

Corporate Tax Reform

Issues and Prospects for Canada

BY ROBIN BOADWAY & JEAN-FRANÇOIS TREMBLAY

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Canada's corporate tax system needs reform. This paper outlines a practical path to a new system that would align with the realities of a 21st century globalized economy.

Executive Summary

When the foundational elements of Canada's corporate tax were put in place, they addressed the needs and policy concerns of a very different national and global context. More than four decades on, a seismic shift has taken place that has fundamentally altered our social and economic circumstances: the economic integration resulting from globalization has led to greater capital and corporate mobility, increased competition on tax rates, and substantial restructuring of Canada's economic base away from manufacturing and toward services and resources. Higher rates of education and specialization, as well as women's increased economic participation, have transformed our labour markets. The economic transformation has also been marked by increases in precarious employment and income inequality.

These dramatic shifts have brought the need for substantive corporate tax reform clearly into view. While there have been significant efforts to modernize Canada's sales tax and personal income tax, there has yet to be a serious public debate about the role and design of a corporate tax system that better meets the needs of modern Canada. In fact, the system has remained largely unchanged throughout the post-war period.

Beyond serving as a significant source of public revenues, a modern corporate tax system should help federal and provincial governments achieve public policy goals of economic growth, increasing investment, and improving productivity and international competitiveness. An effective corporate tax should also raise revenues in a way that is efficient, transparent and equitable while discouraging avoidance.

Canada's current corporate tax system is failing on a number of fronts. It discourages investment, hampering innovation and productivity, by taxing the normal return to capital. It increases the risk of bankruptcy by treating debt financing more favourably than equity financing, which encourages firms to rely too heavily on debt finance. The system is economically inefficient and does not properly incentivize the right kinds of corporate behavior.

Changes in the personal income tax have also served to accelerate the need for corporate tax reform. Originally an extension of the personal income tax, the corporate tax was designed to prevent individuals from avoiding taxes by keeping income in a corporation. However, substantial changes to the personal income tax in recent years have made tax shelters widely available to Canadians through RRP, RRSPs, TFSAs, and RESPs. Therefore, the intended role of the corporate tax as a way to prevent the reinvestment of corporate profits tax free has largely been negated.

A number of other countries have already taken a hard look at their approaches to corporate tax and many have begun the process of reform. Reviews in the UK, the United States, and Australia have all recommended moving to a rent-based system of corporate tax, and some jurisdictions have implemented reforms on this basis.

A rent-based corporate tax focuses on extraordinary, or 'above-normal,' profits, rather than corporate income. Above-normal profits can arise from windfalls due to price-setting advantages (e.g. from a monopolistic position), unexpected price-changes, returns on intellectual property or locational advantages, natural resources or prime agricultural land. By taxing extraordinary

profits, instead of corporate income, a rent-based corporate tax can remove barriers to investment that exist in the current system. For example, a marginally-profitable project becomes unprofitable after income tax is applied. Therefore, the current tax system can have the perverse effect of discouraging corporate investment. A rent-based tax would also remove the incentive for corporations to rely more heavily on debt financing than equity financing.

To put it simply, the attraction of taxing rents is that, unlike the current system of taxing income, no economic inefficiency would result. In most cases, a tax on rents does not create a disincentive to investment, unlike a tax on normal profits.

The paper contains several recommendations to modernize Canada's corporate tax: the starting place for transition to a rent-based tax is the adoption of an allowance on corporate equity that would add a deduction for the cost of equity finance; this would be followed by changing the personal income tax by eliminating the dividend tax credit and including 100 per cent of capital gains in taxable income. Important additional reforms outlined in the paper would further strengthen the efficiency and fairness of Canada's corporate tax.

Moving the corporate tax from its current form to a rent-based tax could, on balance, increase the fairness of the tax system because existing allowances for dividends and capital gains would be eliminated—allowances that disproportionately benefit higher-income earners. Also, due to the highly integrated nature of today's international capital markets, corporate tax is largely shifted away from shareholders and on to workers. Because the focus of taxation would be on above-normal profit rather than corporate income, the current tendency for firms to pass along the cost of income tax to workers in the form of lower wages would be curtailed in the long run.

Canada's corporate tax system needs reform. This paper outlines a practical path to a new system that would align with the realities of a 21st century globalized economy.

The main features of Canada's corporate tax system have been in place for all of the postwar period and were designed to fit an earlier economic context.

1

Introduction and Context

Canada's corporate tax system is not only an important source of government revenue but also a tool to advance federal and provincial policy goals, such as increased economic growth, productivity, investment and international competitiveness. The design and structure of a modern corporate taxation system should raise revenues in a way that is efficient, transparent, and equitable, while discouraging avoidance.

The current system falls short of these goals. Because significant structural changes have not been introduced in decades, Canada now has a corporate tax framework that does not sufficiently respond to fundamental national and global economic challenges.

The main features of Canada's corporate tax system have been in place for the entire postwar period, and were designed for an earlier economic context. Circumstances have changed considerably, especially in recent years. The international economy has become more integrated, and capital and firms have become highly mobile and more global in nature. Tax competition has increased as well, reflected in a significant decline in corporate tax rates worldwide. The structure of the Canadian economy has changed, with natural resources and services, including financial services, becoming more prevalent at the expense of manufacturing, and with Western Canadian industries growing relative to Central Canadian ones. Labour markets have been transformed as the workforce becomes more educated and female participation rises. In recent years, employment has become more precarious and income inequality has increased.

There has been little public discussion of a new vision for our corporate tax system that would address these challenges. While modernization of Canada's sales tax has been taking place, along with serious debates about resource royalties, payroll taxes and carbon taxes, political consideration of corporate taxation has largely focused on improving the existing structure, notably whether tax rates should be higher or lower, or whether the tax base should be broadened. Over the past few decades, Canada's individual income tax has changed significantly, particularly as it relates to the taxation of income from capital, notably the evolution of Registered Retirement Plans and Registered Retirement Savings Plans and the introduction of Tax-Free Savings Accounts. As well, provincial natural resource levies have been moving toward more profit-sensitive structures, particularly in the oil industry. Yet the corporate tax, whose role is intimately related to the personal tax, has remained largely unchanged.

But every now and then, issues arise that present Canadians with stark reminders that the structure and design of the system—not just the rates—are crucial for the country. In 2006, the federal government changed the rules around income trusts in response to concerns that some companies were using the rules inappropriately to avoid corporate taxation. More recently, evidence has emerged that highly profitable corporations operating internationally have been able to limit the tax they pay in high-tax countries by arranging to report their profits in low-tax countries. Canadians are becoming aware that the design of the system and how revenues are treated are matters of concern for everyone, not just technical taxation experts.

Changes in the broader Canadian tax system exacerbate the need for corporate tax reform. A substantial proportion of capital income is now, or could be, sheltered from personal taxation through vehicles like Registered Pension Plans (RPPs), Registered Retirement Savings Plans (RRSPs), Tax-Free Savings Accounts (TFSA), and Registered Education Savings Plans (RESPs),

together with the tax-free status of the imputed returns on owner-occupied housing. The share of taxes collected by the provinces has gradually increased, and the tax-transfer system has become less progressive. This paper will discuss the relevance of these significant changes for corporate tax design.

Other countries have undertaken comprehensive reviews with an eye toward reform. Recent reviews include the President's Advisory Panel in the United States;¹ the Mirrlees Review,² conducted by the Institute for Fiscal Studies in the UK; and the Henry Review,³ commissioned by the Commonwealth Treasury in Australia. All propose transformation to reduce the inefficiencies, complexities, and inequities identified in their respective corporate tax structures. While they differ in important ways, these reports all suggest moving away from a system based on corporate income, and toward a rent-based, or super-profit-based, corporate tax system. As discussed more fully below, rents are profits that a firm earns that are over and above the normal rate of return in the economy. This paper will explore various rent-based models in detail, such as cash-flow taxation and an Allowance for Corporate Equity tax, and the implications of making a similar shift in Canada.

1 President's Advisory Panel on Federal Tax Reform, *Simple, Fair and Pro-Growth: Proposals to Fix America's Tax System* (Washington, 2005).

2 Mirrlees, James, Stuart Adam, Tim Besley, Richard Blundell, Stephen Bond, Robert Chote, Malcolm Gammie, Paul Johnson, Gareth Myles, and James Poterba, *Tax by Design* (the Mirrlees Review) (Oxford: Oxford University Press, 2011).

3 Australian Treasury, *Australia's Future Tax System* (the Henry Review) (Canberra: Commonwealth of Australia, 2010).

The traditional view is that a corporate tax is needed as a backstop or withholding device to preclude shareholders from accumulating income tax-free in corporations by retaining and reinvesting corporate profits.

2

An Overview of the Corporate Tax

The corporate tax—formally the ‘corporation income tax’—is levied on the income earned by all corporations operating in Canada, both resident and non-resident, and on income earned worldwide by Canadian resident corporations. Like the individual income tax, the corporate tax is governed by the federal Income Tax Act.

As with any tax system, corporate tax revenues are obtained by applying a tax rate to a tax base. The base of the corporate tax is a measure of the income earned by a corporation on its shareholders’ behalf, and is defined the same way as business income earned by individuals.

The corporate tax is said to be a tax collected on shareholder income at source, that is, at the point at which the income is earned by a corporation, whether or not it is paid out to shareholders. That part which is not paid out as dividends is retained in the corporation and invested in either physical or financial assets. Retained income increases the value of the corporation and gives rise to capital gains for the shareholders. Dividends and capital gains are also taxed at the individual level, for Canadian shareholders.

Corporate income is subject to a federal tax rate as well as tax rates set by the provinces in which the income is earned. In each case, there is a basic rate as well as special rates for small businesses. All provinces except Alberta and Quebec have entered into bilateral corporate Tax Collection Agreements (TCAs), under which provinces agree to adopt the federal tax base, but set their own corporate income tax rates. Under the TCAs, both federal and provincial taxes are administered by Canada Revenue Agency (CRA), which reduces costs significantly. Agreeing provinces are also allowed to implement provincial tax credits that do not discriminate against residents of other provinces. Despite not being members of TCAs, Alberta and Québec define their tax bases to be similar to the federal one. That is, their starting point is the federal base and they then make corresponding adjustments.

For corporations that operate in more than one province, income is generally allocated among provinces based on the proportion of their payrolls and their sales in the province, referred to as *formula apportionment*. Corporations retain some discretion regarding this allocation by organizing themselves into separate subsidiaries. Those that choose to do so are not required to consolidate the accounts of their subsidiaries for tax purposes. Subsidiaries operating in different provinces are taxed at the corporate tax rate applicable in each province. As Mintz and Smart⁴ observe, corporations may be able to shift profits from subsidiaries in high-tax provinces to those in low-tax provinces using transfer pricing or financial planning techniques.

Corporations pay other taxes besides the corporate income tax, including municipal property taxes and provincial resource royalties and mining taxes, and these are generally deductible from corporate income for tax purposes.

⁴ Mintz, Jack, and Michael Smart, ‘Income Shifting, Investment, and Tax Competition: Theory and Evidence from Provincial Taxation in Canada,’ *Journal of Public Economics* 88, 2004, 1149-68.

Structure of the Corporate Tax

Calculation of Income

The corporate tax base, or taxable income, consists of total revenues less current and capital costs. Current costs are the cost of inputs that contribute to the production of output in the year they are purchased. They include costs of labour, materials and utilities, and are deductible in the tax year in which they are incurred.

Capital costs are the cost of inputs that yield production over a period of years, and include machinery and equipment, investment and communication technology, buildings and natural resources. Each year, deductions for capital costs are those attributed to the use of capital in that year. They include an allowance for the depreciation of capital, called the *capital cost allowance (CCA)*, and interest payments incurred, if any, in financing the purchase of the capital. In practice, the CCA is calculated by applying a given percentage rate of depreciation to the remaining value of the capital in each tax period. CCA depreciation rates differ by type of capital, and are chosen to reflect the service lives of these different capital categories.⁵ Over the life of a capital investment, the sum of CCA deductions equals the initial cost of the investment. Certain CCA rates are accelerated and allow for the depreciation of an asset faster than its service life as an incentive to make certain investments. Capital equipment used in research and development activities and in manufacturing and processing are examples.

Some types of expenses are treated as current expenses and deducted immediately even though they give rise to revenues in the future so are capital in nature. Thus, training costs represent an investment that will increase worker output into the future, advertising expenses increase future revenues, research and development expenditures lead to productivity gains, and so on. Similarly, exploration activities by natural resource firms lead to the possibility of finding a valuable resource property, and these expenses are allowed to be written off in the year expended.

⁵ There are eighteen main CCA classes with depreciation rates varying between 4 percent and 100 percent. For example, buildings are given CCA rates of 4 or 5 percent depending on the year of purchase, most motor vehicles face a CCA rate of 30 percent, whereas computer hardware and software have a CCA rate that declines over time and generally ranges between 30 and 55 percent. New machinery and equipment investment in manufacturing and processing are allowed two-year accelerated CCA of 50 percent of the cost each year. This is a temporary incentive for investment that is supposed to end in 2015.

Tax credits are available at both the federal and provincial levels for specific expenditures, such as charitable or political donations, investments in high-unemployment regions, and research and development spending.⁶

Accrual Accounting

The accrual method of accounting is used by corporations and in computing the income of most businesses. Under accrual accounting, all revenues and costs are counted for tax purposes as they accrue, rather than when payment is made. Under this accounting framework:

- » Capital investment is deducted as the capital is utilized over its life, not when it is purchased
- » Costs of current inputs are deducted when the inputs are actually used, not simply when they are purchased
- » Revenues are added when sales are made, not when cash payments are subsequently received

This method of attributing revenues and costs is distinguished from cash accounting whereby revenues and expenses apply as cash receipts or payments are made, including for capital purchases. Cash accounting is simpler and more accurate than accrual accounting, especially in the case of capital inputs, since it is difficult to measure the use of capital in each tax period, but relatively easy to measure purchases of capital. Individual employment income is generally computed on a cash basis.

Impact of Inflation

The accrual method of accounting does not reflect the impact of inflation, and that influences investment in two ways:

- » Since interest deductions are based on nominal interest rates, during periods of inflation interest rates will increase to cover the reduction in the real value of the underlying principal. This enhances the value of the interest deduction to the firm since some of the nominal loan principal is implicitly being deducted, and encourages investment financed by debt.

⁶ Some of these deductions are quite substantial. For example, reductions in federal corporate income tax for the Scientific Research and Experimental Development Investment Tax Credit (SRED), in respect of charitable donations and for the Atlantic Investment Tax Credit are projected to represent in 2012, \$1.9 billion, \$345 million and \$216 million, respectively. To put these numbers in perspective, the SRED deduction alone represented about 6 percent of total federal corporate income tax revenues. The revenue costs to the federal government of deductions, credits and other special tax incentives are reported annually in *Tax Expenditures and Evaluations* (Ottawa, Department of Finance).

» In the case of depreciation, the CCA applies to the original cost of an investment, and does not account for any increase in replacement cost due to inflation. The use of historic cost CCA deductions understates the cost of depreciation in times of inflation, and so discourages investment.

Negative Tax Liabilities

A crucial asymmetry applies between firms whose taxes payable—or tax liabilities—are positive versus negative. Negative tax liabilities arise when a firm's tax base is negative, for example, because it is incurring large expenditures in anticipation of future sales or because its gross revenues are unexpectedly low relative to costs incurred.

Whereas firms with positive tax liabilities must pay them to the government, negative tax liabilities are not refundable. Instead non-capital losses (i.e., ordinary income losses) can be carried forward to reduce future taxes for up to 20 years, and backward to reduce past taxes paid in the previous three years. Interest does not apply to either carry-forward or carry-backward of losses, which implies that the benefit is less than would be the case if losses were fully refunded. Negative tax liabilities are more likely to arise with small firms than large ones, especially small firms that are growing and undertaking risky investments. Large firms are more likely to be able to offset losses on some investments against gains on others. Firms that go out of business with outstanding tax losses cannot recoup them. Note however that firms with losses are often sold, although usually at a significant discount, to a buyer who will be able to amalgamate these losses against future income.

Integration with Personal Taxation

As mentioned, the corporate tax is a tax on income earned by a corporation on behalf of its shareholders. Income that is taxed when it is earned by the corporation may be taxed again at the personal level when the profits are distributed as dividends or when shares are sold for capital gains. This so-called *double taxation* is reduced by two integration provisions in the personal tax system:

» A tax credit applies to dividends received from Canadian corporations. Dividends from large Canadian corporations receive a tax credit of about 21%, and those from small corporations receive 17%.⁷

» Half of capital gains on all assets, including shares in Canadian corporations, are excluded from personal taxable income.

In some cases, corporate taxation is more directly integrated with personal taxation. For example, flow-through shares may be used in the mining industry to allow shareholders to deduct exploration and development expenses incurred by the corporation directly against personal income rather than against corporate income. Also, income earned in a trust allows profits that would otherwise be taxed at the corporate level to be taxed at the personal level. This structure is currently in place for real estate investment trusts (REITs) but was curtailed in the limitations imposed on other income trusts in 2006.

Double taxation does not occur to the extent that shareholder income goes untaxed, or may be deferred. Shares may be held in Tax-Free Savings Plans (TFSPs) that are exempt from personal income taxation. In the case of shares held in Registered Pension Plans (RPPs) and Registered Retirement Savings Plans (RRSPs), personal taxation is deferred until the funds are withdrawn. Earnings on RPPs and RRSPs accumulate tax-free, which is equivalent to sheltering their returns from taxation as discussed later, so double taxation is also mitigated. It is important to note that integration provisions (dividend tax credit and preferential capital gains taxation) do not apply to income earned in these sheltered forms. In principle, one could argue that integration should apply to income earned in TFSPs, RPPs, RRSPs, given that their purpose is to shelter the return to saving from taxation, although this is an issue of debate.

⁷ To be more precise, dividends from large corporations are grossed up by 38% and the dividend tax credit is 6/11 of the amount of the gross-up. For small corporations, the gross-up rate is 25% and the dividend tax credit is 2/3 of the gross-up. Starting in 2014, the rate of gross-up for small corporation dividends will fall to 18 percent, and the dividend tax credit will fall to 13/18 of the gross-up. Technically, the higher credit of 21% applies to "eligible dividends" which are generally dividends paid to Canadian residents by public companies and by Canadian-controlled private corporations (CCPCs) out of income taxed at the federal general corporate tax rate (for example, passive income earned by CCPCs). The lower rate applies to non-eligible dividends which are those that are not subject to the dividends rules applying to "eligible" dividends (generally, it applies to CCPCs that were subject to the special lower rate for active business income).

