

## TAX REFORM IN QUÉBEC: AN ALTERNATIVE VISION

Robin Boadway et Jean-François Tremblay

Volume 93, numéro 3, septembre 2017

URI : <https://id.erudit.org/iderudit/1058425ar>

DOI : <https://doi.org/10.7202/1058425ar>

[Aller au sommaire du numéro](#)

Éditeur(s)

HEC Montréal

ISSN

0001-771X (imprimé)

1710-3991 (numérique)

[Découvrir la revue](#)

Citer cet article

Boadway, R. & Tremblay, J.-F. (2017). TAX REFORM IN QUÉBEC: AN ALTERNATIVE VISION. *L'Actualité économique*, 93(3), 339–366. <https://doi.org/10.7202/1058425ar>

Résumé de l'article

*Une vision alternative de réforme fiscale pour le Québec.* – L'évidence empirique récente indique que les inégalités de revenu et de richesse ont augmenté sans être compensées par des changements au système d'imposition et de transferts aux particuliers. La progressivité du système fiscal est limitée et les abris fiscaux s'appliquant aux revenus du capital se sont accentués. Une partie importante des inégalités croissantes sont le résultat de rentes économiques à divers contribuables, particuliers ou entreprises. Le récent rapport Mirreles, qui s'appuie sur l'état des connaissances en matière de fiscalité optimale, a proposé un certain nombre de réformes fiscales visant l'imposition des rentes, quoique dans un contexte de neutralité distributive. Nous proposons un programme de réformes fiscales pour le Québec et le Canada qui peut à la fois améliorer l'efficacité et l'équité. Plusieurs de nos propositions diffèrent de façon importante de celles de la Commission d'examen sur la fiscalité québécoise.

À notre avis, la taxation des revenus du capital demeure très pertinente. Elle constitue un complément aux politiques de redistribution, notamment parce que les revenus du capital incluent des rentes économiques bénéficiant de façon disproportionnée aux individus à revenus élevés. Au niveau de l'imposition des particuliers, nous privilégions un système de taxation des revenus du capital comportant les éléments suivants. Premièrement, les abris fiscaux tels que le régime enregistré d'épargne retraite (REER) et les comptes d'épargne libre d'impôt (CEL) devraient être limités de façon à s'assurer qu'une partie importante des revenus de capital des individus à revenus élevés soit imposable. Il est préférable que les plafonds de contribution soient plus généreux pour le REER que pour les CELI étant donné que les gains inattendus et les rentes économiques sont imposables dans le cadre du REER mais ne le sont pas dans le cadre des CELI. Deuxièmement, les gains en capital sur les résidences principales, au-delà d'une exonération cumulative maximale, devraient être imposables. Troisièmement, un impôt sur les successions, qui surpasse un seuil d'exonération relativement élevé, devrait être introduit de façon à réduire la transmission des inégalités de richesse entre générations et de favoriser l'égalité des opportunités.

Nous recommandons un changement fondamental au rôle joué par le système d'imposition des entreprises. À notre avis, le système actuel, qui agit principalement comme mécanisme de retenue à la source de façon à éviter que les actionnaires puissent reporter ultérieurement le paiement d'impôt sur les profits, devrait être remplacé par un impôt sur les flux monétaires des entreprises, ou de façon équivalente, un impôt sur les rentes économiques. Cette recommandation est notamment justifiée par le fait que l'incidence de l'impôt qui s'applique sur le rendement normal du capital ajusté pour le niveau de risque est supportée en grande partie par la main-d'oeuvre étant donné la forte mobilité internationale des capitaux. De plus, le mécanisme de retenue à la source que constitue le système d'imposition actuel n'est plus requis dans la mesure où une proportion élevée des revenus du capital bénéficie d'abris fiscaux. Plusieurs types d'impôts sur les flux monétaires des entreprises, ou sur les rentes économiques, sont équivalents. Parmi ceux-ci, le système qui consiste à accorder une déduction fiscale pour fonds propres au taux d'intérêt exempt de prime de risque, en plus des déductions pour paiements d'intérêts et pour amortissement, pourrait être mis en place sans difficulté. L'adoption d'un impôt sur les rentes économiques permettrait d'atténuer les effets dissuasifs du système actuel sur l'investissement, l'innovation et la croissance. L'incitation à financer les investissements par emprunts serait également éliminée.

De plus, nous croyons que les mesures d'intégration des systèmes d'imposition des particuliers et des entreprises ne sont plus nécessaires. Ainsi, nous recommandons l'abolition du crédit d'impôt pour dividendes et de la déduction pour gain en capital. Ces mesures permettraient également de compenser l'effet de l'adoption d'une déduction fiscale pour fonds propres sur les revenus du gouvernement.

Les entreprises incorporées et non incorporées devraient être imposées de la même façon. La déduction pour petite entreprise devrait être maintenue. Elle permet notamment de compenser pour le traitement fiscal asymétrique des profits et des pertes, particulièrement dans le cas des entreprises qui déclarent faillite. Cependant, une limite cumulative à vie devrait être introduite, ce qui permettrait d'atténuer l'effet dissuasif sur la croissance des petites entreprises.

La croissance des inégalités justifie un niveau accru de progressivité dans le système d'imposition des particuliers, autant au bas qu'au haut de la distribution des revenus. Pour ce faire, nous proposons d'ajouter un palier d'imposition s'appliquant au décile supérieur des revenus et de rendre remboursables tous les crédits d'impôts.

Pour assurer l'harmonisation des systèmes d'imposition, il serait préférable que les réformes proposées soient adoptées par les deux ordres de gouvernement. Cependant, plusieurs d'entre elles pourraient aisément être mise en place unilatéralement par le gouvernement du Québec.

## TAX REFORM IN QUÉBEC: AN ALTERNATIVE VISION\*

Robin BOADWAY  
*Queen's University*  
boadwayr@econ.queensu.ca

Jean-François TREMBLAY  
*University of Ottawa*  
jean.francois.tremblay@uottawa.ca

RÉSUMÉ – *Une vision alternative de réforme fiscale pour le Québec.* – L'évidence empirique récente indique que les inégalités de revenu et de richesse ont augmenté sans être compensées par des changements au système d'imposition et de transferts aux particuliers. La progressivité du système fiscal est limitée et les abris fiscaux s'appliquant aux revenus du capital se sont accentués. Une partie importante des inégalités croissantes sont le résultat de rentes économiques à divers contribuables, particuliers ou entreprises. Le récent rapport Mirrlees, qui s'appuie sur l'état des connaissances en matière de fiscalité optimale, a proposé un certain nombre de réformes fiscales visant l'imposition des rentes, quoique dans un contexte de neutralité distributive. Nous proposons un programme de réformes fiscales pour le Québec et le Canada qui peut à la fois améliorer l'efficacité et l'équité. Plusieurs de nos propositions diffèrent de façon importante de celles de la Commission d'examen sur la fiscalité québécoise.

À notre avis, la taxation des revenus du capital demeure très pertinente. Elle constitue un complément aux politiques de redistribution, notamment parce que les revenus du capital incluent des rentes économiques bénéficiant de façon disproportionnée aux individus à revenus élevés. Au niveau de l'imposition des particuliers, nous privilégions un système de taxation des revenus du capital comportant les éléments suivants. Premièrement, les abris fiscaux tels que le régime enregistré d'épargne retraite (REER) et les comptes d'épargne libre d'impôts (CÉLI) devraient être limités de façon à s'assurer qu'une partie importante des revenus de capital des individus à revenus élevés soit imposable. Il est préférable que les plafonds de contribution soient plus généreux pour le REER que pour les CELI étant donné que les gains inattendus et les rentes économiques sont imposables dans le cadre du REER mais ne le sont pas dans le cadre des CELI. Deuxièmement, les gains en capital sur les résidences principales, au-delà d'une exonération cumulative maximale, devraient être imposables. Troisièmement, un impôt sur les successions, qui surpassent un seuil d'exonération relativement élevé, devrait être introduit de façon à réduire la transmission des inégalités de richesse entre générations et de favoriser l'égalité des opportunités.

Nous recommandons un changement fondamental au rôle joué par le système d'imposition des entreprises. À notre avis, le système actuel, qui agit principalement comme mécanisme de retenue à la source de façon à éviter que les actionnaires puissent reporter ultérieurement le paiement d'impôt sur les profits, devrait être remplacé par un impôt sur les flux monétaires des entreprises, ou de façon équivalente, un impôt sur les rentes économiques. Cette recommandation est notamment justifiée par le fait que l'incidence de l'impôt qui s'applique sur le rendement normal du capital ajusté pour le niveau de risque est supportée en grande partie par la main-d'œuvre étant donné la forte mobilité internationale des capitaux. De plus, le mécanisme de retenue à la source que constitue le système d'imposition actuel n'est plus requis dans la mesure où une proportion élevée des revenus du capital bénéficie d'abris fiscaux. Plusieurs types d'impôts sur les flux monétaires des entreprises, ou sur les rentes économiques, sont équivalents. Parmi ceux-ci, le système qui consiste à accorder une déduction fiscale pour fonds propres au taux d'intérêt exempt de prime de risque, en plus des déductions pour paiements d'intérêts et pour amortissement, pourrait être mis en place sans difficulté. L'adoption d'un impôt sur les rentes économiques permettrait d'atténuer les effets dissuasifs du système actuel sur l'investissement, l'innovation et la croissance. L'incitation à financer les investissements par emprunts serait également éliminée.

De plus, nous croyons que les mesures d'intégration des systèmes d'imposition des particuliers et des entreprises ne sont plus nécessaires. Ainsi, nous recommandons l'abolition du crédit d'impôt pour dividendes et de la déduction pour gain en capital. Ces mesures permettront également de compenser l'effet de l'adoption d'une déduction fiscale pour fonds propres sur les revenus du gouvernement.

Les entreprises incorporées et non incorporées devraient être imposées de la même façon. La déduction pour petite entreprise devrait être maintenue. Elle permet notamment de compenser pour le traitement fiscal asymétrique des profits et des pertes, particulièrement dans le cas des entreprises qui déclarent faillite. Cependant, une limite cumulative à vie devrait être introduite, ce qui permettrait d'atténuer l'effet dissuasif sur la croissance des petites entreprises.

