

For each quantile group in figure 11, two bars are shown. The lighter one on the left shows the increase in income share for everyone in that group, while the darker bar to the right shows the increase for those in the group but excluding those in the

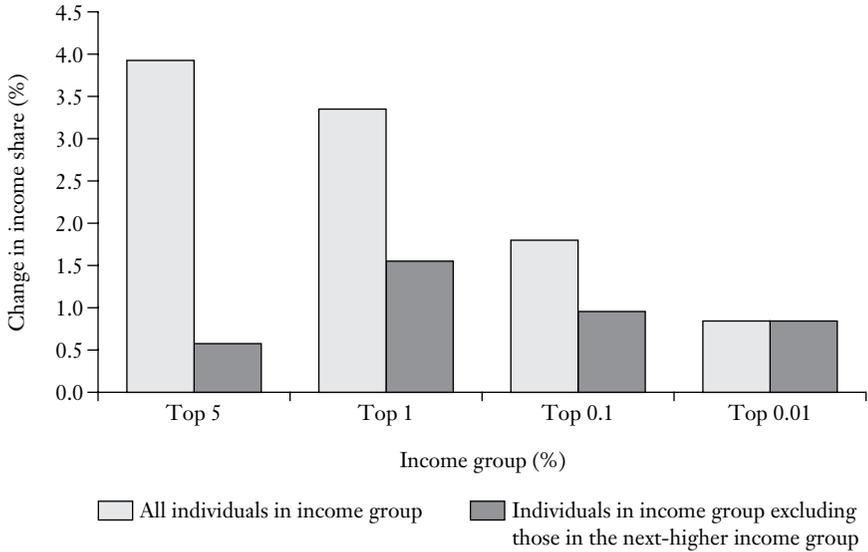
17 Specifically, CCPC income for our purposes here is defined as line 3849 minus line 3660 (GIFI short). The appendix provides further details on how this amount was derived from the available data. In future analyses, we plan to examine this income definition more closely.

**FIGURE 10 Trends in Top Income Shares, by Income Definition and Top Income Group, 2001-2011**



ATI = After-tax income.  
 CCPC, DOI = Directly owned CCPC income.  
 CCPC, IOI = Indirectly owned CCPC income.  
 Note: For each income concept, individuals have been ranked by that definition of income. Thus, individuals in the top 1 percent for after-tax income, for example, will generally not be the same as individuals in the top 1 percent for ATI plus directly owned only or directly plus indirectly owned CCPC income.

**FIGURE 11** Changes in Top Income Shares Resulting from Inclusion of CCPC Income, 2011



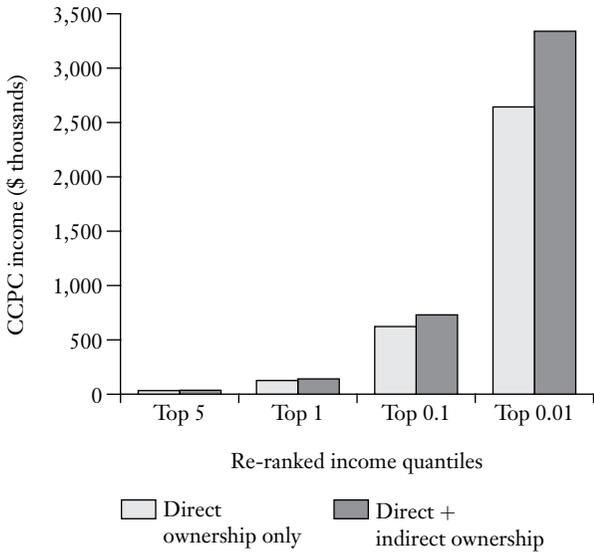
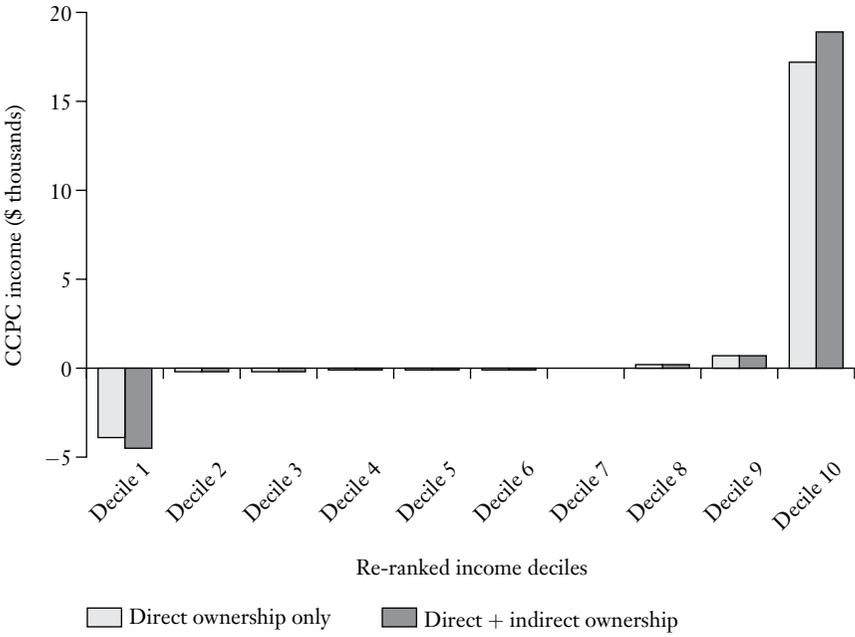
next-higher group—for example, the 95th to 99th percentiles for the darker bar in the pair of bars at the far left.