It should be noted for subsequent discussion that the special treatment of capital gains reflects more than its role in preventing double taxation, although that is a primary consideration. On the one hand, it might be argued that the portion of a capital gain reflects a nominal increase in the asset price to offset inflation rather than a real return, and this should not be taxed. Preferential taxation of all capital gains is a crude way of addressing this issue, although similar arguments should apply more generally to all capital income. On the other hand, since capital gains are only taxed when they are realized rather than when they accrue, taxpayers are able to defer capital gains taxation and to that extent they should not be given preferential treatment. Preferential treatment of capital gains might also be justified as a way of mitigating the fact that capital gains taxation might discourage risk-taking to the extent that capital losses cannot be fully recouped. For example, capital losses cannot be offset against ordinary income, although they can be carried forward. On balance, it is not clear that the net effect supports preferential treatment of all capital gains, especially in periods of low inflation. Following the Mintz Report, we shall regard the preferential treatment of capital gains as being primarily useful as a way of achieving some integration of corporate and personal taxation, albeit very imperfectly.

Finally, there are several other provisions in the income tax system favoring capital gains besides the 50 percent inclusion rate. We have already mentioned that capital gains are taxed on realization rather than accrual, which allows taxpayers to defer taxation. An exception to this is that capital gains are deemed to be realized on death, a provision that partly reflects the absence of estate taxation in Canada. Deemed realization occurs in other circumstances, such as when assets are the subject of a gift, when taxpayers give up Canadian residency, and when assets are held in personal trusts every 21 years. Farming and fishing businesses that are passed to children are not subject to deemed realization. Some assets are exempt from capital gains tax. Taxpayers' principal residence is one important example. Another is a gift of publicly traded shares to a charitable organization. A final one is the lifetime exemption applicable to individuals who are farmers, fishers or shareholders of a small Canadian corporation. These taxpayers are eligible for a lifetime exemption of \$800,000 on these assets. The income tax system is replete with many other special provisions relating to capital gains, and this leads to incentives for tax planning to convert one form of income into another to reduce tax

liabilities.⁸ For the most part, we shall not be concerned with these issues, except to the extent that our proposals serve to reduce these tax planning activities.

Purpose of the Corporate Tax

Backstop to the Personal Tax

These features of the corporate tax reflect its perceived rationale as enunciated by the Royal Commission on Taxation Report (Carter Report) back in 1966.⁹ The Carter Report argued that the corporate tax was inextricably linked to the personal income tax. It proposed a *comprehensive personal income tax system*, that is, a system in which all sources of income are treated alike (epitomized in the phrase 'a buck is a buck'). In this framework, income from all forms of asset ownership, including bonds, shares, housing and intangible property, should be taxed on a par with employment income.

To achieve this, a corporate tax is needed as a *backstop* or *withholding device* to preclude shareholders from accumulating income tax-free in corporations by retaining and reinvesting corporate profits. A framework that taxes income earned by corporations on behalf of shareholders accomplishes this, provided the shareholders are given credit for corporate taxes paid on their behalf when the corporate income is eventually paid out. That is, the corporate tax must be integrated with the personal tax. To fully prevent the deferral of tax within a corporation, the corporate tax rate would need to be equal to the personal tax rates, with a corresponding credit. Since corporate tax rates are generally lower than personal tax rates, at least those of higher-income taxpayers, the current system reduces this but does not eliminate this deferral advantage. The lower rates in place for small business are explicitly designed to encourage reinvestment of earnings.

The Carter Report proposed what would have been a very complex system whereby the credit given to shareholders for corporate taxes that had been paid on their behalf would be based on the amount of taxes the corporation actually paid. The recommendations of the Carter Report were never fully implemented—the dividend tax credit is available regardless of the amount of taxes that the corporation had paid—but the views it summarized are those that have since guided the design of the corporate tax.

⁸ A summary of special capital gains provisions may be found in Kerr, Heather, Ken McKenzie, and Jack Mintz (eds.), *Tax Policy in Canada*, (Toronto: Canadian Tax Foundation, 2012), Chapter 6.

⁹ Royal Commission on Taxation, *Report (the Carter Report)* (Ottawa: Queen's Printer, 1966).

Government Revenue Source/ Policy Lever

It has been recognized that the corporate tax fulfils purposes other than being a backstop for the personal tax. The corporate tax might be regarded in part as a payment for the benefits that corporations receive from the government in the form of a trained work force, public infrastructure, and the rule of law and protection of property rights.¹⁰ The tax might also be seen as an instrument of industrial policy whereby the government can influence economic activity by reducing tax rates in certain areas (small business), increasing rates in others (surtax on tobacco manufacturing profits, which was in place for a number of years), or providing tax credits selectively to some industries (such as film-making). It might be viewed as a means of taxing income earned by foreign-owned corporations whose shareholders are not subject to Canadian taxation. The corporate tax might also be considered to be an instrument of redistribution policy, given that shareholders of corporations are typically more affluent than others despite the significant holdings of shares in corporations by pension funds on behalf of future pensioners with different income levels.

Corporate Tax as Tax on Rents

Rents refer to profits above the normal return to capital established in capital markets (the risk-adjusted interest rate). They can arise in various forms: profits from monopoly and oligopoly price-setting behaviour, returns on intellectual property, profits from locational advantage, windfall profits from unexpected price changes, and returns on fixed factors, like natural resources and prime agricultural land. The public finance literature has long recognized the potential of the corporate tax to be a means by which governments could tax corporate rents, also called *above-normal profits*.¹¹

The attraction of taxing rents is that, unlike the current system of taxing income, no economic inefficiency would result. In most cases, a tax on rents does not create a disincentive to investment, unlike a tax on normal profits.¹² The impact of a rent tax on investment incentives is discussed in more detail below.

10 This rationale for a corporate tax has recently been restated by Mintz in a National Post opinion column as follows: "... in my view the broad-based corporate income tax is still required in today's world. It ensures that individuals cannot escape personal taxation by leaving income in the corporation. Further, the corporate tax is a surrogate user charge paid by businesses that earn more profits from beneficial public services such as infrastructure." See Mintz, Jack M., 'OECD's flawed corporate tax plan,' *FP Comment*, July 22, 2013.

11 The classic reference is Brown, E. Cary (1948), 'Business-income taxation and investment incentives,' in *Income, Employment and Public Policy: Essay in Honor of Alvin H. Hansen* (New York: Norton, 1948).

12 Using a concept we discuss further below, the marginal effective tax rate under rent taxation would be zero.

Corporate Tax Rates and Revenues

The current federal tax rate for general corporations is 15 percent and provincial rates range between 10 and 16 percent, although some provinces have a special rate applying to income from manufacturing and processing activities. The small business federal rate for Canadian-controlled private corporations (CCPCs) with active business income below \$500,000 is 11 percent while provincial rates vary from 0 to 8 percent.¹³ For CCPCs, the federal rate applying to investment income is substantially higher, at 34.7 percent (including a 6.7 percent refundable tax), than for active business income, thereby roughly fully integrating the taxation of investment income.¹⁴

Corporate tax rates have been declining over time, both in Canada and abroad, as shown in Figure 1, next page. In Canada, the combined federal and provincial statutory rate has decreased from 42 percent in 2000 to 26 percent in 2013, the second-largest rate reduction over that period among G-7 countries, behind Germany. As a result, the combined tax rate is now much lower in Canada than in the US, where both federal and state rates have remained constant over the same period. The OECD average tax rate is relatively low, and the EU average tax rate is even lower at 23.2 percent in 2013 owing partly to several countries that maintain very low rates. Examples include Cyprus (10 percent), Ireland (12.5 percent), and Latvia and Lithuania (both 15 percent). The existence of countries with substantially lower tax rates makes it tempting for corporations to arrange to report their profits there, a phenomenon referred to as *profit-shifting*.

13 In Nova Scotia and Manitoba, the income threshold to qualify for the small business rate is \$400,000.

14 Part of taxes paid on investment income is refunded when the income is distributed as dividends to shareholders. An amount equal to 6.7 percent (the refundable tax) plus 20 percent of investment income is registered in the Refundable Dividend Tax on Hand (RDTOH) account of the corporation. A refund equal to the minimum of the RDTOH balance or one third of dividends paid is provided.

FIGURE 1
Statutory Corporate Tax Rates

	CENTRAL GOVERNMENT TAX RATE			COMBINED CENTRAL AND SUB-NATIONAL TAX RATE		
	2000	2007	2013	2000	2007	2013
Canada	29.1	22.1	15.0	42.4	34.0	26.1
France	37.8	34.4	34.4	37.8	34.4	34.4
Germany	35.0	21.9	15.8	52.0	38.9	30.2
Italy	37.0	33.0	27.5	37.0	33.0	27.5
Japan	27.4	28.0	26.2	40.9	39.5	37.0
United Kingdom	30.0	30.0	23.0	30.0	30.0	23.0
United States	32.7	32.7	32.8	39.3	39.3	39.1
OECD average	30.1	24.9	23.7	32.6	27.0	25.5

Source: OECD Tax Database
Note: Tax rates are adjusted for surtaxes and deductions for sub-national tax

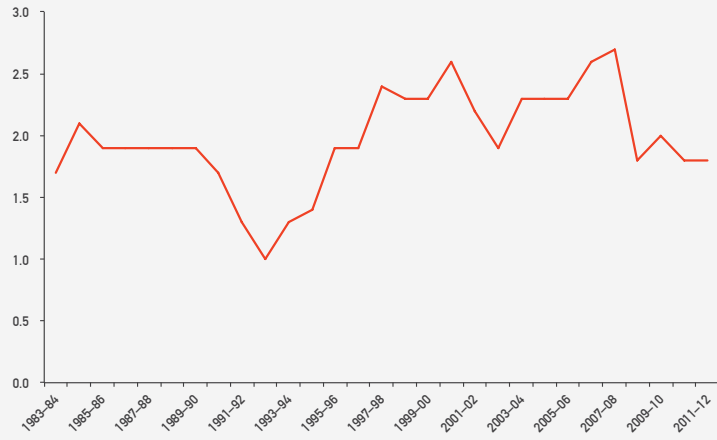
The corporate tax is a significant source of federal and provincial government revenues. Its revenue generation has remained remarkably stable over the last four decades. Total federal and provincial corporate tax revenues as a percentage of GDP remained at 3.4 percent in 1970 and 2010, while personal income tax revenues rose slightly from 10 percent to 11 percent.¹⁵ These percentages have been relatively constant over the period, as has the breakdown between federal and provincial corporate tax revenues, with provincial revenues being roughly 35 percent of the total.¹⁶ The stability of corporate tax revenues may be surprising to some, given that the statutory tax rates have fallen significantly over the period. This reflects an increase in the underlying corporate tax base, both from a broadening of the corporate tax base to reduce or eliminate corporate tax incentives in the 1980s and 1990s, and the positive impact of firms allocating relatively more revenues to Canadian operations, particularly given the significant tax rate advantage in Canada relative to the United States.

The evolution of federal corporate tax revenues as a percentage of GDP and as a percentage of total federal revenues is shown in Figure 2. There have been some cyclical variations, including below-average revenues in the early 1990s and relatively sharp declines in revenues in the early 2000s and in the two years that followed the recent financial crisis, but the trend is relatively constant. Overall, the growth rate of corporate income has been sufficient to offset the effect of falling tax rates on corporate tax revenue.

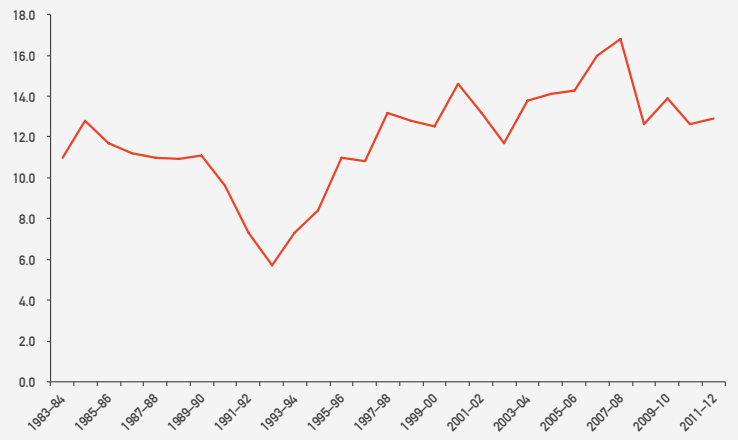
¹⁵ These data come from Canadian Tax Foundation, *Finances of the Nation 2011* (Toronto, Canadian Tax Foundation, 2012), Table B.4, pp. B:7–B:8.
¹⁶ Corporate tax revenues in 2011 were equal to \$32.8 billion at the federal level and \$22 billion at the provincial level. These represented about 13 percent of total federal revenues and 8 percent of provincial own-source revenues (*Fiscal Reference Tables 2012*, Department of Finance, Ottawa).

FIGURE 2

Federal Corporate Tax Revenues as a Percentage of GDP



Federal Corporate Tax Revenues as a Percentage of Total Federal Government Revenues



Source: Fiscal Reference Tables 2012.

Recent thinking on tax policy is reflected in the 2011 Mirrlees Review from the UK, which represents the consensus among a number of prominent public finance economists who participated in the Review.

3

Evolving Views of the Corporate Tax— Recent Global Experience

As mentioned, the view of the corporate tax as a backstop for the personal tax was a consequence of the Carter Report position that individuals should be taxed on their comprehensive income, including both labour and asset income. In order to tax the income of shareholders on a current basis, it is necessary to impose taxes when income is earned by the corporation. Views about the basic design of the tax system have evolved internationally since Carter, and it is worth recounting that evolution.

The Meade Report

The Meade Report in 1978 in the UK¹⁷ recommended a *progressive personal consumption tax* instead of a comprehensive income tax. Capital income would not be taxed. Tax progressivity would be maintained through the tax rate structure. As an added element of progressivity, the Meade Report also recommended a separate progressive tax on cumulative inheritances received.

The Meade Report proposed two alternative ways of sheltering capital income from personal taxation. Savings could be treated on a *tax-prepaid basis*, which means that such savings would not be deducted from taxable income, but their asset income would be tax exempt. This corresponds with TFSAs in the Canadian system, as well as with owner-occupied housing and other consumer durables whose implicit returns are not taxed. Savings could also be treated on a *registered basis*, whereby the savings are deductible from income and accumulate tax-free as long as they are held in registered form. When registered savings are drawn down, the amount taken out, which includes both the original saving and the accumulated returns, are taxed.

This is how RRRs and RRSPs are treated. Note the important point that the return on tax-prepaid savings is fully sheltered from tax, while the normal return on registered savings are as well. Above-normal returns on registered savings are taxed when the savings are withdrawn. A simple numerical example is presented in the Appendix to illustrate these differences between tax-prepaid and registered savings. It also shows that for savings that yield a normal return, the present value of the personal tax base under either tax-prepaid or registered tax treatment is the same as the present value of consumption. That is the sense in which the Meade Report proposed them as methods for designing a progressive consumption tax.

An alternative way of contrasting tax-prepaid and registered savings applies if asset returns are risky. When savings are registered, the value of the funds on withdrawal will be higher or lower depending on whether the risk returns turn out to be better or worse. Since these are subject to taxation, the tax system effectively shares in the risk and implicitly provides some insurance to the taxpayer. This does not apply with tax-prepaid savings.

¹⁷ Report of a Committee Chaired by Professor James Meade, *The Structure and Reform of Direct Taxation* (London: Allen and Unwin, 1978).

There would be no need for the corporate tax as a backstop since shareholder income would not be taxable. Instead, Meade proposed using the corporate tax to tax rents. This would be accomplished by a *cash-flow tax* on businesses. As the name implies, the tax base would be total cash receipts less total cash outlays, with no distinction between current and capital costs. In the case of capital investments, they would be fully deducted when made rather than being gradually expensed via CCA. There would be no interest deductibility. Such a tax can be shown to be equivalent to a tax on rents, so would not discourage investment. In order to tax the rents earned by financial corporations, Meade also recommended a different form of cash-flow tax that also applied to them.

Though favoured by many economists at the time, the Meade proposal was never implemented, largely because of resistance to eliminating capital income from the personal tax base.

In the interim, tax systems and world economies have evolved. A significant portion of capital income is now sheltered from taxation, in Canada through vehicles like RPPs, RRSAs, TFASAs, RESPs, housing, and consumer durables. As well, in many countries, a sizeable proportion of tax revenues now come from indirect consumption taxation such as value-added taxes (VATs), which by design effectively exempt capital income. Except for higher-income groups who have exhausted their limits on sheltered saving, the existing tax system could well be described as consumption-based. Finance Canada has estimated that with the advent of TFASAs, over 90 percent of Canadians will eventually be able to hold all their assets in tax-sheltered form.¹⁸

At the same time, contrary to what Meade and others recommended, the rate structure has not maintained its progressivity and inheritances remain largely untaxed in most countries.¹⁹ The international economy has also become much more open, especially with respect to capital markets. The result is that for countries like Canada, one could argue that the required rate of return on capital after corporate taxes is determined abroad. As we shall argue below, this has potentially important implications for corporate tax design in Canada.

¹⁸ Finance Canada, 'Tax-Free Savings Accounts: A Profile of Account Holders', in *Tax Expenditures and Evaluations 2012* (Ottawa, 2013).

¹⁹ Note that while Canada has eliminated its estate tax, it has imposed capital gains tax on most assets upon death (subject to deferral for spouses). This can correspond to a significant portion of an estate, and will represent an increasing share of revenues from capital gains over time. This has also improved equity since it ended the deferral of accrued but unrealized capital gains in each generation for a broad range of taxpayers.

Post-Meade Rent Tax Proposals

The framework presented in the Meade Report represented a sea change relative to the prevailing wisdom. This was mirrored in contemporary reform proposals in the United States and Canada.²⁰ Although these ideas were not enacted, their legacy may be found in more recent proposals.

The 2005 President's Panel in the US offered two alternatives for federal tax reform. One, referred to as the Simple Income Tax Plan, essentially would streamline the existing system without changing its fundamental nature. The other, the Growth and Investment Tax Plan, recommended fundamental changes to the taxation of capital income. A key recommendation was a cash-flow tax for business income, both corporate and personal, including a special cash flow tax on financial institutions. It was not a pure cash-flow tax since tax losses would not be refundable. Instead, they could be carried forward indefinitely with interest (but would not be refundable for businesses that have been wound up). Tax sheltering would exist for a significant proportion of personal savings, while non-sheltered capital income would be taxed at a low flat tax rate of 15 percent.

Recent thinking on tax policy is reflected in the 2011 Mirrlees Review from the UK, which represents the consensus among a number of prominent public finance economists who participated in the Review. With respect to the personal tax, the Review opted for a system of sheltering capital income except for above-normal returns on share income (dividends and capital gains) and on personal business income. In particular:

- » Income from owning shares would only be subject to tax after a deduction for the normal return to capital, i.e. returns above the risk-free rate of return; interest income would be tax-free.
- » Contributions to retirement savings schemes would still be deductible, and withdrawals fully taxed.
- » Inheritances would be taxed progressively above an exemption level.