La croissance des inégalités justifie un niveau accru de progressivité dans le système d'imposition des particuliers, autant au bas qu'au haut de la distribution des revenus. Pour ce faire, nous proposons d'ajouter un palier d'imposition s'appliquant au décile supérieur des revenus et de rendre remboursables tous les crédits d'impôts.

Pour assurer l'harmonisation des systèmes d'imposition, il serait préférable que les réformes proposées soient adoptées par les deux ordres de gouvernement. Cependant, plusieurs d'entre elles pourraient aisément être mise en place unilatéralement par le gouvernement du Québec.

**ABSTRACT** – Recent evidence indicates that income and wealth inequality have been increasing, while the tax-transfer system has not responded. If anything, progressivity has decreased and capital income has become increasingly sheltered. Arguably, a significant amount of the increase in inequality reflects windfall gains or rents to various taxpayers, both individuals and firms. Recent proposals by the Mirrlees Review, drawing on lessons from optimal tax analysis, include some ways that the tax system can be reformed to tax windfall gains, albeit in a context limited by distribution-neutrality. We propose a tax reform agenda for Québec and Canada that can both improve efficiency and fairness. Our proposals contrast with those of the Québec Taxation Review Committee.

In our view, there is a strong case for taxing capital income as part of redistribution policy, in part because capital income includes unexpected gains, or rents, that accrue

disproportionately to high-income persons. Our preferred treatment of capital income at the personal level would include the following. First, strict limits on tax sheltering should be maintained to ensure that some capital income is taxable for high-income persons. Contribution limits should be more generous for RRSPs than for TFSA's given that unexpected returns are taxed under the former but exempted under the latter. Second, capital gains on housing, above some lifetime exemption level, should be taxed. Third, a tax on large inheritances should be introduced to reduce the intergenerational transmission of wealth inequality and promote equality of opportunity.

At the corporate level, we recommend a fundamental change in the role that the system is meant to play. The current system, which is designed to serve as a withholding device for the personal tax by taxing shareholder income at source, should be replaced by a cash-flow tax system, or equivalently a rent-based corporate tax. This recommendation is motivated by the fact that the corporate tax on normal risk-adjusted return is largely shifted to labour given the high degree of international capital mobility. Moreover, the withholding role of the corporate tax has become unnecessary given that most capital income is now sheltered from the personal tax. Among the different cash-flow equivalent taxes available, the allowance for corporate equity tax would be the easiest to implement. It would simply involve adding a deduction for the cost of equity finance at the risk-free interest rate in addition to the deductions for interest and depreciation that currently exist. The adoption of a cash-flow equivalent tax would mitigate the disincentives for investment, innovation and growth that the current system imposes. As well, it would eliminate the incentive to finance investment by debt.

In addition, we argue that the integration of the personal and corporate income taxes has become largely unnecessary. Therefore, we recommend eliminating the dividend tax credit and the preferential treatment of capital gains. Doing so would also offset the revenue cost of adopting a rent-based corporate tax.

The same tax base should apply to incorporated and unincorporated businesses. The small business deduction should be maintained, given that it compensates for the imperfect refundability of tax losses for bankrupt firms. However, cumulative lifetime limits should be adopted so firms are not rewarded for staying small.

Increased income inequality calls for more progressivity of the tax system both at the top and bottom of the income distribution. This could be achieved by adding a new tax bracket for the top decile of taxpayers and making all tax credits refundable.

To maintain some harmonization, these reforms should ideally be adopted by both orders of government. However, several proposals could be adopted unilaterally by the Québec government with relatively little difficulty.

## INTRODUCTION

The *Report of the Québec Taxation Review Committee* (2015), hereafter the Godbout Report, was a comprehensive evaluation of the tax system in Québec leading to over seventy recommendations for reform. The main thrust of the recommendations was to create a tax system that was efficient, that fostered growth, competitiveness and employment, and that retained fairness. Roughly speaking, the reforms would broaden income tax bases, substitute sales and excise taxes for income taxes, increase income tax progressivity, and increase reliance on user fees. Reforms would be phased in according to their degree of complexity and the need to coordinate

with other governments, both federal and provincial. The reforms would be incremental in the sense that they would represent amendments to the current system of taxation without fundamentally changing its philosophy. An exception is Recommendation 28 to examine the implementation of a Scandinavian-style dual income system, which would be potentially more transformative if implemented.

The Godbout Report follows major tax reform proposals done elsewhere, including the President's Panel on Tax Reform (2005) in the USA, the Henry Review (2010) in Australia, and the Mirrlees Review (2011) in the UK. These have recommended more fundamental reforms than those in the Godbout Report, but like the Godbout Report have been largely redistribution-neutral. Recently, the adequacy of the tax system has been tested by evidence of growing inequality of earnings, of wealth and of opportunity, documented by the OECD (2008, 2011), Atkinson and Piketty (2007), Atkinson, Piketty, and Saez (2011), Fortin, Green, Lemieux, Milligan, and Riddell (2012), Corak (2013), Piketty (2013) and Chetty, Hendren, Kline, Saez, and Turner (2014). The consequences of this growing inequality for tax policy have only begun to be explored, and depend on to what one attributes the inequality: skill-intensive technical change, globalization, luck, entrepreneurship, rent-seeking, etc. Thus, Piketty advocates taxation of wealth and wealth transfers, while Stiglitz (2012) and Diamond and Saez (2011) favor increased income tax progressivity especially at the top. Others, such as the Mirrlees Review (2011) and Boadway (2015), suggest taxing rents as they accrue, and yet others might emphasize encouraging equality of opportunity (Corak, 2013) and innovation (Howitt, 2015). In any case, these concerns about inequality suggest that tax policy recommendations cannot be neutral on redistribution, and should involve the tax treatment of asset income and inheritances.

The purpose of this paper is to revisit the taxation of asset and business income in Canada and Québec as part of an efficient and fair system of taxation and in light of the Godbout Report. In so doing we draw on findings in recent tax policy literature, recommendations from the tax reform review processes mentioned above, and best practices that have been observed around the world. Our approach will contrast significantly with the Godbout Report. Drawing on Boadway and Tremblay (2014, 2016), we argue for a fundamentally different rationale for business taxation based on taxing economic rents where and when they originate, and this approach complements significant reforms of the taxation of personal asset income. Our proposals entail both more efficient business taxation and more progressive personal taxation, which we argue are not incompatible.

We begin in the next section with some conceptual foundations of capital and business income taxation. This is followed by a brief summary of relevant features of the Canadian and Québec tax systems including a discussion of the constraints the Canadian federal structure places on taxation in Québec. Key recommendations of the Godbout Report are then reviewed. Finally, we present a set of tax reform proposals as a partial alternative to those of the Godbout Report, focusing mainly on the tax treatment of personal asset income and business income.

## 1. PRINCIPLES OF CAPITAL TAXATION

Tax design is informed by many conflicting principles, and it is worth being explicit about possible approaches at the outset. The standard list includes the key objectives of efficiency, equity, and ease of administration. These, among others, are alluded to in the Godbout Report. There are two problems with this list as it stands. The first is that efficiency and equity are interdependent and cannot be pursued separately. Equitable tax systems are necessarily inefficient in the sense that it is virtually impossible to improve equity without compromising efficiency: at best, optimal tax systems are only second-best efficient. Tax reform involves trading off efficiency and equity, and reasonable persons can disagree on the preferred trade-off. This issue is sometimes suppressed by proposing tax reform proposals that are roughly distribution-neutral. The Mirrlees Review (2011) is an outstanding example of this. It proposed a significant menu of reforms to personal taxes, business taxes, work incentives, transfers and environmental taxes, whose effect on redistribution was largely offset by reforms to the rate structure. The presumption was that the existing degree of redistribution could be delivered in a more efficient manner, and the Review drew on optimal tax analysis for suggestions as to how that could be done<sup>1</sup>. Similarly, when the GST was first introduced in Canada, it was accompanied by a GST refundable tax credit designed to offset the additional tax imposed on low-income taxpayers. The Godbout Report's proposed changes in the sales/income tax mix are in this tradition.

The second problem is that the concept of equity is contentious. The Mirrlees Review adopted a utilitarian equity objective, following the standard optimal income tax approach advocated by Mirrlees (1971) and summarized in many reference texts, including Atkinson and Stiglitz (1980), Myles (1995), Kaplow (2008), Kocherlakota (2010) and Salanié (2011). Utilitarianism has been questioned on two main grounds. First, utilitarian social welfare is based on consequentialism: only utilities achieved after policy reforms are relevant; starting points are not. As Feldstein (2012) argues, this assumes that initial positions do not affect the evaluation of policies, which in optimal tax analysis involves redistributing from high-productivity to low-productivity persons. This is equivalent to assuming that inherited skills are commonly owned, and their fruits can be redistributed at will, a position consistent with Rawls (1971). Once weight is given to initial positions, the concept of equal sacrifice becomes operational, and this significantly constrains the desired amount of redistribution over and above the constraint imposed by efficiency loss<sup>2</sup>. Second, it can be objected that utilitarianism requires that utility be both measurable and comparable among individuals. This is particularly challenging when preferences differ.

---

1. One example is the work of Diamond (1980) and Saez (2002) showing that participation subsidies like the Working Income Tax Benefit can be welfare-improving. Another is the argument of Laroque (2005) and Kaplow (2006) that eliminating differential tax rates from the VAT system can be welfare-improving if accompanied by income tax adjustments.

2. Weinzierl (2014) has presented survey evidence to show that in the USA persons give weight to both initial positions and final outcomes. He shows how this restricts optimal redistribution significantly.

Responses to these challenges vary. The simplest is to retain the utilitarian methodology, but to temper its redistribution arguments by giving more weight to the pre-reform allocation or in the limit some notion of the *laissez-faire*<sup>3</sup>. Another approach is to eschew utilitarianism by taking a social choice approach where the government knows preference orderings but cannot measure utility. Fleurbaey and Maniquet (2011) take this route and base redistribution on the amount of resources different households need to satisfy two sorts of equity principles: the principle of compensation whereby persons ought to be compensated for differences in personal characteristics beyond their control (e.g., native ability), and the principle of responsibility whereby persons should neither be rewarded or punished for characteristics or actions that they are deemed to control (e.g, preferences for leisure, savings or risk-taking). The inability to measure utility lead Fleurbaey and Maniquet to base redistribution on leximin social orderings, but the orderings of well-being depend upon compensation and responsibility and is related to the equality of opportunity approach of Roemer (1988) (although he does use a utilitarian social welfare function). It is also related to the capabilities approach of Sen (1985), which emphasizes providing households with sufficient resources to be capable of participating fully in society given their personal characteristics and the circumstances in which they live.