According to the conventional measure, the top 1 percent received 10.0 percent of ATI (see also table A3). When CCPC income is added, the share of the top 1 percent rises by 3.3 percentage points to 13.3 percent. As shown by the much lower dark bar for the top 5 percent, almost all of their 3.9 percentage point increase in income share was in the top 1 percent rather than in the ATI share of those in the 95th to 99th percentiles of income.

For the top 0.1 percent, the income share rises by almost half, from 3.7 percent to 5.2 percent. And for the top 0.01 percent (the one in 10,000 individuals with the highest incomes), their measured income shares almost double, from 1.3 percent to 2.1 percent of income, with the inclusion of their CCPC income.

In terms of dollar incomes, figure 12 shows the increases in average ATI for individuals attributable to owning one or more CCPCs, both directly only (lighter bars) and directly plus indirectly (darker bars). Underlying this graph, individuals have been ranked three times, once according to each of these specific income definitions. More precisely, the dark bars show the differences between average ATI + direct CCPC income for each income group based on ranking using that income definition, minus ATI-only for individuals in the same quantile income group, but ranked in terms of ATI-only; a similar procedure was used for the lighter bars. Thus, for example, the light bar for the top 1 percent in figure 12 shows average ATI + direct + indirect CCPC income of the top 1 percent of all individuals when they are ranked (sorted) by ATI plus their direct + indirect CCPC income, minus the average ATI-only

**FIGURE 12 Average Amounts of CCPC Income, by Income Quintile, 2011**



of the top 1 percent when all individuals are ranked by ATI-only. Note that by ranking individuals by their ATI plus their direct + indirect CCPC income, we are seeing the distribution of income as it would be if income inequality data were routinely produced inclusive of beneficially owned CCPC income.

It is notable that CCPC income is essentially zero in the middle 80 percent (that is, in the second to ninth income deciles). For the bottom decile, though, we see income losses, averaging about \$4,500. In the very top income groups, CCPC income is highly skewed. For the top 1 percent, taking account of CCPC income adds over \$100,000. CCPC income adds more than \$600,000 for the top 0.1 percent, and between \$2.7 and \$3.5 million to measured annual income for the top 0.01 percent (see also table A3).

## CONCLUDING COMMENTS

This is the first in a planned series of articles using the linked CCPC data and individual income tax sample database. Future analyses will explore

- what difference CCPCs make to observed progressivity and effective income tax rates across the range of incomes;
- how the importance of CCPCs varies by industry;
- the extent of income splitting with family members;<sup>18</sup> and
- the role of various tax expenditures in increasing or reducing after-tax income inequality once income flowing through CCPCs is taken into account.