²⁰ Comparable reforms were recommended by United States Treasury, *Blueprints for Basic Tax Reform* (Washington: Treasury of the United States, 1977), and in Canada by both the Macdonald Commission, Royal Commission on the Economic Union and Development Prospects for Canada, Report (Ottawa: The Commission, 1985) and the Economic Council of Canada, *Road Map for Tax Reform: The Taxation of Savings and Investment* (Ottawa: Economic Council of Canada, 1987).

These proposals are similar to those of the Meade Report, except for the taxation of above-normal returns on share income. In the Meade Report, above normal income would only be taxed if shares were held in tax-deferred form (e.g., RRSP or RRP form).

For corporate taxation, the Mirrlees Review recommended an *Allowance for Corporate Equity (ACE)* system, whereby firms can deduct not only interest on borrowing used to finance investment, but also a risk-free rate-of-return return on investment financed by equity. This leads to a tax system that captures rents and windfall profits since above-normal costs of shareholder-financed investment are taxed. In fact, it can be shown that an ACE system is effectively equivalent to a cash-flow tax system.²¹ The Mirrlees Review also called for continued integration with the personal tax.

The ACE corporate tax system has long been advocated in Europe, initially at the urging of the Institute of Fiscal Studies in the UK.²² It has been applied in a selected number of countries, including Belgium, Brazil, Croatia and Italy.²³

The ACE system is a special case of a general rent tax system initially studied by Boadway and Bruce, and Bond and Devereux.²⁴ It is useful to explain briefly how it works and why it is a rent tax. Under a cash-flow tax, taxable income is simply total cash revenues less total cash costs in each tax period. Under a general Boadway-Bruce tax, taxable income still includes total cash revenues less current cash costs. Capital expenditures are put into a capital account each year. Then, in each tax year a proportion of the capital account is deducted from the tax base as depreciation, and in addition, a cost of finance is deducted by applying a risk-free interest rate to the capital account. The same procedure applies each year.

Such a system is equivalent to a cash flow system regardless of the depreciation rate that is used. A lower depreciation rate implies a larger capital account and therefore a larger financial cost deduction. The larger financial deduction just offsets the lower depreciation expense. In effect, relative to a cash-flow tax, deductions for capital spending are postponed, but they are postponed with interest. The

present value of capital deductions is therefore the same as the value of capital expenditures itself. A worked example of the current tax system, cash flow taxation and the ACE system is presented in the Appendix.

Another form of rent tax system was recommended by the 2010 Henry Review in Australia. This review proposed a federal Resource Rent Tax (RRT) for the mining industries, which was subsequently enacted (and which the recently elected government has promised to repeal). Under the RRT, corporate cash flows would be tax-free until their value equaled the normal rate of return. All cash flows above that would be fully taxed. Like the Boadway-Bruce tax scheme, this is equivalent to a tax on rents. Whereas under the former, deductions for capital expenses are postponed with interest, with an RRT, cash flows themselves are postponed with interest. Unlike a simple cash-flow tax, it avoids the issue of refunds on negative tax liabilities early on in a project's life.

Other Corporate Tax Designs

Auerbach, Devereux and Simpson, in a background paper for the Mirrlees Review, explored other options for corporate tax design.²⁵ An alternative system that is neutral with respect to decisions to finance investments using debt or equity is the Comprehensive Business Income Tax (CBIT). Under a CBIT, there is no deduction for interest costs, so that debt finance and equity finance are treated similarly. While a rent-type tax has a narrower base relative to the current system since it gives more deductions, a CBIT has a broader base. As a result, a given amount of revenue can be raised with a lower tax rate. The CBIT avoids the incentive for using debt finance, but discourages investment overall.

There are also other variants of the cash-flow tax that are feasible in principle. One of them is the destination-based cash-flow tax which works similarly to a value-added tax. Under this system, a firm's exports are deducted from its taxable income but its imports of intermediate products are taxed. The main advantage of defining the tax base this way is to remove incentives for firms to shift activities and profits abroad. We will return to these alternative tax systems in Section 7.

21 See Bond, Stephen R., and Michael P. Devereux, 'Generalised R-based and S-based Taxes under Uncertainty,' *Journal of Public Economics* 87, 2003, 1291–311.

22 Institute for Fiscal Studies, *Equity for Companies: A Corporation Tax for the 1990s*, Commentary 26 (London, 1991).

23 For a summary of experience, see Klemm, Alexander, 'Allowances for Corporate Equity in Practice,' *CESifo Economic Studies* 53, 2007, 229–62.

24 Boadway, Robin, and Neil Bruce, 'A General Proposition on the Design of a Neutral Business Tax,' *Journal of Public Economics* 24, 1984, 231–9; Bond, Stephen R. and Michael P. Devereux, 'On the Design of a Neutral Business Tax under Uncertainty,' *Journal of Public Economics* 58, 1995, 57–71.

25 Auerbach, Alan J., Michael P. Devereux, and Helen Simpson, 'Taxing Corporate Income,' in Stuart Adam, Timothy Besley, Richard Blundell, Stephen Bond, Robert Chote, Malcolm Gammie, Paul Johnson, Gareth Myles, and James Poterba (eds.), *Dimensions of Tax Design: The Mirrlees Review* (Oxford, Oxford University Press, 2010), 837–93.

One further innovation mentioned above is the so-called Nordic tax or *dual income tax* that has been adopted in some European countries. This system applies a progressive tax structure to earnings and transfers received, while capital income is taxed at a low, uniform rate. The uniform rate facilitates withholding by financial institutions, as well as integration with the corporate tax, which bears the same tax rate as that on capital income. At the same time, it results in a less progressive tax system since capital income accrues disproportionately to high-income persons.

A significant number of these reforms have been enacted in the past decade, particularly rate reductions and reducing some special forms of tax preferences. These are discussed in more detail below and summarized in Table 1. The effect of these reforms has been to solidify the income tax system in the Carter mould rather than moving it toward a Meade-type consumption tax supplemented by cash flow corporate taxation.

Incremental Reform

The corporate tax options discussed above involve a significant redesign of the system of taxing corporate income. A more incremental approach whose purpose was to enhance the efficiency of the existing system was proposed by the 1997 Mintz Report prepared for the federal Department of Finance.²⁶ It accepted the traditional objective of the corporate tax as a backstop to the personal tax, and advocated changes that would both reduce the investment disincentives of the corporate tax and improve its integration with the personal tax.

Its core proposals entailed broadening the corporate tax base and reducing the rate. Some of its key recommendations relevant to us include:

- » Broaden the tax base by reducing R&D incentives; eliminate the Atlantic Investment Tax Credit; make CCA rates closer to true depreciation rates; and reduce the favorable treatment of resource industries.
- » Reduce the federal corporate tax rate to 20 percent, and retain the preferential small business tax rate.
- » Reduce compliance costs and improve enforcement, including by reducing the ability to shift income abroad using interest deductions and transfer pricing.
- » Retain the dividend tax credit as a method of integrating the corporate and personal income taxes, but tie it more closely tied to actual taxes paid.
- » Maintain the preferential treatment of capital gains both as a component of integration and to ensure that capital gains and dividends are taxed at the same rate.

²⁶ Technical Committee on Business Taxation, *Report (the Mintz Report)* (Ottawa: Department of Finance, 1998).

Corporations nominally pay the tax on behalf of their shareholders, but the actual burden of the tax could be shifted in part to workers, to consumers of corporate products, or to non-corporate capital owners through changes in wage rates, market prices and rates of return.

4

Who Pays the Corporate Tax?

Taxes are not necessarily borne by the entities legally liable for paying them, and this is particularly true for the corporate tax. Corporations nominally pay the tax on behalf of their shareholders, but the actual burden of the tax could be shifted in part to workers, to consumers of corporate products, or to non-corporate capital owners through changes in wage rates, market prices and rates of return.

There is some recent evidence that labour and non-corporate capital-owners bear much of the tax. For example, a recent European study by Arulampalam, Devereux and Maffini found that 49 percent of corporate tax increases were shifted to workers in the form of decreased wage bills, based on recent firm-level data from nine European countries.²⁷ Using data from Germany only, Fuest, Peichl and Siegloch found an even greater tax-shifting effect. They estimated that 77 percent of corporate tax increases were shifted to workers.²⁸ Finally, Liu and Altshuler used data from the US and found that a one dollar increase in corporate tax revenues resulted in a 0.60 cent decrease in wages.²⁹

The concept of tax shifting is not well-understood outside the economics community. The possibility of tax shifting is, however, important for a full understanding of the case against viewing the role of the corporate tax as a backstop for the personal income tax. The corporate tax drives a wedge between before-tax and after-tax returns to corporate capital. If the former were fixed, after-tax earnings would fall by the full amount of the tax, meaning that the burden of the tax is borne by the corporation (on behalf of its shareholders). By increasing the before-tax rate of return (through reducing the wage bill or raising consumer prices), a corporation can minimize the reduction in after-tax returns, thus shifting the cost of the tax.

The mechanism by which tax shifting occurs can best be seen by understanding that Canada is a small open economy that faces given prices for its traded products and also, through international capital mobility, a given rate of return on capital. That is, any tendency for the return on capital in Canada to fall will result in less investment in Canada in the long run. The before-tax return on capital will have to rise in order for the after-tax return to stay at the internationally mandated level, and since the price of output is also determined internationally, the price of non-capital inputs must fall, particularly labour.

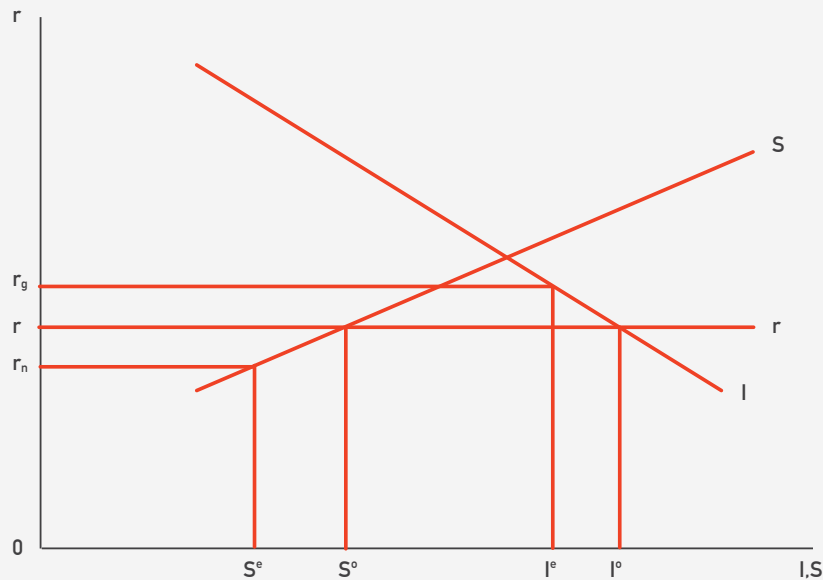
This tax shifting mechanism is illustrated in Figure 3, which depicts the market for savings and investment for an economy like Canada that is a small player in the international capital market. The figure shows the demand for investment by firms operating in Canada, labelled I , and the supply of domestic savings, labelled S . The rate of return in the international capital markets is fixed at r . In the absence of taxes, domestic investment would be and savings would be I^0 , leading to an inflow of capital from abroad in the amount $I^0 - S^0$. When a corporate tax is imposed that applies to the return on investment, the before-tax rate of return on investment rises to r_g to keep the after-tax return fixed at r , and investment falls to I^e . This reduction in investment and the increase in the rate of return required in investment will result in a fall in wage rates with the after-tax return on investment remaining unchanged. The difference between r_g and r reflects the corporate tax.

27 Arulampalam, Wiji, Michael Devereux, and Giorgia Maffini, 'The Direct Incidence of Corporate Income Tax on Wages,' *European Economic Review* 56, 2012, 1038-54.

28 Fuest, Clemens, Andreas Peichl, and Sebastian Siegloch, 'Do Higher Corporate Taxes Reduce Wages? Micro Evidence from Germany,' *IZA Discussion Paper no. 7390*, Bonn, Germany, 2013.

29 Liu, Li, and Rosanne Altshuler, 'Measuring the Burden of the Corporate Income Tax Under Imperfect Competition,' *National Tax Journal* 66, 2013, 215-38.

FIGURE 3
Capital Market



Similarly, a tax on personal saving will cause the after-tax return on saving to fall to r_n , and saving will fall to S^e . Both investment and saving will be discouraged. Now, if a dividend tax credit is given to shareholders on their domestic saving, this will undo part of the tax on saving causing r_n to rise thus partly extinguishing the personal tax on capital income. It will not provide any relief to corporations whose required rate of return remains at r_g .

There are three important caveats to this argument. First, Canada may have some influence over the price of some traded goods, and the rate of return on capital in Canada might vary from international rates of return because of country-specific risk differences across countries. Second, non-traded goods and services are shielded from international competition, so when the corporate tax increases the cost of investment, part of the response might be an increase in the price of non-traded products.

Third, and most important for our purposes, to the extent that corporate taxable income constitutes rents, the need to maintain internationally competitive rates of return on capital is unaffected. Rents are by definition returns over and above the normal market-determined rate of return. Except in the case where the rents are generated by a mobile form of capital, such as intellectual property, rents are immobile, so any decision by investors to move their capital elsewhere means forgoing after-tax rents. Thus, a tax on rents cannot be shifted and will be borne fully by the shareholders of the firm.

The extent of corporate tax shifting has consequences for corporate tax design. Any shifting of the burden of corporate taxation away from shareholders compromises the argument for the corporate tax based on redistributive considerations. In addition, it renders integrating the corporate and personal taxes pointless: if the corporate tax is not borne by shareholders, there is no need to compensate them for taxes withheld on their behalf. Providing credit to Canadian shareholders on dividends received from Canadian corporations and taxing capital gains preferentially simply reduce the personal tax on capital income. As well, using the corporate tax as a way of taxing foreign shareholders on income generated in Canada will be frustrated unless foreign governments provide tax credits for taxes paid in Canada.

To the extent that the corporate tax applies to rents, it will not affect the amount of corporate investment, and will therefore not be shifted to labour or the non-corporate sector. This could have a significant effect on the preferred corporate tax structure.

It should be emphasized that the above arguments about the incidence of the corporate tax are long-run effects. When the corporate tax rate changes, the shifting of the tax change occurs gradually as the amount of capital invested changes as a result of the tax change. While tax changes affect the incentive to undertake new investments, they do not affect investments that have been done in the past, so-called old capital. Old capital accumulated from past investments is

fixed, and any tax change imposed on it will be borne fully by its owners since they cannot avoid it by moving their capital elsewhere. Only as future capital investment, that is *new capital*, is affected will the shifting occur, and that will take considerable time.

The co-existence of old and new capital has been used to explain why capital is taxed at what some economists suggest are excessively high rates. Since at any time, the stock of old capital is much larger than the flow of new investments, governments will be tempted to increase the corporate tax rate (or impose capital taxes) to exploit old capital. This is called the *hold-up problem*, and constitutes a powerful political economy argument for taxing capital income, or for taxing corporate capital for that matter. At the same time, this can also justify phasing-in corporate tax reductions which, if perceived as creditable, will increase investment currently while reducing the windfall gain for returns to old capital.

Aside from the imperfections of the existing system, there are persuasive arguments against integration with the personal income tax.

5

Revisiting the Purpose of the Corporate Tax Challenges to the Backstop Rationale

The appropriate form of the corporate tax depends upon its rationale. As mentioned, the existing structure, inspired by the Carter Report, is designed to serve as a backstop or withholding device for the individual income tax by taxing income earned by the corporation on behalf of shareholders as it accrues. This prevents shareholders from sheltering their income from personal income taxation indefinitely by retaining and re-investing earnings in the corporation. Such earnings would accumulate tax-free if they were not taxed at the corporate level, and would only be subject to personal tax when taken out of the corporation as dividends or the sale of shares.

This view of the corporate tax implies that corporate tax revenues should be interpreted as taxes levied on behalf of shareholders, and shareholders should be given credit for taxes paid when they withdraw income from the corporation, either by taking dividends or by selling shares and realizing capital gains. That is, the corporate tax should be integrated with the personal tax by mechanisms that serve to prevent double taxation of shareholder income. In Canada, the integration is meant to be accomplished by the dividend tax credit on dividends received from Canadian corporations and by the preferential tax treatment of capital gains (though, as mentioned, this applies to all capital gains and not just those from Canadian shares).

Circumstances have changed since the time of the Carter Report. Most asset income is sheltered from taxation, whether by exemption or deferral, by holding assets in forms such as RRRPs, RRSPs and TFSAs, so the need to withhold is much reduced. As mentioned, Finance Canada estimates that by 2030, when the TFSA system is mature, over 90 percent of Canadians will be able to hold all of their financial assets in a tax-sheltered form.³⁰ We are not there yet, but since the introduction of TFSAs in 2009, we are moving in that direction. Immediately before 2009, 37 percent of adult tax filers reported at least some taxable interest and/or dividends. By 2011, that proportion had dropped to 29 percent. Presumably, a high proportion of unsheltered capital income accrues to higher-income persons who have exhausted their RRP/RRSP/TFSA contribution limits.

Moreover, as a withholding mechanism, the corporate tax is highly imperfect, as the Mintz Report documented. The dividend tax credit applies regardless of the amount of corporate taxes that have been paid, while no dividend tax credit is applicable to sheltered income, such as pension funds. In principle, this could be addressed by giving tax relief at the corporate level when dividends are paid out, for example, by a corporate tax credit.³¹

Aside from the imperfections of the existing system, there are persuasive arguments against integration with the personal income tax. One is that the after-corporate-tax return to shareholder investment is largely determined on international capital markets for a highly open economy like Canada. This implies, as we have noted, that a corporate tax imposed on shareholder equity income is in fact borne by others, particularly workers, at least in the long run. There is no need to compensate shareholders for a tax that they do not actually bear. A system of integration would then simply subsidize saving, or undo the personal taxation of capital income, rather than removing double taxation of shareholder income.

³⁰ Finance Canada (2013), 'Tax-Free Savings Accounts: A Profile of Account Holders,' in *Tax Expenditures and Evaluations 2012*, 31–45.

³¹ Arguably, the tax relief should not be reduced by tax credits like the SRED, since that would undo the purpose of these credits in providing an incentive for the firm to engage in R&D.

Related to this, since most taxable capital income occurs at higher income levels, high-income taxpayers will be those who benefit most from the dividend tax credit and the preferential treatment of capital gains. Integration therefore reduces the extent of redistribution implicit in the tax system, which has already been considerably eroded in recent years. The background studies for the Mirrlees Review argued convincingly that taxing the capital income of high-income persons is a desirable element of a progressive income tax system.³²

A remaining argument for withholding is that it allows taxation of foreign-owned corporations, whose non-resident shareholders would otherwise go untaxed in Canada. To the extent that such corporations are able to obtain a tax credit from their home country against their tax payments in Canada (as is true for US and most OECD corporations), the corporate tax effectively transfers tax revenues from foreign treasuries to the Canadian government. As such, it is a virtually costless source of tax revenues. Indeed, perhaps the desire to withhold against non-resident shareholders constitutes the strongest case for withholding given the size of foreign ownership of corporations with activities in Canada. For example, in 2010, 22.5 percent of operating profits in the corporate sector were under foreign control (Statistics Canada). The share was 40.5 percent in manufacturing and 47.1 percent in oil and gas. Of course, this presumes that corporate taxes applied to foreign-owned corporations will be credited by the tax system of the corporation's home country. Moreover, if the non-resident investor is exempt from tax in the home country (e.g., the investment comes from a pension fund) then the non-resident will be unable to undo the Canadian taxes paid through a foreign tax credit. If not, the Canadian corporate tax will simply discourage foreign investment in Canada.