These approaches based on resource availability are reminiscent of the ability-to-pay approach to taxation which informed the famous Carter Report (1966) and whose academic proponent was Musgrave (1959). Carter famously recommended comprehensive income as the ideal tax base, based on the idea that this was a measure of a person's command over resources rather than on any utilitarian evaluation. Later, the Meade Report (1978) proposed consumption rather than income as the personal tax base. This was inspired by Kaldor's (1955) dictum that persons should be taxed on what they took out of the social pot (consumption) rather than what they contributed (income). It is notable that utilitarianism was not the guiding principle. Ability-to-pay in Musgrave-Carter led to income as the base. Progressivity was based on the principle of equal sacrifice, an idea that goes back to Mill (1871). Unlike utilitarianism, equal sacrifice gives weight to the taxpayer's initial position and restricts progressivity. The Carter Report suggested a maximum tax rate of 50 percent.

The point of this discussion, and one that is endorsed by Diamond and Saez (2011), is that tax policy should take account of multiple objectives, particularly regarding equity. But whatever the extent of progressivity the above considerations lead to, virtually all observers accept the Pareto principle as a desirable property. That implies that equity objectives should be pursued as efficiently as possible. Optimal income tax principles lead to a number of well-founded arguments for

---

3. An extreme case of this would be the libertarian or minimal government approach of Nozick (1974). Alternatively, one could treat redistribution as a form of coercion, and give weight to minimizing coercion along the lines explored by Martinez-Vasquez and Winer (2014). Weinzierl (2014) proposes a social objective that is a weighted average of utilitarianism and deviations from a *laissez-faire*.

taxing capital income, particularly of high-income persons, as part of a system of efficient redistribution. These arguments have been outlined in Banks and Diamond (2010) and summarized in Diamond and Saez (2011). The main ones are as follows. First, the propensity to save is higher for more productive persons, or equivalently the utility intertemporal discount rate is lower. This implies that taxing capital income of high income earners indirectly taxes high-skilled persons and therefore complements progressive earnings taxation. Second, and related to that, capital income taxation is an indirect way of taxing wealth that has been inherited rather than saved out of earned income. This is particularly relevant where inheritance taxation is ineffective or non-existent. Third, to the extent that liquidity constraints are binding on lower-income persons, taxing capital income can be beneficial. The latter will tax unconstrained households, allowing for reduced tax rates on earnings and therefore relaxing the liquidity constraints. Fourth, if households face uncertain future earnings and cannot insure them, capital income taxation can provide implicit insurance. Capital income taxation will tend to reduce present savings of individuals and increase their future labour supply. In turn, that improves the capacity of the tax system to insure individuals against uncertainty in future earnings abilities. Finally, it may be practically impossible to distinguish labour and capital income, especially for high-income persons. In the absence of taxing capital income, labour income can masquerade as capital income to avoid taxation. Based on these considerations, recent studies using models calibrated to US data have found that the optimal tax rate on capital income can be as high as 35 percent (Conesa, Kitao, and Krueger, 2009). Focusing on the insurance motive alone, Kindermann and Krueger (2014) find optimal tax rates of 90 percent for the top 1% of earners.

The recent literature on evolving inequality, related to Piketty (2013), has uncovered a further persuasive argument for taxing capital income. The argument is that capital income, both of individuals and corporations, can include a significant component of rents, where rents refer to income in excess of the opportunity costs of generating that income. In the case of individuals, there are various sources of potential rents. One, suggested by Piketty, and empirically supported by Kacperczyk, Nosal and Stevens (2014), is that rates of return on capital rise with the wealth of the investor, and that part of this can be thought of as excess returns obtained by informational advantages and skill in investing. Another source of rents is the return to entrepreneurial skill which is manifest in high personal business returns. As Ray (2014) has argued, economic progress consists, in part, of a series of sector-specific innovations that are, in the first instance, exploited by individuals with financial resources and entrepreneurial skill. These individuals succeed in getting temporary rents that are eventually spread to other firms and workers. This process of creative destruction leads to sector-specific Kuznets curves (Kuznets, 1955) where temporary rents create growth-induced temporary inequality. Yet another source of rents is unexpected increases in housing values that accrue disproportionately to high-wealth individuals. More generally, inheritances, including housing, represent a further source of windfall gains. Finally, sizeable rents can accrue to the human capital of high-skilled persons. Much of the increase in



inequality in the USA and Canada in recent years is due to earnings rather than capital income. To the extent that this reflects unexpected changes in relative wages of high versus low-skilled workers, it represents rents, or producers' surplus, to those whose wages have risen. Generally speaking, rents accruing to individuals go disproportionately to those with high-incomes.

The corporate sector also generates rents. An important source is from market power which can be due to favorable regulation. Information and intellectual property can also generate rents, as can renewable and non-renewable natural resources and public procurement. Among industries, financial services, natural resources, pharmaceuticals and communications are likely rent generators. A sizeable share of corporate rents eventually accrue to shareholders, but some of them can be captured by management through bargaining and stock options.

The existence of rents at both the personal and corporate levels adds a powerful argument for taxing capital income and for rationalizing a progressive rate structure. To the extent that rents can be taxed, they represent a source of government revenue that can be obtained at low efficiency cost. Moreover, by their very nature, it can be argued on equity grounds that rents are good targets for taxation since they are windfall gains that accrue disproportionately to high-income persons. The main problem is that designing taxes that apply solely to rents is challenging. Rents cannot be distinguished from returns to risk, so any attempt to tax rents will necessarily tax risk. This is not necessarily a bad thing, however, since the government may be better able to pool risk than corporations. At the personal level, it may not be possible to distinguish rents from normal earnings. Despite these problems, the fact that rents accrue disproportionately to both capital income and earnings of high-income persons lends support to taxing capital income, including at the corporate level, and to progressive earnings taxation.

Given our arguments for taxing rents at their source using the corporate income tax (CIT), it is worth briefly outlining its economic effects. The Canadian economy is relatively small and open to international capital markets. To a first approximation, the after-tax competitive risk-adjusted rate of return can be taken as given. Moreover, the capital market can be treated as segmented in the sense that domestic savings and investment need not be equal. The level of each is determined by the rate of return on international markets: the after-tax return to savers and investors are both fixed, and the levels adjust accordingly<sup>4</sup>. The implication of this for tax policy is that taxes levied on firms will distort the investment side of the market without affecting savings, while those levied on resident savers by the personal income tax (PIT) will affect saving behaviour without affecting investment. Integration measures such as the dividend tax credit and partial exemption of

---

4. This is generally true for self-financed firms as well since the owners can always obtain the internationally determined rate of return elsewhere in the economy if they choose not to invest it in their own firm. To the extent that firm owners have better information about the profitability of the firm than outside investors, they can get a better rate of return on that account. Nonetheless, their outside option still influences the rate of return they must obtain to invest funds internally.

capital gains that apply to the PIT will undo the tax on savings without affecting investment, unlike in the case envisaged by the Carter Report<sup>5</sup>. Thus, these integration measures will be ineffective. Moreover, they will be unnecessary to the extent that personal capital income is sheltered from tax. This will be important in our subsequent discussion.

In addition, the CIT applied to firms' profits will cause investment to fall until the after-tax rate of return meets the internationally determined return. This implies that a CIT on the normal return to investment cannot be borne by investors, and must be shifted. If output prices are also determined internationally, the tax will be shifted to labour<sup>6</sup>. In the analysis that follows, we assume that the CIT levied on normal profits of the firm will be shifted to labour and will cause investment to fall. To the extent that the CIT applies to rents, we assume it will be borne by the owners of the firm, unless the tax can be avoided by shifting the rents abroad as in the case of intellectual property. As we discuss below, if the CIT is applied only to rents (and not to shareholder income), investment would not be distorted and the tax would be fully efficient. In technical terms, the marginal effective tax rate (METR) would be zero.

To the extent that the METR exceeds zero, firms will be discouraged from investing. We can think of this as a distortion applying to the intensive margin of firm behaviour. In an open economy, there are other margins of response to the CIT resulting from the ability of firms to shift profits abroad. This can be done in various ways. Firms may choose the location of their operations based on the average effective tax rate, that is, tax liabilities as a fraction of profits. The government will have an incentive to deter this by keeping its CIT rate low, which is a form of tax competition. Note that to the extent that the CIT falls on rents rather than normal returns to investment, profit-shifting by relocating production is deterred, except to the extent that the source of the rents is internationally mobile.

However, profits can be shifted without changing the location of real activity. Firms operating in more than one country can shift profits through financial transactions, borrowing in high tax jurisdictions to finance investments in affiliates in low-tax jurisdictions to take advantage of interest deductibility provisions. Governments may limit this through thin capitalization rules. Profits can also be shifted through transfer pricing when vertically integrated firms rely on intrafirm transactions to sell intermediate inputs among affiliates. In this case, the firm has an interest in setting the price for such transfers high when the supplying firm is in a low-tax jurisdiction. Such practices are addressed by imputing prices according to the arms-length principle, albeit imperfectly. Firms might also engage in intra-firm transfers of intellectual property rights to low-tax jurisdictions, and charge high royalties for

---

5. This is analyzed and discussed in more detail in Boadway and Bruce (1992) and Boadway and Tremblay (2014).

6. Various empirical studies in Germany, the UK and the USA have estimated that from one-half to three-quarters of the corporate tax is shifted to labour. See Fuest, Peichl and Siegloch (2013); Arulampalam, Devereux and Maffini (2012); and Liu and Altshuler (2013).

their use in high-tax jurisdictions. These mechanisms and others are influenced by differences in nominal tax rates across countries, and constitute the main argument against increasing corporate tax rates in Canada. The issue of profit-shifting has been taken up by the OECD (2013) in its Base Erosion and Profit Shifting (BEPS) proposals. These proposals have been further developed in OECD (2015).