These initial results clearly indicate an important role played by tax planning using CCPCs in Canada. Our understanding of the income shares accruing to individuals at the top of the income scale is significantly biased by the omission of CCPC data. Income inequality is higher than the level as conventionally measured, and the most recent trends show a divergence: the trend in top income shares since the Great Recession using conventional data is rather flat, but growing when private corporation income is imputed to the beneficial owners. In line with Piketty's comment quoted at the beginning, this article contributes to greater transparency regarding the distribution of income and wealth.

## APPENDIX—DATA AND METHODS

This article makes use of administrative data from both corporate and individual tax returns. From the corporate tax files, we have used information from the general index of financial information (GIFI) for the corporate balance sheet and income statement, and T2 Schedule 50 (T2S50) for shareholder information. Data for individual taxfilers come from Statistics Canada's longitudinal administrative databank (LAD), which includes a 20 percent sample from the T1 family file.

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18 See Wolfson and Legree, *supra* note 7.

Our broad strategy has been to use the T2S50 to identify owners of Canadian-controlled private corporations (CCPCs) and then to link the corporate balance sheet and income statement information to the CCPCs' owners. We have then linked that information to individual taxfiler income data taken from the LAD to produce a longitudinal database of 20 percent of taxfilers augmented with the corporate information.

The time period for this study is all years from 2001 through 2011. While the GIFI filing process started in 1998, data quality concerns precluded using earlier years' data.

This appendix briefly describes our data sources, outlines the processes used for linking the files to create the final file used for statistical analysis, and provides some more detailed data on results specifically for 2011.

## **T2 Schedule 50**

Under new reporting rules introduced in 1998, all CCPCs are required to list, as part of their annual tax return, the names of all shareholders who hold 10 percent or more of the shares of the CCPC. Since the owners of less than 10 percent of a CCPC's shares are not identified, our analysis underestimates the impact of income retained in a corporation on the incomes of shareholders.

For each identified shareholder, CCPCs are required to (1) provide the name of the shareholder; (2) indicate whether the shareholder was another corporation, an individual, or a trust; and (3) provide the shareholder's corresponding business number (BN), social insurance number (SIN), or trust (T) number. Additionally CCPCs are asked to provide each shareholder's percentage of common shares and percentage of preferred shares owned.

To give some idea of the magnitude of this file, in 2010 1.7 million CCPCs reported information for 4.7 million distinct ownerships. There was valid information (that is, a valid BN, SIN, or T number) for 4.2 million records of these various kinds of ownerships.

## **T2 Form 200 (GIFI Income Statement and Balance Sheet)**

All corporations are required to file a T2 "Corporation Income Tax Return" (form 200), and as part of the return must include financial statement information using GIFI schedules 100, 125, and 141. The GIFI is a uniform list of accounting items that defines a standard set of income statement and balance sheet accounts, where each item has a unique code (for example, cash is 1001).

There were 2.1 million corporations filing tax returns for fiscal periods that started or ended in 2010. Of these, 1.9 million were CCPCs with valid GIFI information. About 0.2 million CCPCs did not provide valid T2S50 shareholder information (presumably because none of the shareholders owned more than 10 percent of the CCPC), leaving 1.7 million CCPCs with both valid GIFI and valid T2S50 shareholder information.

## Longitudinal Administrative Databank (LAD)

Statistics Canada's LAD includes data for an anonymized, annual 20 percent sample of individual taxfilers for Canada from 1982 to 2011. In 2011, it contained about 5 million tax records. Records are linked longitudinally, and data are aggregated by individual filer.

We excluded from the analysis any tax returns filed in the year of death, and those for individuals living abroad. Also excluded were filers living in military barracks and in embassies.

## Data Linkage Process

The database at the core of this analysis involved an extensive process of linking various tax returns and tax schedules. This linkage process started from three different points, as illustrated in figure A1. The figure also shows the various numbers for 2010.