Withholding corporate tax against foreign shareholders implies a tax based on shareholder income. Reforming the corporate tax to achieve other objectives would entail changing the definition of the base. A key open question is whether foreign governments would continue to allow the crediting of Canadian corporate taxes against home country tax liabilities if the Canadian tax system were significantly changed. If not, there would be trade-off between maintaining effective withholding against foreign shareholders and designing the corporate tax to achieve other objectives.

³² See Banks, James, and Peter Diamond, 'The Base for Direct Taxation,' in Stuart Adam, Timothy Besley, Richard Blundell, Stephen Bond, Robert Chote, Malcolm Gammie, Paul Johnson, Gareth Myles, and James Poterba (eds.), *Dimensions of Tax Design: The Mirrlees Review* (Oxford, Oxford University Press, 2010), 548–648.

Other Possible Rationales

Government benefit rationale

Another possible rationale for corporate taxation, mentioned above, is that it is a payment for benefits that corporations receive from government programs, such as education, training and infrastructure. There are a number of problems with adopting this as a basic rationale for the tax system. It would require applying the benefit principle of taxation selectively to corporations and not to individuals who also benefit from public services. Applying the benefit principle to individuals would lead to a tax system that does not redistribute, so would be unlikely to receive public support.

Moreover, even if desired, it would be difficult, if not impossible, to attribute benefits to corporations. This is particularly relevant for corporations since the benefits of things like education and infrastructure that accrue to corporations in the first instance may well be shifted through market forces to consumers and workers in the form of better products, lower prices and higher wages.

Redistribution rationale

The corporate tax might also be seen as means of wealth redistribution. Behind the argument is the fact that shareholders are disproportionately from higher-income groups, so taxing corporations is a form of progressive taxation. However, this argument presumes that the corporate tax is actually borne by corporate shareholders. As we have stressed above, it is likely that the corporate tax is shifted away from shareholders, and largely to workers, which defeats the redistributive purpose. Even if this were not the case, the corporate tax would be a blunt instrument for redistribution since it takes no account of the circumstances of each shareholder.

Rent tax rationale

A final objective, which has been the focus of the academic literature on corporate tax design for decades, is to design the corporate tax as a tax on rents or above-normal profits of corporations. As noted above, the rents generated by a corporation are simply the difference between its revenues and the full cost of all inputs used by the firm, including capital costs.

Taxing rents is attractive since such a tax would remove a disincentive to investment in the existing system. Under the current system, the corporate tax applies to income earned on the shareholder's behalf, including both the normal rate of return and any above-normal profits. For an investment project that just yields the normal return—a so-called marginal investment project—the corporate tax will claim some of the normal return, and the project will no longer be profitable for the corporation. Investment in marginal projects, and in projects yielding slightly above-normal profits, will be deterred. Under a rent tax this discouragement of investment is avoided because only above-normal profits are taxed. In addition to removing this disincentive to investment, a rent tax would also remove the differential treatment of different industries and types of capital that arises in the existing system because of imperfect CCA depreciation rates and differences in the reliance on debt finance by different corporations.

The case for designing the corporate tax as a tax on rents assumes greater relevance as:

- » international economic integration increases the importance of taxation efficiency;
- » capital income at the personal level becomes more sheltered;
- » returns to capital are largely determined on international capital markets;
- » corporate profits are subject to unexpected fluctuations; and
- » corporations become larger and more able to earn rents.

The latter is particularly true in industries like natural resources and financial services, whose importance in the Canadian economy are significant. Using the corporate tax system as a rent-collecting device is quite attractive since it can raise substantial revenues without generating large distortions in production, investment, employment and productivity growth. It is not surprising that taxing corporate rents has become an accepted goal in tax reform proposals from the Meade Report to the President's Advisory Panel, the Henry Report and the Mirrlees Review.

The main concern with moving to a rent tax system is that, since the tax base would be smaller than the current corporate tax base, rates would have to be higher to raise the same corporate tax+ revenue. A 2011 study found that

introducing an ACE system (a form of rent tax) in Canada would reduce the size of the federal corporate tax base by about 19 percent.³³ Since a flat tax rate is applied to the base, federal corporate tax revenues would also decrease by about 19 percent. To make the introduction of an ACE system revenue-neutral for the federal government, it would therefore need to be accompanied by an increase of the federal tax rate from the current 15 percent to approximately 18 percent, and an equivalent proportional increase in provincial taxes.

This would not be an insuperable problem since with a rent base, the pressures of corporate tax competition would be less. Moreover, a higher tax rate might be desirable, since the case for a significant proportion of rents accruing to the public sector is strong, particularly in the case of resource firms. In fact, as we shall discuss below, other recommended tax reforms would more than compensate for federal tax revenues lost as a result of shrinking the tax base, and would do so equitably.

On the other hand, increasing the corporate tax rate has some disadvantages. Higher corporate tax rates not only discourage investment and influence firm location, they also provide multinational firms with an incentive to shift profits to low-rate jurisdictions. Until the issue of profit-shifting is addressed by international action—no country can reasonably do so unilaterally—one might be cautious about raising corporate tax rates too much.³⁴ We have however seen that the corporate tax rate in Canada is already lower than our major trading partners, and among the lowest in the G-7.

Another concern is that some forms of rents are easily moved among jurisdictions, as might be the case with intellectual property rents. In this case, higher tax rates could drive out firms. These considerations suggest that requiring a major corporate tax reform to be revenue-neutral might be self-defeating. It might be more fruitful to consider tax reforms that are revenue-neutral in the broader sense rather than with respect to each tax type. If it is desirable to reform the corporate tax so that it is more efficient and productivity-enhancing thereby improving the real incomes of Canadians, it might be worth paying for it using other taxes such as increased consumption taxes.

33 de Mooij, Ruud, 'Tax Biases to Debt Finance: Assessing the Problem, Finding Solutions,' *IMF Staff Discussion Note*, SDN/11/11, Washington, 2011.

34 Canada is participating in ongoing multilateral efforts to constrain aggressive international tax planning that shift profits to relatively low tax countries. See Organization for Economic Cooperation and Development (OECD), *Addressing Base Erosion and Profit Shifting*, Paris, 2013.

To maintain the efficiency of a rent-based tax system, tax losses (negative taxes owing) would have to be treated symmetrically with positive tax liabilities, either through refundability of tax losses or by carrying them forward or backward with interest rates applied.³⁵ For firms that never make enough profits to use up tax losses that have been carried forward, refundability of accumulated losses would eventually have to apply. This is the most difficult problem with achieving efficiency in the corporate tax system since it would involve the government refunding tax losses to firms that wind up. This is not a problem that is unique to rent taxes. The President's Panel recognized this problem, but argued against refundability of tax losses on the grounds that it might open up opportunities for tax fraud. The refundability of tax losses could also provide an incentive for firms to report losses from other jurisdictions in Canada. Of course, in some cases firms that wind up with tax losses on their books will never have been taxable during their lifetime. That lessens the impact of not being able to refund their tax losses, even if that discourages risk by treating downside risk less favourably than upside.

Having said that, refundability of negative tax liabilities does exist in some jurisdictions. For example, in Norway, there are resource rent taxes in the petroleum and hydro power sectors that are designed to apply to above-normal profits. Negative tax liabilities under these taxes are refundable in the current year. The tax rate on above-normal profits is equal to 50 percent in the petroleum sector and 30 percent in the hydro power sector, so negative tax liabilities can be substantial.³⁶ This suggests that refundability should not necessarily be dismissed out of hand, and is worthy of further study with a view to avoiding the possible abuses that it may invite.

Finally, any rent tax that is adopted would have to comply with World Trade Organization agreements. In particular, border tax adjustments are not allowed for direct taxes, unlike with indirect taxes such as the GST/HST where exports are not taxed, but imports are. Thus, Canadian corporations selling abroad could not obtain preferential corporate tax treatment. This should not be a matter of concern. The existing corporate tax is free of border adjustments, and there is no particular reason to change that if the corporate tax base changes.

³⁵ For example, suppose a firm has taxes owing of -\$50,000, and the interest rate is 5 percent. If these losses are not immediately refunded, the implicit value of the tax loss would rise to $-\$50,000 \times 1.05$ the next year (since \$50,000 is worth $\$50,000 \times 1.05$ in one year's time), $-\$50,000 \times (1.05)^2$ the following year, and so on until the losses can be deducted against future profits.

³⁶ This information was obtained from Ministry of Finance of Norway.

A key problem with the existing system is that it creates a disincentive to investment because it taxes normal returns.

6

Additional Problems with the Corporate Tax

The central concern with the current corporate tax system is that it is based on the notion that the corporate tax should serve as a backstop for the personal income tax, but that may not be appropriate. However, there are a number of additional problems with the current system that have been well-documented, for example, by the Mintz Report. The main concerns are summarized below.

Investment Decisions

A key problem with the existing system is one outlined in the previous section – that it creates a disincentive to investment because it taxes normal returns.

In the absence of taxes, the amount of investment undertaken in a given sector will be such that the rate of return that shareholders earn on a corporation's least-profitable investment—the so-called *marginal investment*—will just equal the rate of return that can be earned elsewhere in the economy adjusted for whatever risk premium is associated with the investment. For example, the rate of return on the marginal investment would be the risk-adjusted interest rate, referred to as the normal return on investment adjusted for risk. Since the current system taxes the risk-adjusted normal return to capital, it increases the return required by the marginally profitable investment, and reduces investment levels.

A conventional measure of the extent to which the corporate tax discourages investment is the so-called *marginal effective tax rate (METR)*, which calculates the proportion of the return on marginal investments that go to taxes. METR calculations are routinely calculated by policy-makers, and often reported by Finance Canada.³⁷ METRs vary from firm to firm. Firms with higher debt financing, favourable CCA rates, and investment tax credits will have lower METRs. Deductions and tax credits are particularly attractive for firms engaged in R&D and non-renewable resource activities, so their METRs tend to be low, and can even be negative.

METRs should be interpreted with some caution, however, because there are certain features of firms that they do not capture. For firms that are in a loss position, the METR will be understated because they cannot take advantage of deductions for interest and CCA in the tax year in which they are entitled. Similarly, the METR will be underestimated for firms engaged in risky investments since the cost of risk is difficult to measure. As well, the METR is a long-run measure that applies to a firm that has achieved its desired size. It does not capture the adjustment costs that are associated with growing firms, nor does it capture the effect the tax system has on firm entry and exit, or the process of creative destruction that is an important source of innovation in the overall economy. At best, the METR give a rough indication of the order of magnitude of corporate tax distortions and how they vary across types of investments.

³⁷ See for example Finance Canada, *Tax Expenditures and Evaluations*, Ottawa, 2006, 37–57.

More generally, METRs do not indicate the extent to which corporate tax distortions influence actual investment. They simply indicate the extra taxes that must be paid on marginal investments. Indeed, the extent to which corporate taxes influence investment is an open question. There are many other factors that determine investment, including product demand, local regulations, availability of trained labour, and so on. Corporate tax reforms that reduce METRs eliminate one possible obstacle to investment.

While the METR reflects the disincentive imposed by the tax system for firms to increase their investments, they are less important for capturing two other effects of the corporate tax. One is the incentive for firms to locate in Canada rather than elsewhere. For this purpose, a more global measure such as the average effective tax rate (AETR) is more relevant. The AETR is simply the ratio of total taxes paid by a firm to its total profits. It can differ substantially from the METR since the AETR includes the taxes paid on infra-marginal investments and therefore rents, whereas the METR only applies to marginal ones.

The second is the incentive for firms to shift the profits they earn in one country to another without shifting actual production. As discussed further below, they can do this by manipulating where they report their profits via transfer pricing, financial transactions, or forms of creative accounting. For this purpose, the relevant measure of the corporate tax rate is the statutory tax rate. Countries with higher statutory tax rates are prone to outward profit-shifting, and that constitutes one of the most important factors contributing to international pressures to reduce corporate tax rates. Indeed, it may be one key reason why reductions in the corporate tax rate do not reduce tax revenues, even if they have little effect on real investment.

The average METR across all industries due to corporate taxation has been calculated by Chen and Mintz to be about 20 percent in recent years, near the OECD average, though it has been falling with the reduction in statutory tax rates.³⁸ Behind this average figure are METRs that vary considerably both by province and by industry. Chen and Mintz report METRs that range from 6.9 percent in NB to over 30 percent in BC and PEI. At the industry level, METRs tend to be lowest in resources (6.3 percent in forestry) and manufacturing (11.7

percent), and highest in services (25 percent in wholesale and retail trades, 24 percent in communications) and in construction (26 percent). These differences come about from differences in CCA rates, the proportion of investment financed by debt, and tax credits and other preferences.

Average effective tax rates by industry were recently estimated by Markle and Shackelford using firm-level financial statement data.³⁹ As with METRs, these vary considerably across industries. They found relatively high AETRs in retail trade (23 percent), followed by manufacturing (19 percent), construction (19 percent), finance (18 percent), transportation (15 percent), information and communications (14 percent) and mining (9 percent).

Distortions in investment take on special importance in light of disappointing recent investment performance in Ontario, where real investment per worker in non-residential capital in Ontario is only 60 percent of what it is in the USA (despite the fact that a strong Canadian dollar reduces the cost of capital imports). Canada as a whole has a better investment performance (although it still lags the USA), but this is largely driven by high investment rates in resource-rich provinces, as shown in Figure 4. Of course, METRs alone have little explanatory power for this, since METRs in the USA are comparable.

Chen and Mintz argue that investment can be encouraged and inter-industry inefficiencies reduced by broadening the base further and reducing rates so that both the mean and variance of METRs fall. In any case, these distortions in firms' investment incentives are often argued to contribute significantly to Canada's relatively weak labour productivity which has been growing at an average annual rate of 0.9 percent between 2001 and 2011 compared to 1.8 percent in the US and 1.5 percent on average in OECD countries.⁴⁰

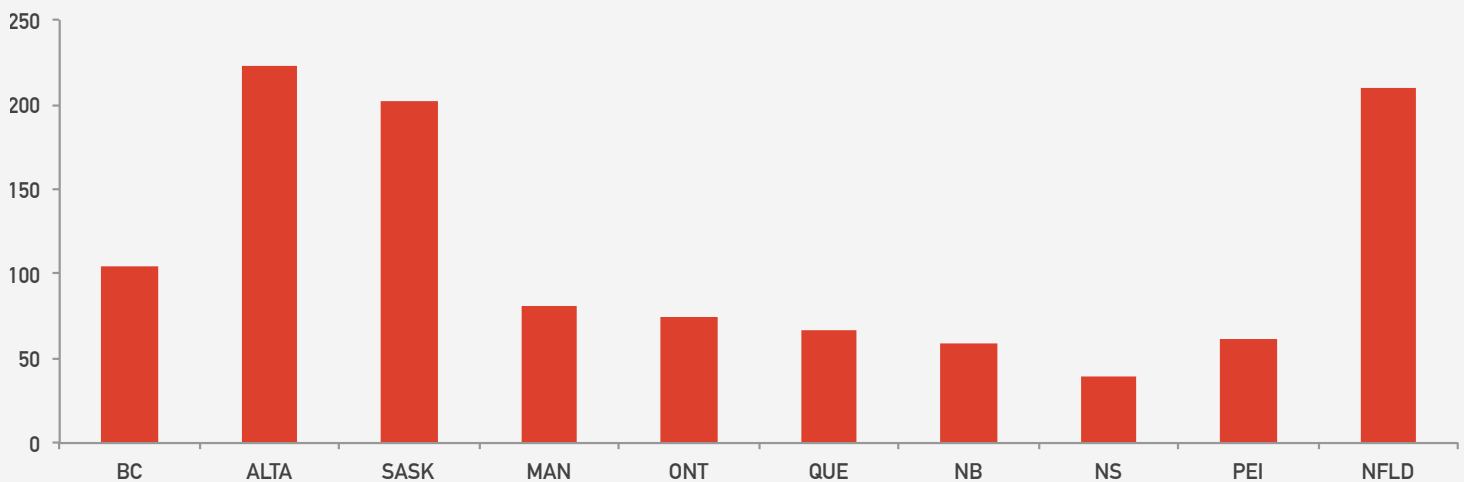
Leverage

A second problem with the existing corporate tax is that the deductibility of interest encourages debt financing. The cost of equity finance through retained earnings and new share issues is not deductible, so there is a tax incentive favouring debt over equity finance. In principle, this would not be the case if the corporate and personal tax were

³⁸ Data reported in this section come from Chen, Duanjie, and Jack Mintz, 'Federal-Provincial Business Tax Reforms: A Growth Agenda with Competitive Rates and a Neutral Treatment of Business Activities,' School of Public Policy Research Papers 4(1), January 2011, University of Calgary.

³⁹ Markle, Keven S., and Douglas A. Shackelford, 'Cross-Country Comparisons of Corporate Income Taxes,' *NBER Working Paper 16839*, February 2011, Cambridge, MA.
⁴⁰ Source: OECD Statistics Database. Labour productivity is measured by real GDP per hours worked.

FIGURE 4
Non-Residential Investment per Worker Relative to the Canadian Average, 2011



Canadian average = 100

Source: calculated using data taken from Dachis, B. and W. Robson, 'From Living Well to Working Well: Raising Canada's Performance in Non-Residential Investment,' C.D.Howe Institute E-brief, August 9, 2012.

perfectly integrated since the taxation of equity income at the corporate level would be undone. Both interest and share income would effectively be taxed at personal rates. However, perfect integration is unattainable. The consequence is an artificial incentive for leverage (debt relative to equity finance), and thus an increase in risk of bankruptcy of corporations.

The debt bias resulting from interest deductibility comes with some caveats. For firms that are in a loss position, interest deductibility is of limited value since their tax liabilities cannot be reduced. Some firms, like start-ups, may have limited access to debt so are unable to take advantage of interest deductibility. Indeed, this is a source of preferential treatment that favours large established firm and limits the innovation that comes with new entrants. Nonetheless, there is empirical evidence that the debt bias caused by interest deductibility is important. Recently, de Mooij surveyed 19 previous studies and found strong evidence that higher corporate tax rates lead to higher debt-asset ratios, although the size of the debt bias estimated varied substantially across studies.⁴¹

⁴¹ de Mooij, Ruud, 'The Tax Elasticity of Corporate Debt: A Synthesis of Size and Variations,' *IMF working Paper*, 11/95, Washington DC, 2011.