## 2. CURRENT TAX TREATMENT OF CAPITAL INCOME

As the name implies, the income tax system is premised on the idea that income is the ideal base for personal taxation. This is a legacy of the Carter Report (1966) which promoted comprehensive income as the ideal tax base with capital income of all sorts included. To accomplish this objective, corporate taxation was needed to tax shareholder income at its source to preclude the postponement of personal taxation of income generated on retained earnings. Given that the corporate tax was essentially a withholding tax to preclude the sheltering of capital income within the corporation, corporate tax payments should be credited to shareholders through the integration of the corporate and personal taxes. The integration scheme devised by Carter was deemed to be unworkable, so integration took the cruder form of a dividend tax credit combined with preferential tax treatment of capital gains. The Carter Report focused on direct taxation and largely eschewed the role of commodity taxes as part of the tax mix.

The existing Canadian (and Québec) tax systems are a long way from the comprehensive income tax ideal of the Carter Report. Most asset income escapes taxation, so the system more closely resembles a personal consumption tax system akin to that proposed by the Meade Report (1978), the US Treasury Blueprints (1977) and more recently the Mirrlees Review (2011). Moreover, sales taxes have come to be a significant part of the tax base. Yet, the ideal of the Carter Report still influences thinking. Deviations from the comprehensive income base are treated as tax expenditures by the Department of Finance (2015), and the continuing existence of the dividend tax credit and preferential taxation of capital gains reflect the view of the corporate tax as a backstop or withholding device for the personal tax. The sheltering of asset income from personal taxation takes a myriad of forms. Capital income on financial assets can be sheltered within limits by Registered Retirement Savings Plans (RRSPs), Registered Pension Plans (RPPs), Tax Free Savings Accounts (TFSA) and Registered Educational Savings Plans (RESPs). Imputed income on owner-occupied housing is tax exempt, while human capital investment through forgone earnings is effectively treated on a cash-flow basis, analogous to RRSPs. That part of tax revenues that come from the Québec Sales Tax (QST) and the federal Goods and Services Tax (GST) are taxes on consumption so are largely equivalent to income taxes that exempt capital income. The same applies for payroll taxation, although payroll contributions used to finance the Canada or Québec Pension Plans are analogous to RPPs. Where capital income is taxed, special provisions often apply. We have mentioned the dividend tax credit on dividends received from Canadian corporations and the half-taxation

of capital gains. Those capital gains that are taxed enjoy the benefit of deferral since they are taxed only on realization, with the exception that realization is deemed to occur on death. Owners of small businesses may obtain a tax exemption on capital gains from selling shares of their business subject to a lifetime limit, and capital gains tax on some financial assets, including shares, mutual funds and bonds, can be avoided if the assets are donated to charity, while still being able to claim the charitable tax credit for the full market value of the asset. Finally, some labour income can be treated as capital gains via stock options to obtain preferential personal tax treatment (although not necessarily corporate tax treatment). In Québec, there are also tax credits provided for the purchase of specific financial assets, such as shares in labour-sponsored funds (i.e. *Fonds de solidarité des travailleurs du Québec* and *Fonds de développement de la Confédération des syndicats nationaux pour la coopération et l'emploi*) and development investment funds (*Capital régional et coopératif Desjardins*).

As a result of the above measures, capital income can potentially be fully sheltered by most individuals<sup>7</sup>. Unsheltered capital income takes three main forms. One is capital income on taxpayers who have exhausted their RRSP/RPP/TFSA limits, mainly those in the top decile of the income distribution. The second consists of those who have chosen not to shelter all their assets for whatever reason. For example, they may choose to hold some of their savings in assets that are not eligible for RRSP or TFSA treatment, such as stock options, commodity futures or land. The third are those who earn income from personal businesses. Like corporations, the tax base of these is roughly shareholder income, and they are taxed at personal rates if they remain unincorporated.

While most personal capital income can be sheltered from tax, much capital income is taxed at its source by the CIT as the income is generated<sup>8</sup>. The CIT roughly taxes income earned on behalf of the shareholder, which includes the normal return to investment, additional returns to compensate for risk, and any rents, which are returns over and above the risk-adjusted normal return. The fact that the CIT applies to normal returns accounts for the fact that it distorts investment decisions and leads to international tax competition. Other features of the CIT, such as the absence of full loss offsetting, imply that risk and innovation are discouraged, especially for small young firms. As well, the differential treatment of capital deductions across types of industries leads to interindustry distortions that have been documented in

---

7. As the Tax Free Savings Account (TFSA) system matures over time, a very high proportion of individuals will be able to hold all their financial assets in sheltered forms. According to Milligan (2012), with a total TFSA contribution limit of \$200,000 per family, only about 3 percent of families need eventually hold any taxable assets.

8. Corporations with foreign active business income are taxed on a territorial basis when their foreign income originates from countries that have a tax treaty with Canada. If foreign income originates from non-treaty countries, it is taxable in Canada with credit given for corporate taxes paid abroad. Passive investment income earned worldwide, by contrast, is always taxable in Canada even if earned in treaty-countries.

the literature on marginal effective tax rates<sup>9</sup>. Small Canadian Controlled Private Corporations (CCPCs) obtain a preferential tax rate on their active business income through the Small Business Deduction (SBD), subject to annual income and asset limits<sup>10</sup>. In Québec, the provincial SBD has been restricted to small corporations with at least four employees as a means of limiting the use of CCPCs by professionals and others to avoid personal taxation.

The resource industries receive some special treatment under the CIT, but are also subject to provincial resource taxes. Deductions for exploration and development expenses are relatively generous, and firms are allowed to deduct provincial resource taxes from the federal CIT base. Flow-through share financing is also available to mining firms so that deductions can be taken by shareholders that would otherwise have to be carried forward. This results in CIT marginal effective tax rates that are relatively low in the resource industries. Provincial resource taxes differ by province and type of resource. Roughly speaking, provincial mining taxes apply to profits, and approximate rent taxes that are achieved under cash-flow taxation<sup>11</sup>. Oil sands producers and offshore oil and gas are also taxed on profits, while conventional oil and gas firms are subject to royalties on the production that can vary with the price of the resource and the production of the well.

Additional considerations apply to the tax treatment of capital income in the Canadian federal context. The main tax bases are co-occupied by the federal and provincial governments, and the degree of federal-provincial tax harmonization differs by province and tax type. In the case of Québec, both the PIT and CIT are administered by the province. This is contrary to most other provinces who have chosen to participate in Tax Collection Agreements which oblige them to accept the federal PIT and CIT tax base and interprovincial allocation formula, in return for which they are able to choose the PIT rate structure and some tax credits as well as the CIT provincial rate and small business deduction. Québec has not signed the Tax Collection Agreements so is free to choose its own PIT and CIT structures. In practice, its tax bases are very similar to the federal one, and it abides by the same allocation formulas<sup>12</sup>. Some provinces harmonize their sales taxes with the

---

9. Effective marginal tax rates on capital vary considerably across industries in Canada. For example, Chen and Mintz (2015) estimated that these rates were 8 percent in manufacturing versus 23 percent in services in 2014. For Québec, they estimated marginal effective tax rates to be as low as -0.5 percent and 4.5 percent in forestry and manufacturing respectively, and as high as about 22 percent in construction, retail trade and wholesale trade.

10. The current federal small business rate is 11 percent and it applies on the income of CCPCs below \$500,000. Firms with more than \$15 million of capital employed in Canada do not qualify, and those with capital of between \$10 million and \$15 million receive a reduced deduction. The federal small business tax rate is currently scheduled to decrease gradually to 9 percent by 2019.

11. For a summary of provincial resource taxes, see Carr and Livernois (2012) and Boadway and Dachis (2015).

12. Personal income is allocated to the province in which the taxpayer is resident on December 31 of the taxation year. The income of corporations who operate in more than one province is allocated among provinces according to an average of the share of their gross revenues and the share of their salaries and wages in each province.

GST by adopting a Harmonized Sales Tax (HST). This allows them to choose their own provincial sales tax rates. Québec harmonizes its sales tax independently using the QST, whose base is similar to the GST.

The similarity of provincial and federal income and sales tax bases implies that capital income is taxed in a roughly common way across provinces. But, the fact that the two-levels of government co-occupy income and sales taxes gives rise to concerns about both horizontal (cross-province) and vertical (federal-provincial) interaction issues, especially in the case of capital income. There are two horizontal considerations. One is that to the extent that tax bases are mobile, tax competition can occur among provinces which leads to a general lowering of tax rates on mobile bases, and instances of strategic beggar-thy-neighbor provincial behaviour. Thus, tax competition can lead to less progressive provincial PIT rate structures to the extent that both high- and low-income tax bases are mobile. Milligan and Smart (2016) have attributed high elasticities of taxable income with respect to provincial income tax rates to the ability of high-income taxpayers to shift their income to low-tax provinces. Similarly, the mobility of investment across provinces induces them to maintain low CIT rates to preclude firms from choosing to invest elsewhere. The other horizontal concern is that provinces can have very different revenue-raising abilities in a decentralized federation. This leads to differences in the net fiscal benefits that different provinces are able to provide, and results in both fiscal inequities and fiscal inefficiencies (Flatters, Henderson and Mieszkowski, 1974; Boadway and Flatters, 1982; Boadway, 2004; Albouy, 2012; Boadway and Tremblay, 2012). The federal Equalization system and the system of social transfers (CHT/CST) are meant to address horizontal imbalances, but do so imperfectly.

Vertical issues arise from the fact that both levels of government are independently deciding on tax rates on a common base. Given the dominance of the federal government and its presumed first-mover advantage, it is possible that the share of tax room it occupies is inconsistent with its expenditure obligations and the transfers it makes to the provinces. This issue is discussed extensively in the Commission on Fiscal Imbalance (2002), the so-called Séguin Commission.

### 3. QUÉBEC TAXATION REVIEW COMMITTEE: SUMMARY OF RECOMMENDATIONS

The Godbout Report provided a comprehensive assessment of all the main components of the tax system with the objective of proposing reforms that would be neutral for government revenues, as well as neutral in terms of revenues collected from individuals and from corporations. The report included reform recommendations with respect to consumption taxes and user fees, personal and corporate income taxes and payroll taxes, many of which contrast with proposals discussed in the next section.