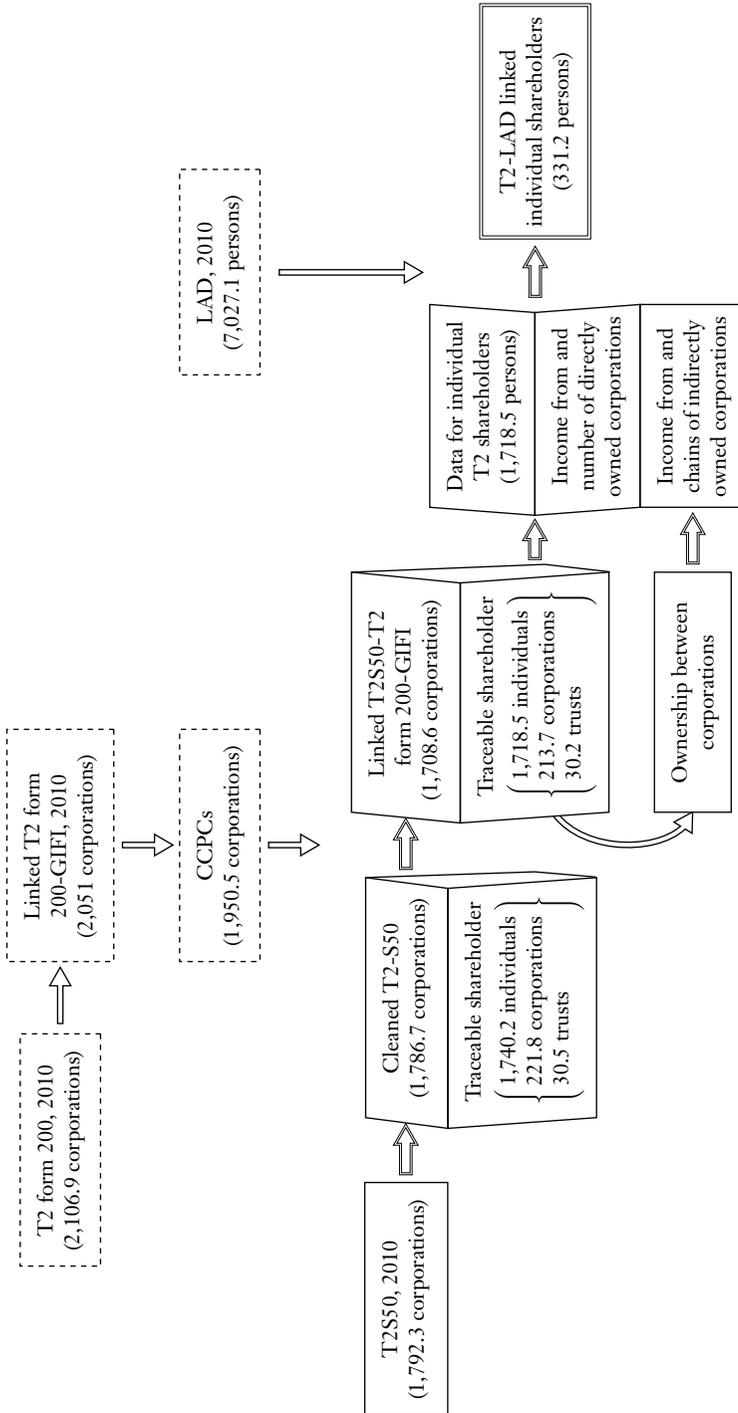
The first starting point was the main corporate income tax return, T2 form 200, of which there were over 2.1 million in 2010. These returns were first linked to the reporting of standardized financial information prescribed by the Canada Revenue Agency (CRA), resulting in 2.05 million returns being successfully linked to the GIFL. Next, all corporations other than CCPCs—about 100,000, including publicly traded corporations—were removed, leaving about 1.95 million CCPCs.

The second starting point was the T2S50, which shows the shareholders of a corporation who own 10 percent or more of the outstanding preferred or common shares. Almost 1.8 million corporations filed a T2S50 in 2010. The vast majority had adequate identification for these shareholders—either a SIN for individual shareholders, a BN for corporate owners, or a T number for trust owners.

The next key step was linking these two files—the CCPC corporate income tax returns with the GIFL financial accounting information on the one side, and the schedule showing all the shareholders with at least 10 percent of the outstanding common or preferred shares on the other. This resulted in about 1.7 million CCPCs with financial information and traceable shareholders. About 1.7 million of these traceable shareholders were individuals, over 200,000 were corporations, and about 30,000 were trusts. Just as one CCPC can have more than one owner, one shareholder may hold shares in multiple corporations. Each unique traceable individual is counted in the 1.7 million individual shareholders, while each ownership relationship linked to a particular shareholder is used to generate the amount of total income flowing through CCPCs to the shareholder (see below).