Profit-shifting

In addition to its effect on leverage, interest deductibility offers a potential vehicle for profit-shifting among jurisdictions, which increases pressure to set low corporate tax rates. Corporations operating in more than one jurisdiction have an incentive to borrow in high-tax rate jurisdictions to reduce their tax liability. Profits are effectively shifted from higher to lower tax jurisdictions. There is, however, a legal limit to the ability of firms to shift profits internationally in this way. Thin capitalization rules limit the deductibility of interest paid by Canadian resident corporations on borrowing from non-resident shareholders or affiliates. Profit-shifting can also occur via transfer pricing. Vertically integrated corporations that produce inputs for use in later stages of production will have an incentive to manipulate the value of intra-firm purchases to shift taxable income to lower-tax locations.⁴²

⁴² Personal income can be shifted among provinces as well, especially for higher income persons. They may be able to establish residency in a low-tax province (e.g., Alberta) by arranging to reside there on December 31 in the tax year. In addition, there are tax planning techniques that can be used to shift asset incomes to a low-tax province. For example, personal assets can be transferred into an inter vivos trust that is resident in Alberta and thereby being subject to the Alberta provincial tax rate. Empirical evidence of such personal income shifting across Canadian provinces can be found in Milligan, Kevin, and Michael Smart, 'The Devolution of the Revolution: Taxation of High Incomes in a Federation,' 2013, mimeo.

As recent high-profile cases in the UK showed, firms associated with brand names may establish residency in low-tax countries, and charge royalties to their operations in higher tax countries as a way of shifting profits to the former. Amazon, Google and Starbucks arranged to pay very little taxes in the UK using such a mechanism, which was apparently legal. Indeed, one company (Apple) even succeeded in avoiding residency in any country for some of its international operations. More generally, tax planning techniques involving country of residence can be used by all corporations to shift taxes among countries. Mitigating such opportunities for profit-shifting across countries requires international cooperation. OECD countries have recently adopted the Base Erosion and Profit Shifting action plan which identifies a number of measures to be adopted over the next two years that will limit possibilities for tax planning and profit-shifting by restricting transfer pricing practices and the use of interest deductions for loans between affiliates, among other things.⁴³

Profit shifting can also occur across provinces to take account of differential provincial corporate tax rates, over and above the incentive firms have to locate their business activities in low-tax provinces. This latter incentive is simply an outcome of tax competition and is a natural consequence of provinces being able to set their own corporate tax rates. It is a standard argument against the corporate tax being a provincial tax. Profit shifting is a different matter, and refers to firms shifting profits to low-tax jurisdictions independent of the location of economic activity.

The use of formula apportionment is meant to preclude profit shifting since the allocation of corporate taxable income is based on measures of economic activity, namely sales and payrolls. However, as Mintz and Smart have argued and as we discussed above, corporations operating in more than one province can and do arrange to shift their profits across provinces if they change their organizational form.⁴⁴ Since the corporate tax applies separately to each subsidiary of a corporation, if the firm sets up different subsidiaries in different provinces, it can arrange to shift its profits to low-tax provinces through transfer pricing or corporate borrowing arrangements. Such opportunities would not be available if corporate taxation were based on the consolidated accounts of corporations, as is the case in some jurisdictions, rather than being based separately on each subsidiary.

43 OECD, *Action Plan on Base Erosion and Profit Shifting*, 2013, Paris.

44 Mintz, Jack, and Smart, Michael, 'Income Shifting, Investment, and Tax Competition: Theory and Evidence from Provincial Taxation in Canada,' *Journal of Public Economics* 88, 2004, 1149–68.

New Firms

The corporate tax systematically discriminates against many new firms, growing firms, small firms and risky firms. It does this because these firms are often in a loss position, and their negative tax liabilities are not treated on a par with positive ones. Those that eventually become taxpaying can recoup their earlier tax losses, but without interest, while others never become taxpaying. In these circumstances, major downside risk is borne by the firms so risk-taking is discouraged. Larger firms are favoured since they can transfer tax losses to profitable parts of their operations. They can also take over tax-loss firms at a premium because they can offset the tax losses against profits they earn in other parts of the firm.

Finance Canada issued a report in 2010 exploring the possibility of adopting a formal loss relief system among members of corporate groups.⁴⁵ Under such a system, corporations with common ownership or common control could form a corporate group within which members with losses in any given year could transfer their losses to other members so as to reduce the overall corporate taxes of the corporate group. This could potentially mitigate some of the consequences of imperfect loss offsetting in the current system and encourage risk-taking. Various forms of loss transfer systems exist in many countries including the United States, the United Kingdom, Germany and France. Unfortunately, the federal government announced in the 2013 Budget that introducing a loss transfer system was no longer a priority.

This problem of unredeemed tax losses is to some extent addressed by the lower tax rates imposed on small corporations, and by other forms of preferential treatment, such as preferential R&D tax credit rates for CCPCs and the deferral by employees of taxable benefits arising from the exercise of stock options. However, low tax rates are of limited benefit to firms in a non-taxable position. As well, the small business tax rate might introduce other adverse incentives, such as providing an incentive to reclassify wage income as capital income (a problem that has proven to be significant in dual tax systems), discouraging small firms from growing, and encouraging businesses to split into multiple smaller and less efficient firms, as Chen and Mintz have argued.⁴⁶ Note however that, for larger firms with resources

45 Finance Canada (2010), 'The Taxation of Corporate Groups', Consultation Paper, Ottawa.

46 Chen, Duanjie, and Jack Mintz, 'Small Business Taxation: Revamping Incentives To Encourage Growth,' School of Public Policy Research Papers 4(7), May, 2011, University of Calgary.

for tax planning, the CRA accepts certain transactions that generate corporate loss offsetting.⁴⁷ Moreover, when a taxpayer sells shares of a small business corporation that generates a capital loss, this loss can be reclassified as a non-capital loss to offset other sources of ordinary income; hence, corporate loss offsetting can be obtained indirectly for small corporations.

The problems of small business could in principle be better addressed by improving loss-offsetting provisions, including through immediate refundability of negative tax liabilities. But governments have been unwilling to do this because of the tax avoidance opportunities associated with refundability, especially with respect to firms that never become profitable and go out of business without getting any tax credit for the costs they incurred. These include firms undertaking risky ventures, which typically have a high expected return but with high variance. It should be noted that the Allowable Business Investment Loss (ABIL) rule provides some form of loss refundability. Under the ABIL rule, 50 percent of a capital loss resulting from the disposition of shares of a corporation or a debt owed by a small corporation can be deducted from any type of personal income in the current year, and can be carried back three years and forward ten years.

In the absence of refundability of losses, the adverse effect on risk-taking could be mitigated by allowing interest payments to apply on tax losses carried forward, as recommended by the President's Panel. More generally, rather than providing preferential tax rates to small firms to promote job creation and growth, it might be preferable to use more direct incentives, such as employment tax credits as have been used in some US states, particularly if they are refundable. These might also help to address productivity concerns.

Innovation

These effects on risky and small firms have a bearing on the effect of the corporate tax on innovation, a key driver of productivity growth. Innovative activity often carries risk, so the fact that the corporate tax discriminates against risk-taking by not offering refundability of negative taxes discourages risk-taking. On the other hand, research and development (R&D) expenditures are treated favourably, both through the availability of the Scientific Research and

Experimental Development (SRED) tax credit and through rapid write-offs of such expenditures. At the same time, patent protection is available on innovation that encourages R&D, although the rents created by patents are subject to corporate tax, which blunts the incentive.

The SRED tax credit is by far the main government support program to research and innovation. It provides a basic tax credit of up to 20 percent of eligible R&D expenses, with the rate increasing to 35 percent for CCPCs on expenditures up to \$3 million per year. Eligible expenses include labour costs, materials and equipment costs. Despite the substantial government support for R&D, levels of R&D investment in Canada are relatively low, and this is usually seen as one of the main explanations for weak productivity growth. Expenditures on R&D as a share of GDP for G-7 countries are shown in Figure 5, next page. Canada ranks fifth in terms of total R&D expenditures and business R&D expenditures, far behind Japan and the United States.

Recently, two reports have made recommendations to address Canada's relatively weak innovation performance. The Jenkins report recommended reforming the SRED program by restricting the R&D credit to labour costs only, as a way to reduce the size of the program and lower the administrative and compliance costs of firms.⁴⁸ The report also recommended redirecting the cost savings to direct support measures targeted at small and medium firms. In its 2012 budget, the federal government followed the revenue raising part of the advice of the Jenkins report by removing capital expenditures from the SRED base as of 2014. As well, it reduced the general SRED investment tax credit rate from 20 to 15 percent. This could potentially lead to a reduction in the R&D activity undertaken in Canada

Pantaleo, Poschmann and Wilkie recommended the adoption of a reduced corporate tax rate for income generated by intellectual property.⁴⁹ According to their proposal, a reduced rate of 7.5 percent would apply to several types of incomes, derived either from patented or non-patented innovations, including incomes from the commercialization of innovations, from licensing rights, and from patent sales. Along with such a reform, the SRED program could be scaled back, or even eliminated

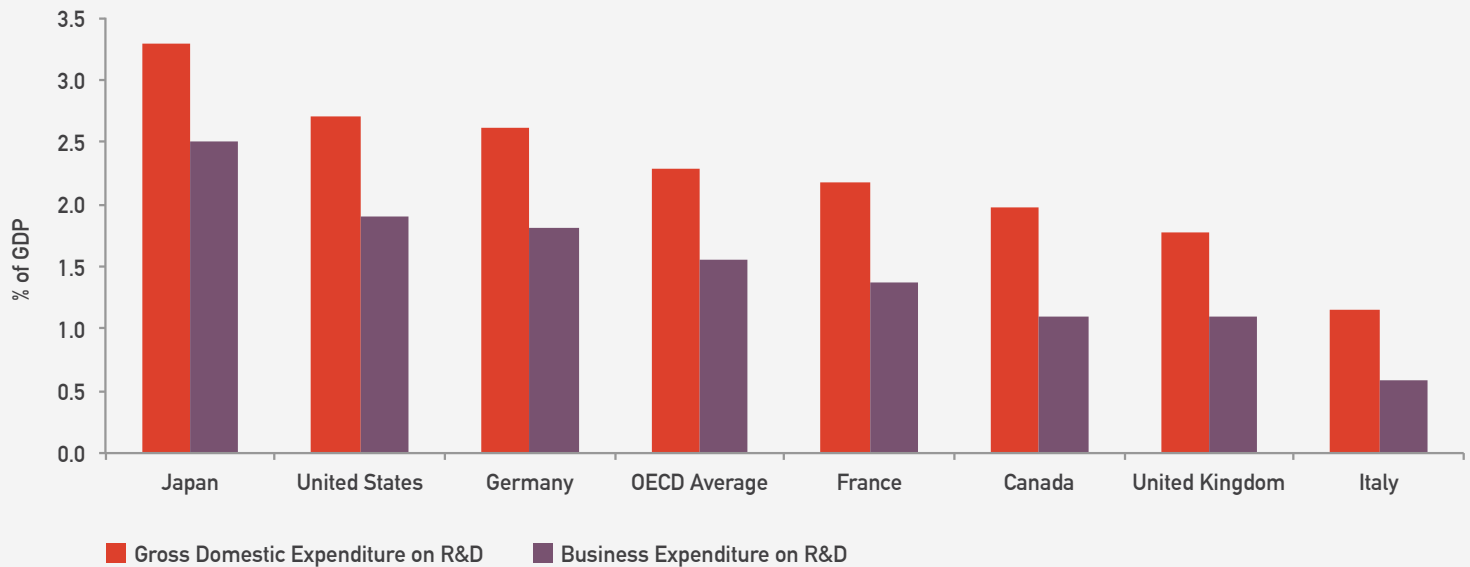
⁴⁸ *Innovation Canada: A Call to Action*, Expert Review Panel on Research and Development, Ottawa, 2011.

⁴⁹ Pantaleo, Nick, Finn Poschmann, and Scott Wilkie, 'Improving the Tax Treatment of Intellectual Property Income in Canada,' C.D. Howe Institute, Commentary no. 379, Toronto, 2013.

⁴⁷ See Canada Revenue Agency, *Income Tax Technical News No. 30*, June 10, 2004.

FIGURE 5

Expenditure on R&D as a Share of GDP (Average over the period from 2001 to 2011)



Source: OECD Main Science and Technology Indicators Database

altogether. Doing so would transform existing government support for innovation from a system that focuses on reducing the cost of conducting R&D to a system that would provide greater rewards to successful innovation. This would be in line with the approach taken in other OECD countries. In fact, preferential tax treatment for income associated with intellectual property exists in several countries including the United States and the United Kingdom. Note that patented inventions also benefit from the protection offered through the patent system itself.

It should also be noted that innovation is not the only source of productivity gain. Investment can itself also generate productivity improvements. In turn, changes to the tax system that lead to higher investment can therefore improve productivity. One way this can occur is through learning-by-doing, which refers to the gain in productivity associated with experience in working with capital. A second way is through embodied technical progress. New investment embodies the latest designs and techniques, and the more rapid the rate of investment, the more innovation there will be. Thus, encouraging investment, or removing the disincentives to invest, will spur productivity growth.

Tax Incentives

Finally, there are many distortions that have found their way into the corporate tax system, particularly to encourage specific activities. These measures are more a matter of tax policy than of corporate tax structure, but it is worth summarizing them since they detract from the efficiency, equity and regional neutrality of the corporate tax. As mentioned earlier, some of the most important federal tax credits in terms of forgone government revenues include the SRED tax credit, the Atlantic Investment Tax Credit, and tax credit for donations to charities and non-profit organizations. Other more specific measures include the Apprenticeship Job Creation Tax Credit, special tax credits to the logging and farming sectors, as well as tax credits for mineral exploration and development and flow-through share financing in the resource sector.

The provinces also have a significant number of corporate tax credits, more in number than the federal corporate tax, and these differ across provinces. They are typically used to encourage particular types of business activity, such as skills training, cultural production (e.g., films, book publishing), and environmentally friendly expenditures. In Ontario for example, there are tax credits for apprenticeship training, cooperative education, business research institutes, innovation, R&D, book publishing, computer animation and special effects, film and television, interactive digital media, production services, sound recording, political contributions,

brownfields financing, and electric vehicles, and a tax exemption for commercialization. Quebec has a unique tax incentive to encourage training, which was implemented using a payroll tax. Firms that engage in training are able to offset training costs against their payroll tax liabilities. For those that do not avoid payroll taxation, their tax payments go into a provincial training fund. The payroll tax rate for this purpose is set at 1%, and the scheme applies to firms with an annual payroll in excess of \$1million.

A more
transformative
approach that
would address
some of these
deficiencies of the
existing corporate
tax would be to
move to a rent tax.

7

Alternative Approaches

We now turn to some alternative approaches that have been advocated for reforming corporate taxation, and that address some of the above concerns. The approaches we present range from adjustments to the present system to more fundamental reform. They are based on proposals that have been made in the literature, some of which have been put into place in other countries.

Incremental Reform of the Current System

The simplest approach is to make incremental reforms to the current system to address its flaws without making structural changes to reflect the evolving nature of and rationale for the tax. The most prominent recent endorsement of this approach was the Mintz Report. The objective of the Mintz Report was to make the business tax system more efficient without sacrificing revenues. It took the broad structure of the tax as appropriate, reflecting its view that the main purpose of the corporate tax should continue to be as a backstop to the personal tax. In particular, its base should reflect income earned by corporations on behalf of their shareholders, and the corporate tax should be integrated with the personal tax.

However, the Report recognized that the business tax system has some major flaws. First, it discriminates among different industries, tending to favour manufacturing and resources relative to services, utilities and wholesale trade. Evidence for this was the differing METRs faced by different industries. Second, many Canadian industries face higher tax burdens than those in competing countries, especially the United States, as a consequence of the higher corporate tax rates at the time in Canada. Third, there are various profit-insensitive taxes that discourage investment, particularly in risky ventures. These include property taxes, sales taxes on business inputs and capital taxes. Finally, the system of integration of corporate and personal taxes is highly uneven and inadequate.

The Mintz Report suggested ways of making business taxes less discriminatory with respect to different types of businesses. Put simply, it proposed broadening the base while reducing the corporate tax rate to maintain international competitiveness. This would involve removing differential treatment of different industries, such as preferential CCA rates and tax credits, to make METRs more uniform across industries, while at the same time reducing the level of METRs by reducing tax rates. At the personal level, integration measures would be improved, and treatment of small corporations and unincorporated businesses harmonized. Interest deductibility would be retained. The lowering of tax rates is seen not only as a way to reduce METRs, but also as a way to attract investment to Canada. Some of the specific measures recommended by the Mintz report are summarized in Figure 6, next page.⁵⁰

⁵⁰ Technical Committee on Business Taxation, *Report*, Ottawa, 1997.

FIGURE 6

Selected measures proposed by the Technical Committee on Business Taxation (1997)

	SPECIFIC PROPOSALS	REFORMS IMPLEMENTED
Rates and specific provisions	Reducing the federal general tax rate from 28 percent to 20 percent, as well as the small business rate to an average of 12.5 percent	General rate progressively reduced from 28 percent in 2000 to 15 percent in 2012, and the small business rate reduced to 11 percent
	Eliminating the federal surtax	Surtax eliminated in 2008
	Reducing some of the accelerated capital cost allowance rates to better reflect true economic depreciation and improve the neutrality of the system	Several changes to CCA rates, often intended to provide specific incentives for investment, including an accelerated capital cost allowance for machinery and equipment in manufacturing introduced in 2007 and currently extended to 2015
	Lowering the SRED tax credit rate	Reduced SRED tax credit from 20 to 15 percent in 2012 Budget to be implemented by 2014
	Eliminating the SRED credit for capital assets that are not specifically designed for R&D	2012 Budget removed capital expenditures from SRED base
	Making the SRED credit fully refundable for small businesses	Now fully refundable for CCPCs with taxable income below the small business limit
	Reducing the write-off rates for development costs in resource industries	Elimination of the resource allowance and introduction of the full deductibility of royalties and mining taxes between 2003 and 2007 Investment tax credit for pre-production expenses phased out by the end of 2013 for exploration activities and by the end of 2015 for development activities
	Eliminating the immediate deduction of the full costs of property acquisition and major expansions in the mining sector	2013 Budget announced elimination of accelerated CCA for mining assets
	Eliminating the Atlantic Investment Tax Credit	Not implemented
	Adopting a system for transferring tax losses within corporate groups	Not implemented
Capital taxes	Harmonizing federal and provincial capital tax bases	Federal capital tax eliminated between 2004 and 2008
International taxation	Removing the interest deduction of Canadian taxpayers for investment in foreign affiliates	Not implemented
	Reducing the thin-capitalization ratio limiting interest deductibility (from a 3-to-1 to a 2-to-1 ratio)	Thin-capitalization ratio was lowered to 1.5
Integration measures	Make the dividend tax credit related to actual taxes paid by corporations	Not implemented
	Eliminating the lifetime capital gains exemption for sales of small business shares and farm properties	Not implemented, instead lifetime exemption increased to \$800,000 starting in 2014 and indexed for inflation in subsequent years
	Maintain partial inclusion of capital gains in taxable income	Inclusion rate kept at 50%
User fees	Reducing employer and employee EI contributions combined with experience-rating for employer contributions based on layoff experience	Significant decrease in premium rates between 1997 and 2008, but increases after 2011 Experience-rating not implemented
	Adopting environmental taxes to replace the federal fuel excise tax in a revenue-neutral manner	Not implemented
Federal-provincial harmonization	Adopting tax collection agreements with provinces who collected their own corporate tax	Corporate tax collection agreement between Ontario and the federal government effective in 2009
	Using a common neutral base at the federal and provincial levels and method for allocating corporate income among provinces	Considerable lack of harmonization of tax bases remains

This approach begs the question as to whether the corporate tax should continue to be viewed primarily as a device for backstopping the personal tax, especially given the growing extent to which shareholder income is sheltered from personal taxation so that withholding is unnecessary. It also overlooks the likelihood that in a country that is exposed to unfettered international capital flows, withholding by the corporate tax is counter-productive. The before-tax return to capital will have to increase to keep the after-tax return fixed at the internationally determined level. In these circumstances, a high corporate tax rate will naturally discourage investment in Canada, regardless of the existence of dividend tax credits.