One of the central elements of the Report was to recommend a change in the tax mix by increasing reliance on consumption taxes and user fees as opposed to income taxes and payroll taxes. This was largely motivated by the objective of

promoting growth, and was based on the presumption that consumption taxes and user fees are less distortionary than income and payroll taxes. Specific components of this proposal include a higher general sales tax, higher excise taxes on tobacco and alcoholic beverages, higher contributions for the use of subsidized childcare services and higher electricity prices for both households and firms.

Another key recommendation was to reduce personal income taxes and increase progressivity through a number of measures including a relatively large increase in the basic personal exemption and the elimination of the health care contribution. In terms of personal tax rates, the committee proposed to increase the number of tax brackets from four to nine and to introduce more progressivity in the rate structure by lowering rates at the bottom of the income distribution. However, the top rate would remain unchanged and would start applying at a higher income level. The Report also recommended increasing the solidarity tax credit for low-income households, to reduce or eliminate several personal tax expenditures and to introduce a 'tax shield' that would effectively limit the reductions in various tax credits (e.g. work premium, credit for childcare expenses) that result from increased earnings for low-income individuals. This measure would reduce implicit marginal tax rates that apply to increases in earnings at low-income levels with the intention of improving incentives for labour-market participation and for increasing hours of work among low-skill workers. Finally, the Report proposed the introduction of a tax credit for experienced workers to encourage labour force participation for individuals above 60 years old, and recommended against harmonizing with the federal government with respect to income-splitting between spouses.

In terms of business taxation, the Report recommended a reduction of the corporate tax rate from 11.9 percent to 10 percent, and proposed the introduction of a growth premium for small firms to replace the current small business deduction. This would involve lowering the corporate tax rate to 4 percent on corporate income between \$100,000 and \$500,000 for small firms that qualify. In order to qualify, a firm would have to be a CCPC with at least five employees and no more than \$15 million in capital. This would represent a significant change relative to the current small business deduction which allows a reduced tax rate of 8 percent on all taxable income below \$500,000<sup>13</sup>. By providing a lower tax rate only on income above \$100,000, the stated objective of the proposal was to encourage firms to grow in order to reach that threshold. The Report recommends restricting this measure to firms with at least 5 employees which may reduce the incentives for professionals to incorporate. The Report also recommended a reduction of the payroll taxes for small firms and the reduction, or elimination, of some tax expenditures including abolishing the full refundability of tax credits for large firms.

---

13. The small business rate for firms in the manufacturing sector is 4 percent. Note also that the 2015-16 budget of the Québec government announced a reduction of the small business rate from 8 percent to 4 percent in the primary sector. The Budget also announced the intention of the government to gradually reduce the corporate tax rate from 11.9 percent to 11.5 percent between 2017 and 2020.

While the proposed reforms are wide-ranging, they would not change the basic structure of the tax system, although the Report does recommend studying the possibility of adopting a dual-income tax system in the longer-run. This would consist of taxing all capital income, at both the personal and corporate levels, at a low and uniform rate, and taxing individuals' earnings at progressive rates. This would represent a more fundamental change to the treatment of capital income, and may be more difficult to implement without some coordination with the federal and other provincial governments. Finally, the Report proposed to consider other reforms in the future that may also require some coordination with other Canadian governments. These include abolishing the half-taxation of capital gains, but adjusting realized capital gains for inflation, introducing a lifetime limit on the capital gains exemption for principal residences and replacing the lifetime cumulative exemption of capital gains from the sale of small businesses by additional RRSP contribution room.

#### 4. ALTERNATIVE PROPOSALS FOR TAX REFORM IN QUÉBEC AND CANADA

Our earlier discussion suggests some broad directions for tax reform to modernize the tax system. Some aspects of the existing tax system are rooted in principles that no longer apply. Comprehensive income as a benchmark tax base is outmoded, given the extent to which capital income is sheltered both within the income tax system and implicitly by sales and payroll taxes. By the same token, the CIT should no longer be designed to be a withholding tax for the PIT since shareholder income is largely sheltered from the PIT, and in any case the incidence of the CIT is likely shifted to labour as discussed above.

At the same time, moving to a full progressive consumption tax system by sheltering all capital income, as proposed by the Mirrlees Review (2011) as inspired by the Meade Report (1978), is unwarranted. There are solid reasons for taxing capital income by high-income earners, based both on optimal income tax analysis and on the presumption that a significant amount of rents are included in capital income, especially at high income levels. These same considerations would argue against a Nordic dual income tax, which the Godbout Report favours exploring, whereby all personal capital income is taxed at a single low rate. Such a system would entail undoing the ability of low- and middle-income taxpayers to shelter their incomes for retirement, and would preclude capital income from being taxed progressively. The likelihood of rents also supports suitably progressive rate structures on earnings, more so than optimal income tax analysis and its critics would suggest.

Our specific proposals for tax reform follow from these considerations. The key elements of a reform package would encompass the personal taxation of capital income, corporate taxation based on rents, and a progressive tax structure. We discuss each in turn.



#### 4.1 *Personal Taxation of Capital Income*

The two main considerations mentioned above inform our preferred taxation of capital income, and they lead in similar directions. One is that there is a case for taxing capital income of high-income taxpayers as part of an efficient system of redistribution. The second is that returns to assets can include unexpected gains, or rents, and these too occur disproportionately, though not exclusively, to high-income persons. The first consideration supports limits to the amount of assets that can be sheltered, while the second invites special consideration for assets that are more likely to lead to unexpected gains.

To develop some background to our proposals it is useful to distinguish two classes of sheltering devices. The first we call *ex post* sheltering devices because they exempt capital income after it is earned. These correspond with what the US Treasury Blueprints (1977) called tax-prepaid assets and the Mirrlees Review (2011) called TEE asset treatment. Savings are made from after-tax income (the T in TEE), accumulate tax-free (the first E), and remain tax exempt when the asset is sold (the second E). In Canada, TFSAs and housing (and other consumer durables) are *ex post* sheltering devices, as are payroll taxes. The key feature of *ex post* or TEE sheltering devices is that not only do normal returns go untaxed, but so do both returns to risk and rents. In recognition of this, the Mirrlees Review proposed restricting TEE treatment to interest-bearing assets.

The second class includes *ex ante* sheltering devices, referred to as EET by the Mirrlees Review. Savings are tax-deductible (the first E) and accumulate tax-free (the second E), while both principal and accumulated returns are taxed when the asset is sold. RRSPs and RPPs are *ex ante* sheltering devices. EET differs from TEE by taxing accumulated returns that are either unexpected (rents) or compensate for risk. Note that human capital investment is approximately an *ex ante* sheltering device to the extent that forgone earnings, which are a main cost of acquiring human capital, are implicitly tax-exempt while all increases in earnings are taxed later in life. By the same token, general sales taxes like the QST/GST/HST are equivalent to EET systems. They tax consumption funded by unexpected gains in income. Note that if personal tax rates differ over the life cycle, TEE will be more valuable if applied to savings when tax rates are relatively low, and vice versa for EET.

With that background, our qualitative proposals for personal tax reform are as follows. First, strict limits should be maintained on tax sheltering such that some capital income remains taxable for upper-income earners. In principle, one could make sheltering contingent on income, for example, by reducing RRSP and TFSA contribution room with income. To the extent that saving exceeds contribution limits, this would be a way of obtaining tax revenue from high-income earners in a non-distorting way. This might be preferable to increasing marginal tax rates for high-income earners whose elasticity of earnings with respect to the marginal tax rate is high. Second, sheltering should be relatively more generous for EET schemes, like RRSPs and RPPs, compared with TEE assets. In particular, TFSAs should be strictly limited and should not be increased as had been proposed by the previous federal government.

This is based on the idea that TEE treatment enables the taxpayer to escape taxation on unexpected returns. This is explored in the Canadian context by Alarie (2009). The Mirrlees Review had proposed dealing with this issue by creating a hybrid form of tax sheltering called TtE whereby instead of all capital income being exempt, only normal returns would be exempt. In particular, shares would be given a normal rate-of return exemption on annual earnings, but all earnings above that would be taxed (the  $t$  in TtE). This scheme would be administratively complex, and in fact unnecessary given that a similar outcome can be achieved by EET.

Housing raises special concerns since although it is effectively a TEE asset, it faces no limits like TFSA's. Taxpayers can shelter unlimited amount of wealth in housing equity (and other consumer durables). Given the possibility for windfall capital gains from home ownership, this is anomalous. Some options exist for addressing this. Housing equity acquisition could be included in TFSA contributions, although this would come with transitional problems given the high degree of home ownership that already exists. Alternatively, capital gains on housing could be taxable above some exemption level, possibly defined on a lifetime basis. More ambitiously, as discussed further below, housing transfers could be included in an inheritance tax base.

Capital income from unsheltered assets should be fully taxed under the same progressive rate structure as the tax on earnings. More controversially, the dividend tax credit and the partial exemption for capital gains could be eliminated. This is related to the proposal discussed below for changing the CIT from a tax on shareholder income to a cash-flow-equivalent corporate tax that would apply to rents and returns to risk. The CIT would no longer serve as a withholding device, so the case for integration is diminished. In principle, one could argue, following the Mirrlees Review, for retaining integration of the CIT and PIT to avoid the double taxation of rents. However, given a) that the cash-flow-equivalent tax applies to both rents and the return to risk, b) that the incidence of the component applying to risk is largely shifted to labour, c) that rents accrue very unevenly across corporations, and d) that not all rents are taxed at the personal level, it would be practically very difficult to design an integration scheme accurately. Little is lost by eliminating the dividend tax credit and preferential treatment of capital gains, and some simplicity is gained. A source of tax planning opportunity is lost once capital gains are taxed at the same rate as earnings (cf. Kleven, 2014). It might be argued that part of the rationale for preferential tax treatment of capital gains is to compensate for the fact that capital gains due to inflation would otherwise be taxed. However, this argument is not compelling on two main grounds. One is that the capital gains tax can be mitigated by deferring the realization of capital gains. The other is that many other assets, such as bonds, are not indexed for inflation and so are liable for taxation of inflationary gains.