The third starting point was the 20 percent sample of individual income tax files from the LAD (which, as noted above, includes about 5 million filers). The final linkage was between the 1.7 million individual shareholders identified on CCPCs' T2S50s and the LAD individual taxfilers. Because the LAD is a 20 percent sample, the final linkage resulted in 331,000 individuals owning at least 10 percent of at least one CCPC.

**FIGURE A1 Further Details on Data Linkages**



Note: All taxfiler and shareholder numbers are in thousands. All corporation numbers are in millions.

## Determining Ownership

### *Direct*

As described above, CCPCs are required to file a T2S50 identifying all individuals, corporations, and/or trusts that own at least a 10 percent share in the corporation. If the owner is an individual, he or she is considered a direct individual owner, and the corporation that he or she owns belongs to the first level of CCPCs as shown in figure 7 in the main text. These individual shareholders are identifiable with a valid SIN reported on the T2S50, which allows the tracing of a possible link with LAD records. In 2010, a large majority of T2S50 individual owners (81 percent) were directly associated with only one CCPC.

### *Indirect*

Information reported in T2S50s also makes it possible to identify CCPCs that are indirectly owned by an individual taxfiler. When a CCPC is listed as a shareholder on a T2S50 filed by another CCPC, an intercorporate ownership link is established. An intermediate file was created with all these intercorporate ownership links, based on the T2S50 data. By connecting CCPCs with other CCPCs as owners, we were able to make a further connection to individual owners whenever one of these other CCPCs had a direct owner. These individuals were thus identified as indirect owners of a CCPC.

### *Levels of Ownership*

By applying the approach described above for indirect ownership to CCPCs that were already indirectly owned, we also identified further levels of ownership links. By repeating this approach until no more intercorporate ownership links could be found, we were able to connect each CCPC, even if owned only by other CCPCs, back the first-level directly owned CCPC, and then to its individual owner. The individual shareholder and all CCPCs owned directly or indirectly by the individual form a chain of ownership. All these chains belonging to the same individual form a complete ownership network, identified by using the T2S50s. As shown in figure 9 in the main text, most individual shareholders had only one level of ownership—that is, direct ownership.

### *Fractions of Ownership*

Given the network of ownership links described above, it was then necessary to determine what fraction of each CCPC's income should be allocated to a given individual owner. (Both directly and indirectly owned CCPCs may have more than one individual owner.)

To do this, we calculated share weights for each shareholder of a CCPC based on all of its shares reported on the T2S50. It is possible for a CCPC to issue both common and preferred shares, and for each of these types of shares to be composed of various classes, including some with voting rights and others without. This range of share

types is important for some kinds of tax planning, such as estate freezes. However, the T2S50 does not collect any of this detailed share information; it only makes a distinction between common and preferred shares. This data limitation importantly circumscribed our ability to determine accurately the beneficial ownership of CCPC income. As an approximation, we have given equal weight to both common and preferred shares to define ownership fractions.

To begin illustrating the method used, figure A2 provides an actual T2S50 with hypothetical information, where the CCPC is owned by a combination of at least the two individuals and one other CCPC shown explicitly on the return. Since the total percentage of both common and preferred share ownership reported on the form is less than 100 percent for each type of share, there must be other shareholders, none of whom owns 10 percent or more of the outstanding shares of each type and therefore need not be listed on this form.

If we add up the reported ownership fractions, they total 80 percent for common shares and 80 percent for preferred shares. The method for determining income fractions, while somewhat arbitrary, starts with the total possible ownership, 200 percent, as the denominator. Then in this example individual A is deemed to own 40/200 or 20 percent of this hypothetical CCPC.

If, in this same example, CCPC P owned a portion of CCPC Q, we would use the same approach to determine what fraction of CCPC Q's income "belongs" to CCPC P.