Emphasis on the withholding role, which leads to designing the corporate tax as a tax on shareholder income, also neglects the fact that corporate income often includes both a normal rate of profit, comparable to what can be earned by holding bonds, and above-normal profits or rents. To the extent that this is the case, lowering the corporate tax rate reduces the potential for taxing rents, and taxing rents is an efficient (distortion-free) way of raising revenues.

While we are mainly concerned with corporate tax design, the issue of profit-insensitive taxes identified by the Mintz Report is also important. Three relevant profit-insensitive taxes can be identified. One is the provincial retail sales tax (RST) system. For those provinces that continue to apply RSTs at the retail level, a significant proportion of business inputs are liable to pay the tax. Bird and Smart estimated that over 40 percent of provincial RST revenues in Canada were effectively levied on business inputs.⁵¹ Firms that end up paying relatively large amounts of RST are discriminated against, especially with respect to foreign competitors. This problem is effectively resolved by replacing the RST with a Harmonized Sales Tax (HST), which ensures that taxes are purged from business inputs. (There may be other policy issues associated with replacing RSTs with HSTs, such as redistributive concerns, but that is another matter.)

Second, capital taxes that have been implemented by both provincial and federal governments apply regardless of the profits of firms. These taxes are tempting for governments to use because they apply to previously accumulated capital, which is the fruit of earlier investments. However, there is no apparent economic rationale for capital taxes, which

discourage future investment. In fact, capital taxes applied selectively to financial institutions might be seen as crude ways of getting at the high profitability of these corporations, that is, at their high rents.

Finally, there are business property taxes levied by local and in some cases provincial governments. To the extent that these reflect benefits of local services, they can be viewed as a cost of an input that is useful for doing business. Otherwise, they are tax liabilities that are independent of profits and discourage investment. There is no solid evidence of the relation between business property taxes and local public services.

The key message of this discussion of the traditional role of the corporate tax should be re-emphasized. A corporate tax based on shareholder income will necessarily discourage investment, and therefore growth and productivity. That is, it will necessarily have a positive METR. Moreover, given the difficulties in defining corporate shareholder income—especially the difficulties in choosing the correct rate of depreciation of capital—and the fact that different industries rely to differing extents on debt finance, the tax will inevitably discriminate among different industries. In principle, a system of perfect integration would undo that disincentive, but such a system is virtually impossible to implement in a highly open economy like Canada. The implication is that there will always be pressure to reduce corporate tax rates to reduce METRs. While this will serve to attract investment, it will have two adverse side effects. First, it will entail a forgoing of tax revenues from rents earned by corporations. Second, it will reduce the transfer of tax revenues from foreign treasuries obtained by foreign corporations operating in Canada, at least if Canadian corporate tax rates are reduced below those abroad.

⁵¹ Bird, Richard, and Michael Smart, "The Impact on Investment of Replacing a Retail Sales Tax by a Value-added Tax: Evidence from Canadian Experience," *National Tax Journal* 62, 2009, 591–609.

Comprehensive Business Income Tax

A second, more wide-ranging approach is to focus on addressing one of the most significant sources of inefficiency of the current corporate tax, interest deductibility. Eliminating interest deductibility turns the existing corporate tax based on shareholder income into a tax based on all income generated by corporate investment. This is referred to as a Comprehensive Business Income Tax (CBIT) and was one of the options considered by the Mirrlees Review background research.

The CBIT has two main advantages. One is that by eliminating interest deductibility, corporations are no longer encouraged to finance their investments by debt rather than equity, which increases the risk of bankruptcy and favours large firms relative to small ones. The second advantage is that by broadening the corporate tax base, the same revenue can be raised with lower tax rates. Lower corporate tax rates reduce the advantage firms have to locate their operations abroad and to shift profits earned locally abroad.

However, this base-broadening comes at a disadvantage. The tax applies to all income from corporate investments whether financed by debt or equity. This discourages investment for no good reason. Interest income is already taxable at the personal level, at least unless it is tax-sheltered, so taxing it at the corporate level constitutes double taxation. If there is a strong argument for keeping corporate tax rates low, that can be done without insisting on revenue-neutrality of corporate tax reforms. de Mooij and Devereux simulated the effects of various corporate tax reforms in EU countries and found that the adoption of a CBIT, if not accompanied by corporate tax rates reductions, would lead to lower welfare because of the negative effects on investment. However, if tax rates are lowered so as to make the reform revenue-neutral, the reform will generally have a positive welfare effect due to stronger investment incentives and inward profit shifting.⁵²

Rent Tax Approaches

A more transformative approach that would address some of these deficiencies of the existing corporate tax would be to move to a rent tax, as described in Section 5, above. This would eliminate disincentives to invest and the need to integrate, and would put corporations of different sizes, ages and riskiness on an equal footing. Some of the firms most disadvantaged by the current corporate tax are those most likely to deliver innovation. The base of a rent tax would be lower than the current corporate tax base, since normal corporate-source income would no longer be taxed.

To maintain the same amount of corporate tax revenue, the tax rate would have to rise. As just discussed, an increase in the corporate tax rate would have the disadvantage of encouraging outward profit-shifting, but it would not necessarily encourage firms to locate their actual production abroad since only rents would be taxed. In any case, there is no apparent requirement that a corporate tax reform be revenue-neutral. It may be more efficient to maintain corporate tax rates even when the base shrinks, and to obtain extra tax revenues elsewhere. Our recommendations below will address this issue.

Though a rent tax would be at a common rate everywhere and the same definition of the base would apply without discrimination by industry or region, it would raise different amounts of revenue from different industries. The potential for revenue-raising would be especially high in natural resources, and in highly concentrated industries, like financial services. These are the industries that generate proportionately more rents. This would give the federal government a legitimate source of revenues to fulfil its equalization commitment, a substantial proportion of which arises as a result of rent-generating industries in high-revenue-capacity provinces. More generally, a rent tax would apply to windfall profits (or losses) arising unexpectedly from exogenous price or demand shocks.

Rent taxes could take various forms. The following summarizes the main forms that have been proposed or used elsewhere.

⁵² de Mooij, Ruud, and Michael Devereux, 'An Applied Analysis of ACE and CBIT Reforms in the EU,' *International Tax and Public Finance* 18, 2011, 93-120.

Cash-flow tax

The purest and arguably the simplest would be a cash-flow tax as recommended by Meade Report. More recently it was recommended by the President's Advisory Tax Panel in the United States as part of their Growth and Investment Tax Plan, which was one of two alternative tax programs they proposed. The cash-flow tax base would be total revenues received in the tax year less total expenditures on the purchase inputs of all sorts, including current and capital inputs.⁵³ Though very easy to administer, a cash-flow corporate tax suffers from a telling political feasibility problem: it gives rise to negative tax liabilities for growing firms, and these would have to be refunded to maintain efficiency. Otherwise, firms' losses are treated less favourably than their gains, and risk-taking would be discouraged. In the quest to avoid this problem, several variants have been proposed that are equivalent to cash-flow taxes except for the timing of their tax liabilities. Hence, they are typically called *cash-flow-equivalent taxes*.

Capital account allowance (CAA) tax

The simplest form of cash-flow-equivalent tax would replace interest deductibility with a deduction for the cost of finance regardless of whether debt or equity finance is used. Equity finance includes finance provided by shareholders through retained earnings and new share sales. The tax base would include total revenues from sales less current costs less an allowance for capital cost that takes the following form:

- » All new investments would be put into a *capital account*.
- » Each year, new investment would be added to the capital account, and a prescribed proportion of the capital account would be deducted as depreciation.
- » The corporation's tax base would be reduced by this depreciation each tax year, as well as by a cost of finance calculated by applying a risk-free interest rate to the existing value of the capital account in that year.
- » If the firm is in a tax-loss position, it would take no depreciation deductions, and the value of the capital account would rise at the rate of interest.

⁵³ The Meade Report suggested two alternative cash-flow bases. One, the R-base, would apply only to real cash flows: revenues from the sale of goods and services less expenditures on current and capital inputs. The other, the R+F-base, would include both real and financial cash flows, and would capture rents from financial intermediation.

- » This process would continue until the firm ceased operations, at which time the firm would be given a tax credit based on the size of its remaining capital account.

Although it is not immediately apparent, this system is equivalent to one that allows the firm to carry forward tax losses at the risk-free interest rate. It has an METR of zero, so imposes taxes only on firms earning rents, or above-normal profits.⁵⁴

Note that the deduction for the cost of finance should be based on the risk-free interest rate. This is the discount rate applicable to the flow of tax deductions from the account. As long as the firm is confident that the government will honour future deductions, there is no risk in postponing them: the full value of the capital account will eventually be deducted with certainty.⁵⁵ On the other hand, if there were some uncertainty whether the government will abide by its promise to allow the capital account to be deducted, that is if there is *political risk*, then the interest deduction should be higher to reflect that uncertainty. For the CAA tax to be efficient, all costs that corporations incur must eventually give rise to a tax credit. If a firm winds up, the tax credit on any remaining capital-account balance must be fully refunded.

Note also that the rate of depreciation used can be arbitrary. In contrast to the current system, the fact that depreciation rates used for tax purposes will generally not reflect true economic depreciation of all capital assets will not lead to any distortion in firms' investment incentives. This is another important advantage of the CAA system.

Allowance for corporate equity (ACE) tax

The best-known cash-flow-equivalent tax system is the ACE proposed by the Institute for Fiscal Studies in the UK over two decades ago, and applied in some European countries. The ACE is similar to the current system, except it adds a deduction for corporate equity costs. Key elements of the ACE are:

- » The capital account would be defined in the same way as the CAA, above, and depreciation deductions are calculated in the same way.

⁵⁴ This efficiency property of the capital-account tax was shown by Boadway, Robin, and Neil Bruce, 'A General Proposition on the Design of a Neutral Business Tax', *Journal of Public Economics* 24, 1984, 231–39.

⁵⁵ This is the essence of the argument by Bond, Stephen R., and Michael P. Devereux, 'On the design of a neutral business tax under uncertainty,' *Journal of Public Economics* 58, 1995, 57–71.

» Instead of an interest deduction applying to the full value of the capital account, two separate deductions are allowed:

- »» One consists of ordinary interest payments as in the current system. In contrast to the CAA tax, the interest deduction will reflect any firm-specific risk premium included in the cost of finance.
- »» The other deduction applies the risk-free interest rate to the capital account less the amount of debt outstanding in the firm. This is the “allowance for corporate equity” that is responsible for the moniker ACE.

Although this system is slightly more complicated from an accounting point of view than the previous ones, it is nonetheless still neutral with respect to investment.⁵⁶ It has the advantage that the transition from the current system is relatively smooth. The ACE tax has recently been recommended by the Mirrlees Review and by the Institut d’Economia de Barcelona in Spain.⁵⁷

There are a few studies that examined the impact of introducing ACE systems in other countries. For example, Klemm has shown that the introduction of a partial ACE system in Brazil was followed by an increase in investment, although it is not clear whether higher investment was due to the reform of the tax structure or to lower tax rates.⁵⁸ Panteghini, Parisi and Pighetti as well as Princen have studied the effects of introducing ACE systems on corporate financing decisions in Italy and Belgium and found that it led to a significant reduction in firms’ leverage and therefore in default risk.⁵⁹

Resource rent tax (RRT)

The Henry report studied the Australian tax system. Although it did not advocate wholesale reform of the corporate tax, it did make some recommendations for simplifying the system, and advocated further study of the ACE.

It recommended a federal rent-based tax for the mining sector, called an RRT. The RRT is essentially a cash-flow tax except that cash flows are only taxed once a given rate of return has been reached. Put differently, rather than

including cash flows in the tax base as they occur, the RRT postpones some of them until the future, but cumulates postponed cash flows at the risk-free interest rate. The CAA tax, in contrast, postpones some deductions for capital costs, but carries forward unused deductions at the risk-free interest rate. Like a CAA tax and an ACE tax, the RRT is neutral with respect to investment.⁶⁰ Despite the vociferous objections of the mining industry, the RRT was enacted at a rate of 30 percent.⁶¹ Versions of the RRT have also been used in mining industries in some developing countries. There is no reason, in principle, why the tax form could not apply to all corporations.⁶²

Destination-based cash-flow tax

This variant of the cash-flow tax was considered by Auerbach, Devereux and Simpson in their background study for the Mirrlees Review as an option for avoiding some of the distortions of the existing system. They classified corporate tax distortions into three categories:

1. those that affect how much to invest;
2. those that affect where to invest; and
3. those that affect where to locate profits through profit shifting.

Taxes that make the METR zero, like the cash-flow tax, eliminate the first distortion, but not necessarily the second and third. The METR determines the burden of taxation on the last unit of investment. The second depends on the average tax rate, which reflects the taxes that will apply on all investments in a new location. The third depends on the statutory tax rate. Moreover, taxing corporate profits at source (i.e., where the profits are generated by investment) encourages firms to locate their investments where tax rates are lower.

To avoid the incentive to locate investments elsewhere, and to reduce the incentive for profit-shifting, Auerbach et al recommended imposing the cash-flow tax on a destination basis, that is, where firm sales are actually made. To

56 This has been shown by Bond, Stephen R., and Michael P. Devereux, ‘Generalised R-based and S-based Taxes under Uncertainty,’ *Journal of Public Economics* 87, 2003, 1291–311.

57 Institut d’Economia de Barcelona, Tax Reform, IEB Report 2/2013.

58 Klemm, Alexander, ‘Allowances for Corporate Equity in Practice,’ *CESifo Economic Studies* 53, 2007, 229–262.

59 Panteghini, Paolo, Maria Laura Parisi, and Francesca Pighetti, ‘Italy’s ACE Tax and its Effect on Firm’s Leverage,’ *CESifo Working Paper no. 3869*, Munich, 2012; Princen, Savina, ‘Taxes Do Affect Corporate Financing Decisions: The Case of Belgium ACE,’ *CESifo Working Paper no. 3713*, Munich, 2012.

60 Technically, neutrality is only preserved if projects whose cumulated cash flows never reach zero receive tax refunds. In practice, this might not be the case unless losing projects within a firm can be offset against gains elsewhere.

61 The RRT co-exists with state taxes on mining. One unfortunate structural feature of the RRT is that firms can deduct state mining royalties against the RRT. This provides an incentive for states to increase their royalty rates as a way of transferring revenues from the federal treasury.

62 Mintz and Chen have recently advocated rent taxation for Canadian resource industries, although they focus on provincial taxes and do not specify the RRT form. See Mintz, J., and D. Chen, ‘Capturing Economic Rents from Resources through Royalties and Taxes,’ *School of Public Policy Research Papers* 5(30), (October, 2012), University of Calgary.

accomplish this, the cash-flow tax would be accompanied by border tax adjustments, much like the GST. Products imported by the corporation would be taxed, and those exported would be deducted from the tax base. There are, however, practical problems with such a system. One is that as mentioned World Trade Organization rules permit border tax adjustments for sales taxes like the GST, but not for direct taxes. As well, such a tax would compromise the ability of the government to withhold corporate taxes from foreign multinational corporations operating in Canada.

Rent Tax – Additional Considerations

It is worth mentioning some other features of rent taxation that are relevant for policy purposes.

1. Because they use cash flows of firms, they are relatively simple to implement. There is no need to impute capital costs as in the current system, and the tax is inflation-proof in the sense that it is neutral even if without any inflation indexing. Cash-flow equivalent tax systems are slightly more complicated than pure cash-flow systems, but they are much simpler and less information-demanding than the current system. They are based on cash rather than accrual accounting, and do not require any information on true depreciation. That is, they remain neutral whatever depreciation rates are used.
2. As with any tax, there are opportunities for avoidance. For example, opportunities for international profit-shifting still exist and will be greater the higher is the statutory tax rate. In addition, there may be an incentive for small business owners to transform labour income into capital income by paying themselves out of profits rather than paying themselves a salary, which gets taxed at the personal rate, and deducting the salary as a cost against corporate income. At the same time, rent taxation reduces the incentive to locate investments abroad, since only rents are taxed and not the return to capital and rents are generally location-specific with some exceptions (e.g., intellectual property rents).
3. There is a risk that foreign governments will not continue to allow foreign tax credits based on cash-flow corporate taxes being paid in Canada by foreign firms, given that the Canadian tax system would then be different from theirs. This might be mitigated by adopting the ACE form of tax whereby interest deductions continue to be allowed. The use of the ACE might also ease the transition since the

reform of the tax would essentially only entail adding a deduction for corporate equity costs, and perhaps increasing the corporate tax rate to maintain revenues.

4. Finally, there is the issue of whether a rent tax needs to be integrated with the personal tax. This raises subtle issues. Integration might be called for to the extent that rents are taxed at the personal level. For TFSA-type assets, capital income is excluded from the tax base, so rents—which are part of capital income along with the normal return on capital—will not be taxed. However, in the case of RRSP/RPP-type assets, rents can in part be taxed. That is because when these assets are cashed in, both principal and the cumulative return are taxed, and the latter can include rents either as dividends or capital gains. In principle, one could argue in favor of integration, though in practice that would be administratively difficult.

Abolish the Corporate Tax?

A more radical reform for the USA proposed by Fehr, Kambhampati, Jokisch and Kotlikoff is to abolish the corporate tax.⁶³ This would emphatically eliminate any inefficiencies attributable to the corporate tax, including the tendency to discourage investment and encourage debt-financing. The proposal might be further attractive in the US context because the corporate tax there has not been designed to be a withholding device against shareholders' income. For example, a dividend tax credit has not been part of the tax system.