Part of the argument for taxing capital income of high-income persons relies on standard optimal income tax analysis, and part follows from the argument that capital income can include rents that accrue disproportionately to high income

persons. Another important source of windfall gains is inherited wealth, which according to Piketty (2013) is increasing as a proportion of total wealth. The argument for taxing inheritances is an uneasy one. On efficiency grounds, it has been argued that bequests confer a positive externality so should be subsidized (Kaplow, 2001). The idea is that voluntary bequests give a benefit to donors by revealed preference and also give an external benefit to recipients. The double-counting of the benefits of voluntary donations has been contested by Hammond (1987) and Mirrlees (2007), among others. If the benefits to donors are discounted, equity arguments are more compelling. Not only are inheritances a source of windfall gain to recipients, they also conflict with equality of opportunity. On these grounds, the Mirrlees Review argued in favour of a progressive tax on lifetime inheritances, albeit at a different rate structure than income taxation. (Piketty, 2013 famously argued for a progressive worldwide tax on wealth as a way of combatting what he argued was a natural tendency for the capitalist system to generate growing wealth inequality.) A strong case can be made for a tax on large inheritances in Canada on these grounds. Such a tax could have a fairly large exemption level, but would include housing in the base. This would be a way of severing the transmission of large estates across generations without conflicting unduly with the incentive to leave reasonable bequests to one's heirs, on the presumption that large estates include proportionately large windfall gains. Instituting an inheritance tax would be a major reform, but one that would not be unprecedented in Canada given that one was in place until it was turned over to the provinces and gradually disappeared. It might be viewed as an inspirational reform.

We have emphasized the existence of windfall gains as an argument both for taxing capital income of high-income earners and for sheltering via *ex ante* devices like RRSPs and RPPs instead of *ex post* devices like TFSAs. We have also argued on the same grounds for getting at windfall gains in housing, which are like *ex post* sheltering devices. It should be recognized that in practice it is not possible to separate windfall gains from returns to risk: any tax that applies to windfall gains will also apply to returns to risk. The unavoidable taxation of returns to risk need not be a compelling deterrent to taxing windfall gains. As long as losses and gains are treated symmetrically, the taxation of risky gains can increase risk-taking, and can also increase the expected utility of taxpayers if the government is better able to pool risk than taxpayers (Atkinson and Stiglitz, 1980). Loss-offsetting is important and is well achieved with RRSPs and RPPs.

#### *4.2 Corporate Taxation Based on Rents*

Not all rents generated in Canada are taxed at the personal level. Those accruing on assets held as TFSAs or housing escape tax as do those earned by foreign shareholders. Even those that are eventually taxed when RRSPs or RPPs are cashed in or when accrued capital gains are realized may have been generated long before they are taxed. There is a strong case for taxing rents at source as they accrue. The existing CIT does that, but it does so in a very inefficient way. The base of the CIT

is roughly shareholder income, which includes both rents and the risk-adjusted return on shareholder equity. This is a consequence of the tax being conceived of as a withholding device for the PIT. As we have pointed out, this makes little sense: most personal capital income is sheltered from the PIT so does not call for withholding at source, and the CIT on normal risk-adjusted corporate income is likely borne by labour rather than shareholders. Because both the normal return to investment and rents are taxed by the CIT, the tax distorts investment, location, innovation and growth of firms. A tax that applied to rents would not do that.

The literature on business taxation has argued that a tax on cash flow with full loss offset (or carry forward of losses with interest) does not distort investment decisions if firms are risk-neutral and outstanding tax losses are refunded if the firm winds up (Brown, 1948). Moreover, business taxes whose bases have the same present value as a cash-flow tax – cash-flow-equivalent (CFE) taxes – are also neutral as long as they respect full loss-offsetting (Boadway and Bruce, 1984). Examples of CFE taxes include the resource rent tax (RRT) (Garnaut and Clunies-Ross, 1975 and the Henry Review, 2010), the capital account allowance (CAA) tax (Boadway and Bruce, 1984 and Bond and Devereux, 1995), and the allowance for corporate equity (ACE) tax (Institute for Fiscal Studies, 1991 and Bond and Devereux, 2003). Under a CAA system, a firm's investment each year is included in a capital account which is carried forward at the risk-free interest rate. Depreciation deductions are provided by applying a rate of depreciation for tax purposes to the remaining value of the capital account. Similarly, deductions for the cost of finance are given each year by applying the risk-free interest rate to the book value of the capital account. Such a tax is neutral with respect to the firm's investment decisions independently of the rate used for depreciation deductions. Under an ACE system, a deduction for the cost of equity finance is provided at the risk-free interest rate, in addition to a deduction for debt-financing equal to actual interest payments on debts and a deduction for depreciation. In contrast to the CAA, the ACE will only be fully neutral if the interest rate on debts equals the risk-free interest rate and if the rate of depreciation used for tax purposes reflects real depreciation. Finally, under an RRT, negative cash-flows are carried forward at the risk-free interest rate until their cumulative value becomes positive, and positive cash flows are fully taxable without any deductions for depreciation or for the cost of finance.

If firms are risk-averse, CFE business taxes are no longer neutral. They effectively tax not only rents but also returns to risk-taking as in the case of *ex ante* sheltering under the PIT. The taxation of risk need not reduce risk-taking by firms. As long as full loss-offsetting prevails, firms could actually be encouraged to take more risk (Boadway, Sato and Tremblay, 2016). The reason is that the tax implies that the government is sharing the risk, so reducing the after-tax risk of an investment as in Domar and Musgrave (1944). Whether this is a good or bad thing depends on how efficiently the firm can pool the risks on its investment: to the extent that their risk-pooling is restricted, implicit risk-pooling provided by the government through taxation can be beneficial. This is contingent on the tax system offering full loss-offsetting or its equivalent. To the extent that governments refuse

to refund losses, risk-taking will be discouraged by firms that have some chance of winding up with losses on their books, and these will be mainly small innovative firms engaged in risky investments.

These considerations lead to some policy prescriptions for business tax reform<sup>14</sup>. This begins with adopting as a principle that the CIT should be viewed as an instrument for taxing the rents earned by corporations doing business in Canada rather than as a withholding tax for the PIT. Some form of CFE tax would be appropriate, with loss-offsetting as complete as possible through some combination of carry-forward of losses with interest and refundability of losses. A CFE tax would unavoidably tax returns to risk as well as rents, but they would avoid taxing normal returns to investment, and as such would be far less distorting than the existing system.

Ideally, a CAA tax would be appropriate with a risk-free rate of return used as a deduction for the cost of finance applied to the book value of the capital account as described above. However, the transition from the existing system to a CFE-type tax could be less disruptive by moving to an ACE tax. This could be accomplished by instituting a cost of finance deduction based on the book value of the firm's capital that has not been financed by debt using a risk-free interest rate. The only difference from a CFE tax is that the deduction for debt finance would be at the rate of interest incurred by the firm, and that would exceed the risk-free rate of interest to the extent that bankruptcy risk existed.

The CFE tax would apply on a territorial basis, and would apply to real cash flows of firms operating in Canada. To the extent that rents are generated by financial institutions, a CFE tax could also apply to their financial cash flows, following the Meade Report (1978). Currently foreign passive income is taxed on a residence or worldwide basis. The Advisory Panel on Canada's System of International Taxation (2008) recommended that the residence basis be kept for foreign passive income, and we see no reason to contradict that. Ideally, the CFE tax should be adopted by both the federal government and the provinces, and harmonization through the Tax Collection Agreements could continue to apply. Both levels of government could choose their own tax rates.

The case for preferential treatment of small businesses still applies. The main argument for the small business deduction is that governments are reluctant to refund outstanding losses to firms that windup. Given the significant rate of turnover of small businesses, this discourages risk-taking, innovation and investments in small businesses. At the same time, to avoid any perceived incentive that might exist for small firms to remain small to be eligible for the small business deduction (Chen and Mintz, 2011), a cumulative limit on income eligible for the deduction could be reinstated. The CFE or ACE tax should also apply to personal unincorporated businesses and partnerships so that the rents earned are subject to personal income tax rates. The incentive for taxpayers such as professionals

---

14. The prescriptions to follow are similar to those advocated in Boadway and Tremblay (2014, 2016).

to incorporate to take advantage of the small business deduction has been partly addressed by the Québec government in 2015 following a recommendation of the Godbout report. The small business deduction is now restricted to firms with at least four full-time employees.

The main advantage of a CFE tax is that it largely avoids the disincentive to invest that exists in the current CIT, at least to the extent that full loss-offsetting or its equivalent applies. It also eliminates the incentive for debt financing, which arguably contributes to periodic financial crises. A CFE tax enables the federal and provincial governments to raise revenues in a relatively efficient manner. It also mitigates tax competition to the extent that rents are location-specific since firms will not be deterred from locating in Canada to exploit the production of rents. Standard tax competition effects are also avoided since normal returns to capital are not taxed. However, it does not avoid all the problems with the existing tax, particularly those associated with shifting profits to low tax countries. It does not prevent profit-shifting through transfer pricing, although it does remove the incentive to shift profits through financial transactions – borrowing in high tax countries to take advantage of interest deductibility – since financial deductions are tied to real investments. Nor does it avoid profit-shifting through the transfer of intellectual property to low tax countries to which royalties can be transferred.

The latter points to a further problem of rent taxation. The production of rents may not be specific to a location but may be transferred from one country to another. This is the case with patents, for example. To the extent that intellectual property can be shifted among countries, firms may choose not only to shift profits by changing the location of patents and trademarks, but also choose to exploit intellectual property by shifting production to a low-tax country. To mitigate the consequences of mobile property rights, one could offer preferential tax treatment of profits generated domestically from intellectual property rights (Pantaleo, Poschmann and Wilkie, 2013). Preferential treatment could also be restricted to patents developed in Canada as a way to stimulate domestic R&D.

Moving the existing CIT to a CFE or ACE tax entails reducing the size of the tax base, and therefore surrendering some tax revenues. It has been estimated by de Mooij (2011) that the initial revenue loss from moving to an ACE in Canada would be about 19 percent. As discussed in Boadway and Tremblay (2014), this could be more than made up by a combination of the elimination of the dividend tax credit and the preferential taxation of capital gains. These measures are warranted in their own right as mentioned above. In any case, revenue-neutrality is not a necessary condition for a suitable reform of the structure of the tax system. Tax rates can always be chosen independently of tax bases.