### ***CCPC Income***

As noted in the main text, we have not used net income, for either book or tax purposes, as our income concept. The main reason is that in neither case does this income concept subtract dividends paid. The CCPC owner may be paying himself or herself some of these dividends, and we would be double-counting such dividends if we simply added net income from CCPCs to income reported on individual income tax returns. The alternative we have used is based on retained earnings as reported on the GIFI. Each corporation filing a GIFI is required to report its retained earnings/deficit at both the beginning and the end of the fiscal year. We have subtracted the retained earnings at the beginning of the fiscal year from the retained earnings at the end of the fiscal year in order to arrive at our concept of CCPC income (sometimes referred to as "Δ retained earnings").

### ***Calendarization***

A process of calendarization was then applied to arrive at annual income for each CCPC on a calendar-year basis, to align with the accounting period for individual income tax returns.

This is necessary because the fiscal reporting periods of CCPCs do not necessarily correspond to a calendar year. In fact, the fiscal period of a corporation can start or end on any day of a calendar year, and need not always have a duration of 365 days.

For firms with fiscal periods that span calendar-year boundaries (December 31/January 1), we allocated the relevant financial flows (not stocks like assets, or opening or closing retained earnings) proportionally to the number of days in each of the

**FIGURE A2** CRA T2 Schedule 50 (T2S50) with Hypothetical Share Ownership Information

**SCHEDULE 50**  
Code 5001

Protector B when completed

**SHAREHOLDER INFORMATION (2006 and later tax years)**

All private corporations must complete this schedule for any shareholder who holds 10% or more of the corporation's common and/or preferred shares.

1	2	3	Provide only one number per shareholder				4	5	6
			Business Number (if a corporation is not registered, enter "000")	Social Insurance Number	Trust number	Percentage common shares			
	Name of shareholder (Other name, indicate in brackets if the shareholder is a corporation, partnership, individual, or trust)								
1	Individual A					40	0		
2	Individual B					20	51		
3	CCPC P					20	29		
4									
5									
6									
7									
8									
9									
10									

(This section cannot be finished on form T2S50 and its amendments; to get complete go to [www.cra.gc.ca](http://www.cra.gc.ca))



two calendar years involved. We then aggregated the amounts from all (short) fiscal periods that fell fully within the calendar year and those that were partially allocated to the calendar year, to get the calendarized total annual amounts.

For example, when calendarizing the year 2010, if the first fiscal period ran from July 23, 2009 through July 22, 2010, we would take the proportion of the total that fell in 2010 (that is, the number of days of that fiscal period that fell in the calendar year divided by the total number of days in the fiscal period multiplied by the aggregate amount for the fiscal period) and add to it the similarly calculated proportion of the second fiscal period that fell within the calendar year. In rare cases where fiscal periods overlapped, we gave priority to the first fiscal period and reduced the prorated contribution of the second fiscal period to just those days that fell within the calendar year but did not overlap with the first period.

### *Cleaning the Data*

Not all the microdata contained in the T2S50 or the T2 form 200-GIFI were usable. We dropped a number of records for various reasons. The cumulative impact of these exclusions on aggregate corporate income, assets, and net retained earnings is detailed in table A1.

The raw microdata included a number of duplicate records that were identified and removed.

Not all fields of a given T2S50 contained valid data for the SIN or BN of the shareholder. Because these are the keys used to link to the LAD and to determine ownership chains, CCPCs without this information had to be excluded from the analysis. However, before dropping such a record, we first attempted to impute the SIN by examining data for the same entity (wherever possible) in other fiscal periods.

Not all forms received by the CRA were fully completed. In some cases, CCPCs filed a T2S50 with a list of shareholders but did not provide the fraction information for some of those shareholders. These records were excluded.

When filing a T2S50, a CCPC is required to provide both the names of shareholders and their identification (ID) numbers. Although it is clearly indicated on the form that only one of the three numbers (BN, SIN, or T number) should be provided, in the raw data there are records where one shareholder has both a BN and a SIN reported. In these cases, we checked the name of the shareholder together with the validation of the associated BN and SIN to determine whether this was an individual shareholder, a corporate shareholder, or an invalid record, so that an appropriate ID number could be assigned and used to trace the shareholder and its ownership relationships.

Further, some T2S50 records had a SIN for a given shareholder, but the name showed that this shareholder was clearly a corporation (that is, the name ended in Ltd. or Inc.). We considered the types of shareholders for these records to be unidentifiable, and thus excluded them from the linkage to the LAD.