This efficiency benefit would come at a substantial cost in terms of tax revenue forgone. The same efficiency gains can be achieved without sacrificing all revenues by designing the corporate tax to be a tax on rents. We would therefore rule it out as a desirable tax reform.

Further Issues

The Transition

Large tax reforms can impose retroactive effects on individuals and firms that have already made some irreversible decisions before the tax change is implemented. In the case of corporate tax reform, there will be an existing capital stock that was accumulated when the old tax

⁶³ Fehr, Hans, Ashwin Kambhampati, Sabine Jokisch, and Laurence Kotlikoff, 'Simulating the Elimination of the US Corporate Income Tax,' NBER Working Paper No. 19757, 2013.

system was in place, and is being depreciated according to the old rules. To minimize this, one could imagine gradual transitions to the new system. For example, an ACE could gradually introduce a deduction for equity finance. Alternatively, one could treat all old capital under the old rules, and apply the ACE only to new investments.

Small Business Harmonization

Another issue is to ensure that any reform harmonizes the treatment of Canadian Controlled Private Corporations (CCPCs) with both large corporations and unincorporated businesses. One does not want the tax system to influence the decision of firms to incorporate or to grow into large corporations. This is a complex area that involves consideration of the incentives for small firms to incorporate and to invest, as well as incentives for financial investments to be treated on a par with real ones. In principle, rent tax systems can apply to firms of all sizes.

The Mirrlees Review explicitly argued for an ACE system that applies to all businesses, including personal (unincorporated) businesses and partnerships. This would effectively shelter normal returns to personal businesses from taxation, and put their treatment on a par with RRP and RRSP savings vehicles. Two issues arise with this. One is that if there are limits to the amount of saving that can be sheltered in private savings accounts, higher-income persons will have an incentive to divert funds to personal businesses. To avoid this, ACE treatment of personal businesses would need to be restricted to active business income. Another is that there might be an incentive for firms to incorporate in order to take advantage of the small business tax rate rather than being taxed at the personal tax rate. This would influence the choice of the small business tax rate.

Sectoral Issues

Some industries might deserve special attention. One is the financial sector, which was singled out for special attention by the Mirrlees Review. Part of the problem is that there is some ambiguity as to whether financial services are consumption or investment services. As well, the financial industry might be one where rents are significant, a feature that both Mirrlees and Meade emphasized. There are currently a number of special provisions that apply to the financial services sector and that are necessary because of the particular nature of their activities. For example, banks can deduct from taxable income reserves that are put aside to cover future loan losses. Life insurance companies can

deduct reserves that will serve to cover future claims. These measures tend to postpone tax liabilities. Financial services firms are subject to mark-to-market rules for establishing their current taxable income. Under these rules, changes in the current market valuation of financial assets are included in current income for tax purposes even if the firms are not disposing of these assets in the current year. Financial institutions are also subject to a tax of 1.25 percent of taxable capital used in Canada in excess of \$1 billion, even though the general federal capital tax has been abolished some time ago.

The other industry requiring special attention is the resource sector, where rents are substantial. Here one runs into the issue of the division of rents between the provincial and federal governments, which is obviously contentious, as well as the issue of regional equity. The existing corporate tax already includes resource rents as part of the corporate income tax base, and moving to a rent tax would not change that.

International Profit-Shifting

International profit-shifting is a problem that plagues all countries, and is a difficult one to address, although ensuring that the CRA has sufficient resources to address the issue is important. One possibility that has been explored in the European Union is to consider using a common consolidated corporate income tax base across countries. Another possibility is to apply the technique of formula apportionment to allocate the profits of international corporations to Canada and abroad. While this could be pursued unilaterally, it might best be taken up jointly with other OECD countries. In any case, there is little reason to believe that the possibility of profit-shifting is fundamentally different under rent-based taxes than under the existing system. In either case, higher statutory tax rates increase the incentive for profit-shifting.

The Federal-Provincial Dimension

Standard fiscal federalism principles of tax assignment would argue against provincial corporate taxes on efficiency grounds. The tax base is very mobile, and provincial corporate taxes can cause capital investment to be allocated inefficiently across the federation. This can be an unintentional consequence of differential provincial corporate tax rates, deductions and credits, but it can also be a consequence of intentional use of corporate tax incentives to attract business activity from other provinces, so-called beggar-thy-neighbor policies.

On efficiency grounds, having a single fully harmonized corporate tax system across the federation would be desirable, but this would come at the cost of reduced provincial autonomy. If the corporate taxation is viewed as a rent-collecting device (as well as a withholding tax on non-residents), the value of provincial autonomy is not clear. Its main use seems to be as an instrument for pursuing provincial industrial and regional development policies, partly at the expense of other provinces. In fact, the provinces impose significantly more specific tax credits than the federal government does, and many of them seem to be devoted to attract particular types of business investment in the province, some of them from other provinces.

Since provinces are constitutionally empowered to determine their own corporate income tax bases, they would have to agree to follow any effort to reform the federal corporate tax into a rent tax. Without provincial agreement, a unilateral federal reform could lead to less harmonization of federal and provincial corporate tax policy. Reforming the corporate tax base into a tax on economic rents could be combined with greater centralization of corporate tax policy and possibly the adoption of a formal rules-based corporate tax revenue-sharing system with the provinces, analogous to the HST. Along these lines, Tremblay has suggested uploading the corporate tax to the federal government, and accompanying it with a formula-based revenue-sharing arrangement so that the provinces continue to get a share of the revenue.⁶⁴

⁶⁴ See Tremblay, Jean-François, "Fiscal Problems, Taxation Solutions: Options for Reforming Canada's Tax and Transfer System," Mowat Centre for Policy Innovation, School of Public Policy and Governance, University of Toronto, 2012.

The appropriate base for the corporate tax is not shareholder income, but only that portion of shareholder income that represents above-normal profits.

8

Recommendations

The existing Canadian corporate tax system is mainly designed on the premise that the tax serves a withholding role for the personal tax. It is meant to prevent shareholders from sheltering their income free from dividend and capital gains taxation within the corporation by taxing all shareholder income at source. In recognition of that, shareholders are given some credit for corporate taxes paid on their behalf by the dividend tax credit and preferential taxation of capital gains. It also withholds against shareholders of foreign corporations, many of whom obtain some credit from their home governments for Canadian corporate taxes paid.

However, this rationale, which goes back to the Carter Report of 1966, is largely outdated for two reasons. First, most Canadian taxpayers can shelter capital income from personal tax so there is no need to withhold.

Second, in the highly integrated international capital markets of today's global economy, Canadian policies have limited influence on rates of return on capital. A corporate tax on capital income in Canada will discourage investment in Canada and end up being borne by labour. If the corporate tax is not actually borne by Canadian shareholders, no purpose is served by integration. Ultimately, integration serves as a subsidy on the capital income earned by high-income taxpayers, since they are mainly the ones whose dividends and capital gains are being taxed.

It could be argued that while international capital markets determine the rate of return that large corporations must earn, this is less true for small corporations whose owners do not rely on globalized capital markets. While there may be some prima facie merit in this argument, it is not completely convincing. Even if owners of small businesses rely on their own finance, the return they expect, and could earn on their funds elsewhere, is indirectly influenced by market-wide returns which depend on international markets. In the longer run, one would expect rates of return to be related to those on other investments. Of course, the fact that Canadian rates of return are heavily influenced by international ones does not rule out the possibility that they may be subject to a country-specific risk premium reflecting local conditions. As well, the tax treatment of small business owners should take account of the fact that the choice between incorporating and remaining an unincorporated business can be influenced by taxes.

These considerations lead us to conclude that the appropriate base for the corporate tax is not shareholder income, but only that portion of shareholder income that represents above-normal profits, or rents. Such a tax would be an efficient source of tax revenues in the sense that it would impose no distortion. Rent-based corporate taxes have been implemented in other jurisdictions. In some cases, such as Australia, this has been limited to the resource sector. Some Canadian provinces apply profits taxation to the mineral industry and to parts of the oil and gas industry, and these bear some resemblance to rent taxes.

The change from the current corporate tax to one based on rents does not come without some downsides. The tax base under a rent tax would be smaller than the current system since normal capital income of shareholders is no longer included. That means that less revenue would be raised if the tax rates were unchanged. One could increase the corporate tax rate to maintain

revenue-neutrality, but that would encourage some profit-shifting, so some revenue would be lost. Profit-shifting could be reduced if there were international agreement to adopt a form of international formula apportionment, although this seems unlikely in the current environment. However, there is a possibility that the continuing effort of the OECD to find ways of combatting international tax-shifting will eventually bear some fruit, in which case pressures to maintain low corporate tax rates will wane.

Our main policy recommendation is therefore to reform the corporate tax to one whose base reflects rents. As we have seen, there are various ways to do this.

- » The simplest one is the cash-flow tax, but it would require refundability of all losses, which would be difficult to do politically and could open opportunities for fraud, analogous to the fraudulent schemes that have arisen with some VAT systems.
- » Refundability of losses can be largely avoided (except for firms that wind up) by the CAA system that effectively carries tax losses forward with interest. The CAA system is simple and flexible, and avoids all the difficulties of accounting for capital costs that hamper the existing system.
- » A less dramatic change that would make the transition easier would be the ACE, which would add a deduction for the cost of equity finance to the existing system. It might also be similar enough to the existing system that foreign governments would not balk at continuing to give foreign tax credits to their corporations operating in Canada.

The same tax rules could apply to all businesses, including small corporations and unincorporated businesses. There is an additional difficulty with small businesses in that they have greater susceptibility to permanent tax losses. There is a constant turnover of small firms, which is the lifeblood of an innovative economy. Firms who enter with new ideas and turn out not to be successful will wind up before having been able to deduct all their costs of investment for tax purposes. That will be the case under any tax system that does not offer full refundability. For a rent tax to be fully neutral, tax losses must eventually be refunded. For firms that wind up their operations, there are no future profits against which tax losses can be offset, so to maintain efficiency their losses would have to be refunded. Otherwise, the tax system would discourage risk-taking since the tax applies disproportionately to upside risk relative to downside. This is a difficult problem since governments are reluctant to

give tax refunds to firms going out of business. The problem can be mitigated by maintaining a lower tax rate for small businesses or by allowing tax losses to be used by firms that take over those that are winding up.

Although shifting to a rent tax is a substantial change in its own right, there are a number of related reforms that could be considered at the same time. These reforms are motivated by two main considerations. One is the desire to offset the loss in tax revenues that moving to a rent tax would entail. Despite the fact that a rent tax should stimulate investment thereby generating tax revenues, the reduction in the size of the corporate tax base would likely result in a net loss of revenues. The other concerns the issue of integration. Should the dividend tax credit and preferential capital gains tax treatment continue to be given if the corporate tax no longer applies to normal capital income? We offer two broad approaches for dealing with these issues.

Option 1: Eliminate Corporate and Personal Tax Integration

This is our preferred option. Removing integration from the tax system entails eliminating both the dividend tax credit and the preferential treatment of capital gains on corporate shares.

While an argument can be made that in principle, credit ought to be given to shareholders in whose hands rents are eventually taxed for taxes paid at the corporate level, this would have to be applied consistently to all shareholders. That is, it would mean that credit is given not only to persons receiving shareholder income in taxable form, but also to those who receive capital income from tax-sheltered RRSP and RRP assets, since ultimately the rents on these assets are taxed on withdrawal. While it might be feasible to give a dividend tax credit and to reduce the amount of cumulated capital gains subject to taxation on sheltered assets, such a system is not in place now and would be administratively cumbersome to introduce it, especially for capital gains. Moreover, a dividend tax credit would be a very crude and imperfect way of crediting for corporate rent taxes paid since there is no close relation between dividends corporations pay and the rents they earn. This is especially so when the corporate tax applies only to rents, since dividends include both a normal rate of return on investment—which has not been taxed—and rents.

The preferential tax treatment of capital gains is more complicated. As mentioned, it serves to give some relief not only for corporate taxes but also for the fact that a portion of capital gains simply reflect changes in inflation rather than real changes in asset values. But the argument for giving preferential treatment to capital gains to index for inflation is not convincing. Other forms of returns on savings, such as interest, are not indexed for inflation, and doing so would add complexity to the tax system. Moreover, capital gains already enjoy preferential tax treatment by virtue of the fact that they are only taxed on realization. As well, preferential treatment of capital gains provides an incentive for taxpayers to structure their assets so that returns take the form of capital gains rather than, say, interest or dividends. On balance, the general case for preferential treatment of capital gains is not convincing. And, the argument for doing so for corporate shares on integration grounds is not compelling either, especially since it would entail treating corporate shares differently from other assets. Therefore, we recommend eliminating both the dividend tax credit and the preferential tax treatment of capital gains. Those most affected by this would be the highest income groups who have exhausted their options to shelter savings from taxation, and this would contribute to the fairness of the overall tax system.

Eliminating the dividend tax credit and the preferential taxation of capital gains would be controversial, and those affected would argue that it reduces their incentive to save. However, as we have argued, the case for the dividend tax credit is weak to the extent that corporate taxes are shifted away from capital income, as economists believe to be the case and evidence tends to support. The reform would both be progressive from a redistribution point of view and would save revenue, so would reduce the loss in tax revenue from the reform of the tax base. Note the important point that this proposal applies only to the 50 percent inclusion rate for capital gains. It does not apply to the other special capital gains provisions such as the lifetime exemption for owners of farming and fishing firms and small business corporations, the deemed realization of capital gains on death or emigration, the exemption of capital gains on gifts of corporate shares, or the inclusion of capital gains on realization rather than accrual. These measures serve policy purposes other than integration.

Another measure that could reduce the revenue cost of the corporate tax reform we are proposing, and that would be sensible in its own right, would be to eliminate the deduction given to resource firms for provincial resource taxes and royalties. This serves no good economic purpose and also potentially distorts provincial decision-making. It reduces the perceived cost of resource taxation to the provinces, since part of the cost of increasing provincial resource tax rates is borne by the federal government whose income tax base may fall when provincial taxes increase. In fact, provincial resource regimes, including royalties on oil and gas, increasingly take the form of profit taxes, and some now have features of rent taxation. That means that federal and provincial corporate taxes and provincial resource taxes are taxing similar bases.

When royalties were based on production and could be regarded as the price that firms paid for resource inputs, a case could be made that they should be deductible. However, once provincial resource taxes take the form of profit taxes, that rationale no longer applies. There is no guiding principle in support of deductibility when taxes of different levels of government apply to the same base. For example, provincial corporate taxes are not deductible from the federal corporate tax base, and the same applies for provincial personal taxes. The issue is really what share of revenues each tax should take when they simultaneously apply to the same base. Viewed this way, deductibility of resource taxes is effectively a transfer of federal tax revenues to provincial governments. Just like corporate taxes are not deductible from provincial resource taxes, there is no compelling case for the reverse. Our recommendation is that the deductibility of resource taxation from corporate taxable income be eliminated.⁶⁵

While rent taxes are touted as being efficient because they do not discourage investment, there is one important exception to this. Rents generated from intellectual property, unlike those from natural resources or locational advantage, are mobile internationally. Once a discovery is made, the exploitation of the rents on that discovery can be located abroad to avoid taxes. An argument could be made, following Pantaleo, Poschmann and Wilkie, that corporate profits on intellectual property should be treated

⁶⁵ There are other arguments rooted in the economics of equalization for eliminating deductibility of provincial resource revenues. The latter are the largest source of fiscal imbalance in the Canadian federation, which the federal government is obliged to address through the equalization system. However, its ability to do so is severely compromised by not having dedicated access to natural resource revenues. Resource revenue deductibility exacerbates this problem.

favourably, especially if the rights to the intellectual property are retained and commercialized in Canada. In addition to addressing profit-shifting possibilities, this would provide an incentive to innovate.

Some calculations give a rough-and-ready indication of the overall federal tax revenue implications of our proposals, assuming the corporate tax rates remain unchanged. In 2011, federal corporate tax revenues were about \$32.8 billion.⁶⁶ According to the estimate of de Mooij discussed earlier, moving to an ACE in Canada would reduce tax revenues by 19 percent of that, or \$6.2 billion (roughly one percentage point of GST). In that same year, the revenue cost of the dividend tax credit was \$4.3 billion,⁶⁷ or about 2/3 of the revenue loss from narrowing the base. Therefore, moving the corporate tax to an ACE tax and eliminating the dividend tax credit would leave the federal government with about \$2 billion less revenue, which is less than one-half of one percentage point of GST revenue (or less than one-tenth of current GST revenues).

Eliminating the preferential treatment of capital gains would yield \$4.2 billion, more than making up for lost revenues related to the transition to the ACE. Further revenue gains would be obtained from the elimination of deductibility of provincial resource taxes. While no estimates are published by Finance Canada, the cost of the resource allowance in 2006, which the deductibility of resource taxes replaced, was over \$600 million. The replacement of the resource allowance with deductibility of resource taxes was expected to be somewhat more costly to the federal government. We can then assume that the revenue saved by this reform would then be at least \$600 million. Overall the tax reform, in addition to improving the efficiency and fairness of corporate taxes, would increase government revenues.

We are also proposing the removal of special provisions like accelerated depreciation, and rapid write-off of exploration and development. Changing the basis for the corporate tax to a rent-based tax system via an ACE approach is intended to remove all disincentives to invest. Under an ACE system, the marginal tax rate on investment is zero, unlike in the current system. Under a system in which disincentives to invest have been eliminated, the case for special provisions like accelerated depreciation no longer apply. However, this proposal should be viewed as part of the package as

⁶⁶ See footnote 16.

⁶⁷ These data are obtained from and from Finance Canada, *Tax Expenditures and Evaluation 2012*.

a whole. If Canada does not move to a rent-based tax system, provisions like accelerated depreciation should be retained.

Finally, we have mentioned the advantages of the corporate tax being implemented by the federal government alone. As it stands, the Tax Collection Agreements are effective in harmonizing the corporate tax base among participating provinces, and making collection and compliance cost-effective. But, provinces remain able to set their corporate tax rate and to choose their own credits and deductions. It can be argued that their main objective is to attract businesses to their jurisdictions. However, given the inadequacies of the equalization system, especially the fact that it leaves the resource-rich provinces with significantly higher revenue capacity than the other provinces, provinces with above-average revenue potential are much more able to use the corporate tax system to divert investment from other provinces.⁶⁸ In these circumstances, the efficiency in the allocation of investment across provinces would be better served if the corporate tax were a federal tax, possibly with some of the revenue being shared with the provinces. This is a more far-reaching proposal that can be pursued independently of the structural changes to the corporate and personal tax systems that we are recommending.

Summary of Option 1 Recommendations

1. Change the corporate income tax from a tax on shareholders' income to a tax on rents or above-normal profits. Although the preferred method would be to adopt the CAA tax base since it is more flexible and easy to administer, an ACE would allow a smooth transition to the new system.
2. Personal tax changes
 - a. Tax unincorporated active business income on a rent basis using a CAA or ACE system.
 - b. Eliminate the dividend tax credit.
 - c. Eliminate the 50 percent inclusion rate for capital gains.