#### *4.3 Progressivity of the Tax System*

There are several measures that would be appropriate. One would be to increase the progressivity of the rate structure both at the top and the bottom. At high-income levels, a new tax bracket could be created for, say, the top decile of

taxpayers. There might be concerns that a high elasticity of taxable income at the top would dampen the revenues raised as a result. But, this effect would be offset by measures we are proposing to make the tax base more comprehensive at the top and therefore less amenable to tax planning, including eliminating the preferential tax treatment of capital gains and the dividend tax credit, and restricting the ability of high-income taxpayers to shelter their asset income in corporations. This would correspond with proposals to increase the top rate of tax by Diamond and Saez (2011) and Milligan (2014).

Big anomalies also exist at the lower end of the income distribution. Increasing income tax progressivity at the bottom could be achieved by reforming the treatment of tax credits. Currently, non-refundable tax credits offer the same value to all taxpayers with sufficient taxable income, but no value to those without. An exception is that some unused credits can be transferred between spouses, which does not provide any benefit to single-mothers, for example. These inequities could be remedied by both making all tax credits refundable and by clawing them back with income, as is the case with already refundable tax credits such as the GST credit, child tax credits and the working income tax benefit. Indeed, tax credits could be made arbitrarily progressive by increasing their base amount and the rate at which they are clawed back (cf. Boadway, 2011 and Simpson and Stevens, 2015). The potential revenue costs of these measures could be compensated by eliminating a number of small tax credits and deductions which are either no longer justified or achieve little purpose. This was also recommended by the Godbout Report in which over 30 such credits were identified including, for example, tax credits for youth activities, tax credits for political donations, deductions for foreign farm workers, deductions for gifts of securities, deductions using flow-through shares, and the exemption of tax on capital gains for particular resource properties.

Two final sources of growing inequality would involve more substantial reforms. One is the tax treatment of housing, which is a source of windfall capital gains. Imputed income on owner-occupied housing is fully sheltered from income without limit, analogous to an unlimited TFSA. This is beneficial to all homeowners, but disproportionately so to wealthier ones. Addressing this issue in a manner that is broadly consistent to TFSAs could involve establishing an upper limit on cumulative capital gains on owner-occupied housing that can be tax-free. Such a limit might also mitigate speculative investment in housing and the macroeconomic risk that this entails. The transition to such a reform would have to be carefully managed.

The other challenge concerns the treatment of inheritances, which are an important source of transmission of inequality across generations. Canada is one of a relatively small number of OECD countries with no tax on bequests or inheritances, although in many countries such taxes yield relatively little revenue. Both the Meade Report (1978) and the Mirrlees Review (2011) recommended a progressive tax on lifetime inheritances on the argument that these violate equality of opportunity by representing windfall incomes to recipients, many of whom have benefited from growing up in well-off families. There are counterarguments to inheritance

taxation, largely revolving around the interference that it has on the savings by bequestors. At the same time, large estates presumably reflect windfall gains to some extent, and as Piketty (2013) argues, high degrees of wealth inequality have undesirable social consequences. A case can be made for an inheritance tax in Canada at least on large inheritances. This would be more effective as a federal initiative than a provincial one. After all, a consequence of decentralizing the Canadian tax on estates to the provinces in the early post-war period was that the provinces gradually abolished it.

## CONCLUSION

Ideally, our proposed reforms would be adopted by both orders of government. However, most reforms outlined in the previous section could also be implemented by the Québec government alone. Tax Collection Agreements between the federal government and the provinces do not apply in Québec so the Québec government has complete autonomy to reform any component of its tax structure including the PIT, CIT and the QST, even though doing so without cooperation with the federal government and the other provinces would raise a number of difficulties. Given that the federal government occupies a large share of the PIT and the CIT, the scope of the reforms would be limited if they applied only to provincial taxation. More importantly, adopting some of our proposed reforms unilaterally would create harmonization issues, both vertical and horizontal ones, and would increase compliance costs.

Nonetheless, in some cases, reforms could be introduced at the provincial level only without too much difficulty. That is the case for most of our recommendations regarding progressivity including the introduction of a new tax bracket for high-income taxpayers, the refundability of all tax credits to low-income individuals, and the adoption of a lifetime limit on the tax exemption of capital gains on principal residences. There are certainly benefits to greater harmonization with the federal government and other provinces, but in these cases, our view is that the costs of disharmonization should not prevent reforms at the provincial level. A provincial tax on large inheritances could also be introduced but it may raise little revenues if adopted in Québec only.

Moving to a CFE or ACE corporate tax system could also be done unilaterally by the Québec government. It would increase compliance costs since firms would have to abide by different federal and Québec tax bases, but these costs might be outweighed by the gains associated with a more efficient tax structure. Moreover, policy initiatives implemented by one province can serve as a template for other provinces or the federal government, so-called laboratory federalism. As discussed earlier, the adoption of a CFE or ACE system would ideally be accompanied by the elimination of the dividend tax credit and of the preferential treatment of capital gains. However, doing so at the provincial level only would be more difficult as it might induce tax base flight towards other provinces. Preferential treatment to income generated from intellectual property could be introduced by



the Québec government, although it may trigger additional fiscal competition with other provinces. A coordinated approach among the federal and all provincial governments in this area would be preferable. In contrast, introducing a cumulative limit on income eligible for the small business deduction could readily be done by Québec only. Finally, the rules governing RRSPs and TFSAs as well as contribution limits should be the same at the federal and provincial levels. Our recommendations about those are contingent on being implemented by both orders of government.

#### REFERENCES

- ADVISORY PANEL ON CANADA'S SYSTEM OF INTERNATIONAL TAXATION (2008). *Enhancing Canada's International Tax Advantage*. Ottawa: Department of Finance.
- ALARIE, B. (2009). "Policy Forum: Assessing Tax-Free Savings Accounts – Promises and Pressures." *Canadian Tax Journal*, 57: 504-532.
- ALBOUY, D. (2012). "Evaluating the Efficiency and Equity of Federal Fiscal Equalization." *Journal of Public Economics*, 96: 824-839.
- ARULAMPALAM, W, M. DEVEREUX, and G. MAFFINI (2012). "The Direct Incidence of Corporation Tax on Wages." *European Economic Review*, 56(6): 1038-1054.
- ATKINSON, A. B., and T. PIKETTY (eds.) (2007). *Top Incomes over the Twentieth Century*. Oxford: Oxford University Press.
- ATKINSON, A. B., and J. E. STIGLITZ (1980). *Lectures on Public Economics*. New York: McGraw-Hill.
- ATKINSON, A. B., T. PIKETTY, and E. SAEZ (2011). "Top Incomes in the Long Run of History." *Journal of Economic Literature*, 49: 3-71.
- AUSTRALIAN TREASURY (2010). *Australia's Future Tax System (The Henry Review)*. Canberra: Commonwealth of Australia.
- BANKS, J., and P. DIAMOND (2010). "The Base for Direct Taxation." In MIRRLEES, J. A., T. BESLEY, R. BLUNDELL, S. BOND, R. CHOTE, M. GAMMIE, P. JOHNSON, G. MYLES, and J. POTERBA (eds). *Dimensions of Tax Design: The Mirrlees Review*. Oxford: Oxford University Press, pp. 548-648.
- BOADWAY, R. (2004). "The Theory and Practice of Equalization." *CESifo Economic Studies*, 50: 211-254.
- BOADWAY, R. (2011). "Rethinking Tax-Transfer Policy for 21st Century Canada." In GORBET, F., and A. SHARPE (eds) *New Directions for Intelligent Government in Canada: Papers in Honour of Ian Stewart*. Ottawa: Centre for the Study of Living Standards.
- BOADWAY, R. (2015). "Tax Policy for a Rent-Rich Economy." *Canadian Public Policy*, 41: 253-264.
- BOADWAY, R. and N. BRUCE (1984). "A General Proposition on the Design of a Neutral Business Tax." *Journal of Public Economics*, 24: 231-239.

- BOADWAY, R. and N. BRUCE (1992). "Problems with Integrating Corporate and Personal Taxes in an Open Economy." *Journal of Public Economics*, 48: 39-66.
- BOADWAY, R., and B. DACHIS (2015). "Drilling Down on Royalties: How Canadian Provinces Can Improve Non-Renewable Resource Taxes." C.D. Howe Institute, Commentary 435. Toronto.
- BOADWAY, R., and F. FLATTERS (1982). "Efficiency and Equalization Payments in a Federal System of Government: A Synthesis and Extension of Recent Results." *Canadian Journal of Economics*, 15: 613-633.
- BOADWAY, R., M. SATO, and J.-F. TREMBLAY (2016). "Cash-Flow Business Taxation Revisited: Bankruptcy, Risk Aversion and Asymmetric Information." Queen's University Working Paper 1372. Kingston ON.
- BOADWAY, R., and J.-F. TREMBLAY (2012). "Reassessment of the Tiebout Model." *Journal of Public Economics*, 96: 1063-1078.
- BOADWAY, R., and J.-F. TREMBLAY (2014). "Corporate Tax Reform: Issues and Prospects for Canada." Mowat Research No. 88. Toronto: Mowat Centre.
- BOADWAY, R., and J.-F. TREMBLAY (2016). "Modernizing Business Taxation." Commentary 452. Toronto: C.D. Howe Institute.
- BOND, S. R., and M. P. DEVEREUX (1995). "On the Design of a Neutral Business Tax under Uncertainty." *Journal of Public Economics*, 58: 57-71.
- BOND, S. R., and M. P. DEVEREUX (2003). "Generalised R-based and S-based Taxes under Uncertainty." *Journal of Public Economics*, 87: 1291-1311.
- BROWN, E. C. (1948). "Business-income Taxation and Investment Incentives." *In Income, Employment and Public Policy: Essay in Honor of Alvin H. Hansen*. New York: Norton, pp. 300-316.
- CARR, B. R., and J. R. LIVERNOIS (2012), "Resource Taxation." *In KERR, H., K. MCKENZIE, and J. MINTZ (eds). Tax Policy in Canada*, Toronto: Canadian Tax Foundation. pp. 11:1-11:30
- CHEN, D. and J. MINTZ (2011), "Small Business Taxation: Revamping Incentives to Encourage Growth." University of Calgary School of Public Policy Research Papers 4(7).
- CHEN, D., and J. MINTZ (2015). "The 2014 Global Tax Competitiveness Report: A Proposed Business Tax Reform Agenda." University of Calgary School of Public Policy Research Papers 8(4).
- CHETTY, R., N. HENDREN, P. KLINE, E. SAEZ, and N. TURNER (2014). "Is the United States Still a Land of Opportunity? Recent Trends in Intergenerational Mobility." *American Economic Review Papers and Proceedings*, 104: 141-47.
- COMMISSION ON FISCAL IMBALANCE (2002). *A New Division of Canada's Financial Resources*. Government of Québec, Québec.
- CONESA, J. C., S. KITAO, and D. KRUEGER (2009). "Taxing Capital? Not a Bad Idea after All!" *American Economic Review*, 99(1): 25-48.