As shown in the first two columns of table A1, almost all corporations in Canada that filed a T2 200 and provided GIFI for at least one fiscal period in 2010 were CCPCs—1.95 million out of a total of 2.05 million. But the 100,000 non-CCPC corporations were the largest, accounting for over half of total revenue—\$1.8 trillion

**TABLE A1 T2 Form 200 Corporation<sup>a</sup> and Shareholder Samples, 2010**

	All corporations (N = 2,051)	CCPCs (N = 1,951)	CCPCs filing T2S50 (N = 1,725)	CCPCs with shareholder information in T2S50 (N = 1,719)
<b>Total revenue</b>				
Sum (\$ millions) . . . . .	3,546,100	1,695,172	1,486,680	1,485,471
Percent . . . . .	100	48	42	42
Mean (\$) . . . . .	1,728,968	869,080	861,907	863,997
Median (\$) . . . . .	96,441	96,041	104,919	105,336
<b>Net income/loss</b>				
Sum (\$ millions) . . . . .	385,777	151,862	137,420	137,407
Percent . . . . .	100	39	36	36
Mean (\$) . . . . .	196,616	81,316	83,371	83,606
Median (\$) . . . . .	1,691	1,845	2,908	2,949
<b>Assets</b>				
Sum (\$ millions) . . . . .	11,502,956	2,680,931	2,101,751	2,099,995
Percent . . . . .	100	23	18	18
Mean (\$) . . . . .	5,608,484	1,374,459	1,218,497	1,221,424
Median (\$) . . . . .	128,183	125,221	142,360	143,130
<b>Δ retained earnings</b>				
Sum (\$ millions) . . . . .	139,425	49,952	48,081	48,082
Percent . . . . .	100	36	34	34
Mean (\$) . . . . .	69,011	25,983	27,958	28,047
Median (\$) . . . . .	na	na	na	na

Note: N = thousands of corporations.

<sup>a</sup> Corporations filing a T2 form 200 and reporting GIFL, and with at least one fiscal period in 2010.

out of a total of \$3.5 trillion in 2010, leaving \$1.7 trillion in the hands of CCPCs. Similarly, these non-CCPC corporations, most of which were public corporations listed on stock exchanges, had well over half the net income—about \$230 billion out of a total of \$386 billion. The difference in assets is even more striking, with CCPCs holding only about one-quarter—\$2.7 trillion out of \$11.5 trillion.

The last three columns of table A1 show that the impacts of CCPCs excluded from our analysis because they were lacking T2S50 forms with usable shareholder information were modest. The analysis was able to use data for 1.72 million CCPCs out of a total of 1.95 million, and \$48.1 billion out of a total of \$50.0 billion of net retained earnings.

Table A2 starts with the last column of table A1 and indicates the fractions of the major financial items that were ultimately allocated to owners. Out of a total of \$48.1 billion of net retained earnings made by CCPCs with shareholder information, \$47.8 billion could be allocated to shareholders that were reported on a T2S50, leaving \$300 million belonging to those shareholders who held less than 10 percent of either common or preferred shares. Of the \$47.8 billion that could be assigned to

**TABLE A2 T2 Schedule 50 Sample Selections, 2010<sup>a</sup>**

	T2S50 CCPCs	With shares belonging to shareholders on T2S50	Individual shareholders (N = 1,719)	Corporate/ trust shareholders (N = 214)	Other shareholders (non- traceable or require manual editing)
<b>Total revenue</b>					
Sum (\$ millions) . . .	1,485,471	1,451,024	650,416	665,295	135,313
Percent . . . . .	100	98	44	45	9
<b>Net income/loss</b>					
Sum (\$ millions) . . .	137,407	133,865	66,477	54,037	13,352
Percent . . . . .	100	97	48	39	10
<b>Assets</b>					
Sum (\$ millions) . . .	2,099,995	1,997,188	852,068	918,170	226,950
Percent . . . . .	100	95	41	44	11
<b>Δ retained earnings</b>					
Sum (\$ millions) . . .	48,082	47,794	30,920	15,127	1,746
Percent . . . . .	100	99	64	31	4

Notes: N = thousands of shareholders. All dollar amounts are in millions.