⁶⁸ For more detailed discussion of the consequences of resource-rich provinces being able to attract capital and labour from other provinces, see Boadway, Robin, Serge Coulombe, and Jean-François Tremblay, 'The Dutch Disease and the Canadian Economy: Challenges for Policy Makers,' Paper prepared for *Thinking Outside the Box: A Conference in Celebration of Thomas J. Courchene*, 2012, and 'Canadian Policy Prescriptions for the Dutch Disease,' IRPP Insight No. 3 (Montreal: IRPP, 2013); and Courchene, Thomas J., 'Surplus Recycling and the Canadian Federation: Addressing Horizontal and Vertical Fiscal Imbalances,' (Mowat Centre: School of Public Policy, University of Toronto, 2013).

3. Treatment of tax losses: Allow indefinite carry-forward of tax losses with interest.
4. Consolidated accounting
 - a. Introduce consolidated accounting to mitigate profit-shifting within Canada.
 - b. If not possible, at a minimum allow loss trading among affiliates.
 - c. Introduce country-by-country reporting whereby Canadian firms would have to disclose the amount and percentage of overall global profits generated in every country where they have financial flows, as recommended by the OECD.
5. Profit-shifting and tax competition: Vigorously pursue international cooperation to reduce profit-shifting.
6. Investment incentives
 - a. Eliminate special provisions like accelerated depreciation, and rapid write-off of exploration and development.
 - b. Eliminate deductibility of resource taxes and royalties.
 - c. Retain R&D incentives, and incentives for training, and consider making them fully refundable.
 - d. Consider giving preferential tax treatment of rents arising from innovations that are retained and commercialized in Canada.
7. Tax rates
 - a. Retain small business rate to mitigate risk faced by small firms who may wind up with unredeemed tax losses.
 - b. Do not increase general corporate tax rate since loss in revenues from ACE can be made up by elimination of the dividend tax credit and preferential capital gains inclusion rate, as well as elimination of deductibility of provincial resource taxes.
8. Federal-Provincial Issues
 - a. Provinces should change their CIT bases to conform with the federal reform, and to maintain harmonization via the tax collection agreements.
 - b. Consider a coordinated shift of the CIT to federal level accompanied by a revenue sharing agreement with the provinces to maintain revenue levels.

Option 2: Revenue-Neutral Corporate Tax Reform

A second option would be to leave the dividend tax credit and 50 percent inclusion rate in place, and focus solely on corporate tax changes. The key reform would still be to change to corporate tax base to above-normal profits or rents using either a CAA or ACE system. The loss in revenues from this smaller base would be made up elsewhere within the corporate tax system. As in the first option, some revenues could be obtained by eliminating the deductibility of natural resource royalties and taxes. The remaining shortfall would come from increasing the corporate tax rate. Alternatively, one could find revenues elsewhere in the tax system. However, given that Canadian corporate tax rates are low by international standards, and that the reform to a rent tax system reduces the pressures of corporate tax competition, a modest increase in the general corporate tax rate is manageable.

The order of magnitude of the increase in the corporate tax rate can readily be calculated. Recall de Mooij's estimate that moving to an ACE corporate tax system in Canada would reduce corporate tax revenues by 19 percent. A naïve calculation would suggest that increasing the corporate tax rate by 19 percent—from 15 percent to 18 percent—would roughly offset the loss in revenues from the reduced size of the corporate tax base. Of course, this is only a ballpark estimate because on the one hand the move to a more efficient corporate tax base should increase investment, and on the other an increase in the corporate tax rate might induce some profit-shifting. Moreover, the additional tax revenue from eliminating the deductibility of provincial resource revenues would provide some cushion.

This option is not the preferred one because the case for eliminating the integration provisions is strong, and also contributes to the fairness of the tax system. Nonetheless, the option is offered as an alternative in case a more incremental reform is desired. Apart from the change in corporate tax rates and the maintenance of the dividend tax credit and the 50 percent capital gains inclusion rate, the recommendations listed above would remain. Of course, it would always be possible to compromise between the two options by only partly eliminating the integrating provisions while increasing the corporate tax rate modestly, but that seems to be a less principled approach.

The benefit of eliminating the portion of the corporate tax that applies to the normal return to investment would accrue largely to labour.

9

Identifying the Gainers and Losers from the Reform

Policy reforms inevitably create gainers and losers, and it is typically difficult to identify precisely who they are. A corporate tax reform is no exception, especially since the burden of corporate taxes is likely to be shifted from corporations elsewhere in the economy through the operation of market forces. Despite that, we can form reasonable beliefs about who might benefit and who might lose from our recommended reform proposal, at least in the long run.

Let us focus on the two main components of the proposal: the reform of the corporate tax base to rents and the elimination of the dividend tax credit and 50 percent capital gains exclusion rate. With respect to the former, we adopt the perspective of section 4. We argued there that in a highly open economy such as Canada's, a substantial part of the burden of the corporate tax would be shifted to labour in the long run. This is because after-tax rates of return to capital are determined on international capital markets, so any attempt to tax the return to corporate capital would result in the pre-tax return rising to cover the tax. The result is that labour ends up bearing the burden of the tax in the form of lower wages. By the same argument, the benefit of eliminating the portion of the corporate tax that applies to the normal return to investment, as we are proposing, would accrue largely to labour, and that would especially be the case to the extent that the reform stimulated investment over the longer term. Naturally, we cannot pinpoint exactly which workers will be the main beneficiaries. That would be impossible to predict in the absence of much more knowledge of the response of the economy to the reforms.

The losers from the reform will be those who benefit from the dividend tax credit and the reduced taxation of capital gains. These will be savers who hold their assets in unsheltered forms. The market return on these assets is determined in international markets, and that is reduced by any personal taxes that savers pay. Such savers are disproportionately from higher income groups whose savings have exhausted their TFSA, RRSP or RRP limits. In the longer run, these will be even more concentrated in higher income groups as most of the population will be able to save in tax-sheltered vehicles.

One can argue that this contributes to the fairness of the tax system on two grounds. First, savers who were benefiting from the dividend tax credit and preferential capital gain provisions were obtaining an unnecessarily favourable tax benefit: they were being given credit for corporate taxes whose burden they did not actually incur. Undoing that preferential treatment removed a bias in the tax system that worked in their favour. Second, the elimination of integration increases the progressivity of the income tax system, which we would argue restores some fairness that has been eroded in recent years. This erosion is the result of two forces. The first is that upper-income groups have gained disproportionately to middle- and lower-income groups in recent years, reflecting an increase in inequality. The second is that the tax system has become less progressive, especially at the upper end. This reform will restore a modicum of fairness to the tax system, and accords well with policy prescriptions that many economists have recently proposed.⁶⁹

69 For example, see Banks, James, and Peter Diamond, 'The Base for Direct Taxation,' in Stuart Adam, Timothy Besley, Richard Blundell, Stephen Bond, Robert Chote, Malcolm Gammie, Paul Johnson, Gareth Myles, and James Poterba (eds.), *Dimensions of Tax Design: The Mirrlees Review*, (Oxford: Oxford University Press, 2010), 548–648; and Diamond, Peter, and Emmanuel Saez, 'The Case for a Progressive Tax: From Basic Research to Policy Recommendations,' *Journal of Economic Perspectives* 25, 2011, 165–90.

Increasing the tax take from higher-income groups is not without cost. It has been observed that taxable income is especially responsive to tax rates for upper-income taxpayers.⁷⁰ To the extent that the reform induces high-income taxpayers to reduce their reported income, they can avoid some of the loss. At least part of the loss is due to tax avoidance, such as arranging to change the form in which they earn their capital income by tax planning, or evasion, such as not reporting their income or hiding it abroad. Addressing these issues is beyond the scope of this study, but the issues are well-worth exploring in their own right by enhancing tax enforcement measures.

⁷⁰ See 'The Response of Individuals to Changes in Marginal Income Tax Rates,' in *Tax Expenditures and Evaluations 2010* (Ottawa, Department of Finance).

Appendix 1

Tax-Prepaid (TFSA) and Registered (RRSP) Savings

Assume a two-period setting. In period 1, wages are 2000, and savings are 500. The normal rate of return on savings is 10%. In period 2, earnings are 1000. The tax base under TFSA and RRSP systems are as follows.

PERIOD	TFSA	RRSP
1	2000	1500
2	1000	$1000 + 1.1 \times 500$
Present Value	$2000 + 1000 / 1.1$ =2909	$1500 + (1000 + 1.1 \times 500) / 1.1$ =2909

Note that in this example, the tax base under the RRSP is the same as consumption, so the present value of both tax bases is the same as consumption

Suppose now that the actual return on saving is 15%, which is 5% above normal. The above table becomes

PERIOD	TFSA	RRSP
1	2000	1500
2	1000	$1000 + 1.15 \times 500$
Present Value	$2000 + 1000 / 1.1$ =2909	$1500 + (1000 + 1.15 \times 500) / 1.1$ =2932

Now the tax base is higher under RRSP treatment than TFSA because above-normal profits are included.

Appendix 2

Worked Example of Various Corporate Tax Systems

An initial investment of 100,000 in year 1 yields a stream of revenue starting at X in year 1 and growing at 10% per year until year 5 when production ceases.

There are no other production costs, though current costs could be readily added.

The investment depreciates at 25 % per year, and the undepreciated capital is written off at the end of year 5.

The interest rate is 10%, and one-half of the corporation's capital is financed by debt. The corporate tax rate is 20%. There is no uncertainty.

Consider the firm's after-tax profitability in present value (PV) terms under various tax systems.

Cash Flow Tax

YEAR	REVENUES	EXPENDITURES	CASH FLOW	TAX LIABILITY	NET CASH FLOW
1	X	-100,000	X-100,000	.2(X-100,000)	.8(X-100,000)
2	(1.1)X	0	(1.1)X	.2(1.1)X	.8(1.1)X
3	(1.1) ² X	0	(1.1) ² X	.2(1.1) ² X	.8(1.1) ² X
4	(1.1) ³ X	0	(1.1) ³ X	.2(1.1) ³ X	.8(1.1) ³ X
5	(1.1) ⁴ X	0	(1.1) ⁴ X	.2(1.1) ⁴ X	.8(1.1) ⁴ X
PV	5X	-100,000	5X-100,000	.2(5X-100,000)	.8(5X-100,000)

In the absence of taxes, the PV of the firm's cash flow is $5X - 100,000$

With a 20% corporate tax, the after-tax cash flow is $.8(5X-100,000)$

For marginal firm, $PV = 0$

» No-tax marginal firm has $PV = 5X - 100,000$, so $X = 20,000$

» With cash flow tax, PV of net cash flow = 0, so $X = 20,000$

» Therefore, a cash flow tax is non-distortionary.

Existing Corporate Tax System

The corporate tax base is revenues minus (depreciation plus interest payments).

The net cash flow is the pre-tax cash flow minus tax liabilities.

YEAR	REVENUE (A)	DEPRECIATION (B)	BOOK CAPITAL	INTEREST (C)	TAXES .2(A-B-C)	NET CASH FLOW
1	X	0	100,000	0	.2X	.8X-100,000
2	(1.1)X	25,000	75,000	5,000	.2(1.1X-30,000)	.8(1.1)X+6,000
3	(1.1) ² X	18,750	56,250	3,750	.2(1.12X-22,500)	.8(1.1) ² X+4,500
4	(1.1) ³ X	14,063	42,188	2,813	.2(1.13X-16,876)	.8(1.1) ³ X+3,375
5	(1.1) ⁴ X	10,547+31,640	0	2,110	.2(1.14X-44,297)	.8(1.1) ⁴ X+8,859
PV	5X	100,000			.2(5X-88,802)	.8(5X-102,799)

Note: Depreciation in year 5 includes the terminal value of capital; interest is 10% of half of the value of book capital.

For the marginal firm, PV of net cash flow = 0, so $X = 20,560$

Existing corporate tax discourages investment: to break even requires a larger revenue stream than in the cash flow tax case.

Allowance for Corporate Equity System

The tax base is now revenues minus (depreciation plus the interest rate applied to the full value of the capital stock).

YEAR	REVENUE (A)	DEPRECIATION (B)	BOOK CAPITAL	FULL COST OF FINANCE (C)	TAXES .2 (A-B-C)	NET CASH FLOW
1	X	0	100,000	0	.2X	.8X-100,000
2	(1.1)X	25,000	75,000	10,000	.2(1.1X-35,000)	.8(1.1)X+7,000
3	(1.1) ² X	18,750	56,250	7,500	.2(1.12X-26,250)	.8(1.1) ² X+5,250
4	(1.1) ³ X	14,063	42,188	5,625	.2(1.13X-19,689)	.8(1.1) ³ X+3,938
5	(1.1) ⁴ X	10,547+31,640	0	4,219	.2(1.14X-46,406)	.8(1.1) ⁴ X+9,281
PV	5X	100,000			.2(5X-100,000)	.8(5X-100,000)

Note: Depreciation in year 5 includes the terminal value of capital.

For the marginal firm, PV of net cash flow = 0, so X = 20,000

ACE system is non-distortionary.

Glossary of Terms

Accrual accounting

Accounting for revenues and costs when sales are made and inputs used rather than when cash is received or paid out.

Active business income

Income earned from a business source, as opposed to investment income.

Allowance for corporate equity (ACE) system

A corporate tax system that allows a deduction for the cost of equity finance in addition to interest.

At-source income

Income when it is earned by a corporation rather than when it is received by shareholders of the corporation.

Canadian-controlled private corporation

A Canadian corporation that is private (i.e., has no shares listed on a stock exchange) and is not be controlled, directly or indirectly in any manner whatever, by public corporations, non-residents or a combination of the two.

Capital gains

The change in the value of assets over a given period, such as a tax year.

Cash accounting

Accounting for revenues from sales and costs of inputs when cash payments are made.

Cash-flow tax

A tax whose base is revenues less total expenses measured when cash is received and payments are made.

Comprehensive income tax

A personal income whose base includes all forms of income including wages and salaries, interest, dividends, capital gains, royalties and rents, and imputed returns on consumer durables.

Consolidated accounting

Revenues and costs of a firm when all subsidiary firms and branch plants are aggregated into a single accounting entity.

Depreciation

The loss in value of productive assets as a result of usage over the tax year.

Dividends

Income payments made by a corporation to its shareholder periodically.

Double taxation

The taxation of income twice, once when earned by the corporation and again when profits are distributed to shareholders.

Dual income tax

A tax system whereby labour earnings are subject to a different tax rate schedule than capital income, an example of which is the Nordic dual income tax that applies a progressive rate structure to earnings and a proportional tax to capital income.

Flow-through shares

A form of shares held by owners of corporations, typically in the natural resource sector, that allows deductions for capital costs to be claimed by the shareholders against their taxable income rather than by the corporation.

Foreign tax credit

A tax credit given by foreign governments on corporate taxes paid in Canada by corporations resident in the foreign country, where the credit applies against corporate taxes levied in the foreign country.

Formula apportionment

The assignment of corporate taxable income among provinces according to a formula that puts equal weight on the share of the revenues earned and the share of wage payments made in each province.

Hold-up problem

In taxation, the tendency of governments to impose excessive taxes on capital previously accumulated.

Inflation accounting

Adjusting capital costs to account for inflation.

Integration of corporate and personal tax

Giving shareholders credit against their personal tax liabilities for taxes that have been paid on their behalf by the corporations whose shares they own.

Interest deductibility

The deduction against corporate taxable income of interest paid on debt used to finance the purchase of capital and other inputs.

Loss carry-forward

The use of negative tax liabilities in one year to reduce positive tax liabilities in later years.

Marginal effective tax rate (METR)

The proportion of corporate profits paid as tax on projects that projects that are marginally profitable.

Negative tax liabilities

The amount of taxes owing when costs exceed revenues so the amount is negative.

Normal rate of return

The rate of return required to attract investors to hold a firm's assets, either via debt or equity, including any premium required to compensate them for the risk associated with the firm.

Personal consumption tax

A direct tax based on annual consumption expenditures by an individual taxpayer, typically using a progressive tax schedule.

Profit-shifting

The movement of profits of a corporation from one tax jurisdiction to another by one or more of several mechanisms, including transfer pricing, borrowing in high tax jurisdictions to finance operations in others, and payments of royalties for an affiliate in a low-tax country.

Pure profits

Profits in excess of the normal rate of profit.

Refundability

The immediate payment to taxpayers of negative taxes owing.

Rents

In the context of corporate profits, the same as pure profits, or equivalently an excess of revenues over the full costs of earning them.

Resource Rent Tax (RRT)

A tax applied to the cash flows of natural resource firms once past cash flows accumulated at the rate of interest exceed zero, so that tax is applied to all profits above the rate of interest.

Risk-adjusted rate of return

The rate of return on an asset adjusted for the risk associated with holding it, which could vary with the both the type of firm and whether the asset is long-term or short term.

Shareholder's income

Income earned by a shareholder in the form of dividends and capital gains.

FIGURE 7
Overall vision of corporate tax reforms

FROM	TO
Discouraging investment and innovation	Removing the disincentive to invest and promotes productivity
Opaque	Simple and understandable
Favours debt financing	Treats all sources of finance equally
Discriminates against risky, small firms	Supports innovative companies with ambition to grow from small to large
Unnecessary and imperfect integration with personal tax	Eliminates integration and improves fairness of overall tax system
Differential treatment of different industries and regions	Fairness and common treatment among sectors and regions

FIGURE 8
Potential benefits from the adoption of a rent-based tax system

ISSUE	IMPACT OF REFORM
Incentives to invest	Reduction in METR would generally strengthen investment incentives in all sectors.
Differential treatment of industries / Misallocation of capital	More equal METR across industries would improve the allocation of capital, which would tend to increase aggregate productivity.
Over leverage / reliance on debt	Adding a deduction for the cost of equity financing would remove the bias in favour of debt-financing and mitigate over leverage.
Tax avoidance / sheltering / profit shifting	Incentives to locate abroad to avoid taxation would depend on impact of reform on AETR in each industry. Little effect on international profit shifting if the statutory tax rate remains the same. Interprovincial profit shifting would be significantly reduced by the adoption of consolidated accounting for corporations with affiliates in multiple provinces.
Discrimination against small and risky firms / Disincentive to grow from small to large	Refundability of tax losses or carry-forward with interests would improve the treatment of risk-taking firms. Reduction in METR removes disincentive to grow through capital investment.
Insufficient capture of rents	Greater share of rents would be captured as the full tax incidence would fall on rents.
Incentives to innovate	Carry-forward of tax losses with interests would improve incentives to invest in risky and innovative activities. Increased investment incentives would stimulate capital-embodied technological progress.
Treatment of depreciation	Gaps between depreciation rates for tax purposes and true rates of economic depreciation would become irrelevant.
Revenue neutrality	Elimination of dividend-tax credit and 50% inclusion rate for capital gains would offset the revenue impact of the corporate tax reform while making the tax system more equitable. Elimination of the deductibility of provincial resource revenues could make the overall reform revenue-enhancing.