- CORAK, M. (2013). "Income Inequality, Equality of Opportunity, and Intergenerational Mobility." *Journal of Economic Perspectives*, 27: 79-102.
- DEPARTMENT OF FINANCE (2015). *Tax Expenditures and Evaluations 2014*. Ottawa.
- DIAMOND, P. (1980). "Income Taxation with Fixed Hours of Work." *Journal of Public Economics*, 13: 101-110.
- DIAMOND, P. and E. SAEZ 2011. "The Case for a Progressive Tax: From Basic Research to Policy Recommendations." *Journal of Economic Perspectives*, 25: 165-90.
- DOMAR, E. D. and R. MUSGRAVE (1944). "Proportional Income Taxation and Risk-Taking." *Quarterly Journal of Economics*, 58: 388-422.
- FELDSTEIN, M. (2012). "The Mirrlees Review." *Journal of Economic Literature*, 50(3): 781-790.
- FLATTERS, F., V. HENDERSON, and P. MIESZKOWSKI (1974). "Public Goods, Efficiency, and Regional Fiscal Equalization." *Journal of Public Economics*, 3: 99-112.
- FLEURBAEY, M., and F. MANIQUET (2011). *A Theory of Fairness and Social Welfare*. Cambridge, UK: Cambridge University Press.
- FORTIN, N., D. GREEN, T. LEMIEUX, K. MILLIGAN, and C. RIDDELL (2012). "Canadian Inequality: Recent Developments and Policy Options." *Canadian Public Policy*, 38: 121-45.
- FUEST, C., A. PEICHL, and S. SIEGLOCH (2013). "Do Higher Corporate Taxes Reduce Wages? Micro Evidence from Germany." Discussion Paper no. 7390, Bonn: IZA.
- GARNAUT, R., and A. CLUNIES-ROSS (1975). "Uncertainty, Risk Aversion and the Taxing of Natural Resource Projects." *Economic Journal*, 85: 272-287.
- HAMMOND, P. J. (1987). "Altruism." In EATWELL, J., M. MILGATE, and P. NEWMAN (eds), *The New Palgrave: A Dictionary of Economics, First Edition*. Basingstoke: Palgrave Macmillan, pp. 85-87
- HOWITT, P. (2015). "Mushrooms and Yeast: The Implications of Technological Progress for Canada's Economic Growth". Commentary 433. Toronto: C.D. Howe Institute.
- INSTITUTE FOR FISCAL STUDIES (1991). "Equity for Companies: A Corporation Tax for the 1990s." Commentary 26. London: IFS.
- KALDOR, N. (1955). *An Expenditure Tax*. London: Allen and Unwin.
- KAPLOW, L. (2001). "A Framework for Assessing Estate and Gift Taxation." In GALE, W.G., J.R. HINES and J. SLEMROD (eds), *Rethinking Estate and Gift Taxation*, Washington: Brookings Institution. pp. 164-204.
- KAPLOW, L. (2006). "On the Undesirability of Commodity Taxation Even When Income Taxation Is Not Optimal." *Journal of Public Economics*, 90: 1235-1250.
- KAPLOW, L. (2008). *The Theory of Taxation and Public Economics*. Princeton NJ: Princeton University Press.

- KACPERCZYK, M. T., J. B. NOSAL, and L. STEVENS (2014). "Investor Sophistication and Capital Income Inequality." NBER Working Paper no. w20246, Cambridge MA.
- KINDERMANN, F., AND D. KRUEGER (2014). "High Marginal Tax Rates on the Top 1 %? Lessons from a Life Cycle Model with Idiosyncratic Income Risk." NBER Working Paper no. 20601. Cambridge MA.
- KLEVEN, H. J. (2014). "How Can Scandinavians Tax so Much?" *Journal of Economic Perspectives*, 28: 77-98.
- KOCHERLAKOTA, N. R. (2010). *The New Dynamic Public Finance*. Princeton NJ: Princeton University Press.
- KUZNETS, S. (1955). "Economic Growth and Income Inequality." *American Economic Review*, 45: 2-28.
- LAROQUE, G. (2005). "Indirect Taxation is Superfluous under Separability and Taste Homogeneity: A Simple Proof." *Economics Letters*, 87: 141-144.
- LIU, L., and R. ALTSHULER (2013). "Measuring the Burden of the Corporate Income Tax Under Imperfect Competition." *National Tax Journal*, 66: 215-238.
- MARTINEZ-VAZQUEZ, J., and S. L. WINER (eds.) (2014). *Coercion and Social Welfare in Public Finance*. New York: Cambridge University Press.
- MEADE, J. E. (1978). *The Structure and Reform of Direct Taxation*. Report of a Committee chaired by Professor James Meade. London: George Allen and Unwin.
- MILL, J. S. (1871). *Principles of Political Economy*. Oxford: Oxford University Press (republished in 1994).
- MILLIGAN, K. (2012). "The Tax-Free Savings Account: Introduction and Simulations of Potential Revenue Costs." *Canadian Tax Journal*, 60(2): 355-360.
- MILLIGAN, K. (2014). *Tax Policy for a New Era: Promoting Economic Growth and Fairness*. C.D. Howe Institute Benefactors Lecture. Toronto: C.D. Howe Institute.
- MILLIGAN, K., and M. SMART (2016). "Provincial Taxation of High Incomes." In D.A. GREEN, W.C. RIDDELL and F. ST-HILAIRE (eds), *Income Inequality: The Canadian Story*, Montreal: The Institute for Research on Public Policy, pp. 480-507.
- MIRRLEES, J. (1971). "An Exploration in the Theory of Optimum Income Taxation." *The Review of Economic Studies*, 38: 175-208.
- MIRRLEES, J. (2007). "Taxation of Gifts and Bequests." Slides for a Talk at the Centenary of James Meade. Conference, mimeo.
- MIRRLEES, J., S. ADAM, T. BESLEY, R. BLUNDELL, S. BOND, R. CHOTE, M. GAMMIE, P. JOHNSON, G. MYLES, and J. POTERBA (2011). *Tax by Design* (the Mirrlees Review). Oxford: Oxford University Press.
- DE MOOIJ, R. (2011). "Tax Biases to Debt Finance: Assessing the Problem, Finding Solutions." Staff Discussion Note, SDN/11/11, IMF, Washington, DC.
- MUSGRAVE, R. A. (1959). *The Theory of Public Finance*. New York: McGraw-Hill.
- MYLES, G. D. (1995). *Public Economics*. Cambridge UK: Cambridge University Press.

- NOZICK, R. (1974). *Anarchy, State, and Utopia*. New York: Basic Books.
- ORGANISATION FOR ECONOMIC COOPERATION AND DEVELOPMENT (2008). *Growing Unequal? Income Distribution and Poverty in OECD Countries*. Paris: OECD.
- ORGANISATION FOR ECONOMIC COOPERATION AND DEVELOPMENT (2011). *Divided We Stand: Why Inequality Keeps Rising*. Paris: OECD.
- ORGANISATION FOR ECONOMIC COOPERATION AND DEVELOPMENT (2013). *Action Plan on Base Erosion and Profit Shifting*. Paris: OECD.
- ORGANISATION FOR ECONOMIC COOPERATION AND DEVELOPMENT (2015). *OECD/G20 Base Erosion and Profit Shifting Project: 2015 Final Reports*. Paris: OECD
- PANTALEO, N., F. POSCHMANN, and S. WILKIE (2013). "Improving the Tax Treatment of Intellectual Property Income in Canada." Commentary 379. Toronto: C.D. Howe Institute.
- PIKETTY, T. (2013). *Capital in the Twenty-First Century*. Paris: Éditions du Seuil.
- PRESIDENT'S ADVISORY PANEL ON FEDERAL TAX REFORM (2005). *Simple, Fair and Pro-Growth: Proposals to Fix America's Tax System*. Washington.
- QUÉBEC TAXATION REVIEW COMMITTEE (2015). *Focusing on Québec's Future*. Gouvernement du Québec. Québec.
- RAWLS, J. (1971). *A Theory of Justice*. Cambridge, MA: Belknap Press of Harvard University Press.
- RAY, D. (2014). "Nit-Piketty: A Comment on Thomas Piketty's Capital in the Twenty First Century." Mimeo, New York University  
<http://www.econ.nyu.edu/user/debraj/Papers/Piketty.pdf>
- ROEMER, J. E. (1988). *Equality of Opportunity*. Cambridge MA: Harvard University Press.
- ROYAL COMMISSION ON TAXATION (1966). *Report*. (The Carter Report). Ottawa: Queen's Printer.
- SAEZ, E. (2002). "Optimal Income Transfer Programs: Intensive vs Extensive Labor Supply Responses." *Quarterly Journal of Economics*, 117: 1039-1073.
- SALANIÉ, B. (2011). *The Economics of Taxation*, Second Edition. Cambridge MA: MIT Press.
- SEN, A. K. (1985). *Commodities and Capabilities*. Amsterdam: North-Holland.
- SIMPSON, W., and H. STEVENS (2015). "The Impact of Converting Federal Non-refundable Tax Credits into Refundable Credits." Research Papers, 8(30), The School of Public Policy, University of Calgary.
- STIGLITZ, J. E. (2012). *The Price of Inequality*. New York: Norton.
- UNITED STATES TREASURY (1977). *Blueprints for Basic Tax Reform*. Washington: Treasury of the United States.
- WEINZIERL, M. (2014). "The Promise of Positive Optimal Taxation: Normative Diversity and a Role for Equal Sacrifice." Working Paper 14-013, Harvard Business School, Cambridge, MA.