<sup>a</sup> Starting from last column of table A1.

shareholders listed on a T2S50, \$30.9 billion could be assigned to individual shareholders and \$15.1 billion to corporation/trust shareholders, with the remaining \$1.7 billion being left untraceable owing to unidentifiable shareholders mentioned earlier in the section on data cleaning.

Table A3 provides the numbers underlying figure 12 in the main text plus some additional data. The first three rows show the mean incomes for each of the three income concepts for all the quantile groups examined—first the 10 income deciles, and then 4 top-income groups of decreasing size. Recall that for each income concept, individuals have been ranked by that definition of income.

For example, average incomes hardly change at all for deciles 2 through 9; in fact for the first 6 deciles, average incomes decrease, and there are losses in decile 1. As noted in the discussion of figure 12 in the main text, some CCPCs experienced losses, and the CCPC owners with such losses are concentrated in decile 1. At the top of the income spectrum, in contrast, incomes increase substantially with the move to inclusion of beneficially owned CCPC income.

The next three rows show the shares of aggregate income accruing to the various income groups, again for the same three income concepts. For example, the shares of those in the middle—deciles 5 and 6—both drop by 0.6 percentage points when both directly and indirectly owned CCPC income is included. The share of the top 1 percent increases by 1.8 percentage points from 7.3 percent to 9.1 percent—that is, by about one-quarter.

The last three rows show the proportions of each income group with any CCPC ownership. In these rows, the proportions shift because individuals are being ranked

**TABLE A3 Selected Data by Income Group for Three Income Concepts**

Income concept	Decile 1	Decile 2	Decile 3	Decile 4	Decile 5	Decile 6	Decile 7	Decile 8	Decile 9	Decile 10	Top 5%	Top 1%	Top 0.1%	Top 0.01%	
<b>Mean incomes (\$)</b>															
<b>After-tax income</b>															
(ATI) .....	1,700	9,100	14,500	19,200	24,500	30,800	37,700	46,200	59,200	118,100	159,800	359,900	1,328,700	4,690,600	
ATI + direct only...	-2,200	8,900	14,300	19,100	24,400	30,700	37,700	46,400	59,900	135,300	192,400	485,400	1,950,700	7,333,000	
ATI + direct + indirect .....	-2,800	8,900	14,300	19,100	24,400	30,700	37,700	46,400	59,900	137,000	195,700	500,200	2,058,000	8,029,300	
<b>Income shares (%)</b>															
ATI .....	0.5	2.5	4.0	5.3	6.8	8.5	10.4	12.8	16.4	32.7	22.1	10.0	3.7	1.3	
ATI + direct only...	-0.6	2.4	3.8	5.1	6.5	8.2	10.1	12.4	16.0	36.1	25.7	13.0	5.2	2.0	
ATI + direct + indirect .....	-0.7	2.4	3.8	5.1	6.5	8.2	10.0	12.3	16.0	36.5	26.1	13.3	5.5	2.1	
<b>CCPC owners (%)</b>															
ATI .....	2.9	2.5	3.3	3.7	4.7	5.5	6.5	7.6	9.3	18.7	25.6	40.8	57.4	66.9	
ATI + direct only...	6.1	2.7	2.9	3.1	3.9	4.4	5.0	5.9	8.0	22.7	33.8	60.8	76.7	84.5	
ATI + direct + indirect .....	6.3	2.7	2.9	3.1	3.9	4.4	4.9	5.9	7.9	22.8	34.0	61.5	77.5	85.7	

or sorted differently. For example, when individuals are ranked by their after-tax income alone, 2.9 percent of those in decile 1 show up as CCPC owners, while 40.8 percent of those in the top 1 percent are CCPC owners. But when individuals are ranked by their after-tax income plus all their CCPC income, the proportion of owners at both ends of the income spectrum increases. The proportion of owners in decile 1 increases because they have losses in their CCPCs that are now being taken into account; and the proportions in decile 10 and the highest income groups also increase because their CCPC incomes are large. In fact, for the top 0.01 percent, 85.7 percent are CCPC owners, and their CCPC income increases their income share from 0.9 percent to 1.5 percent, a two-thirds increase.