
Income Taxes, Integration, and Income Trusts

Kenneth J. McKenzie*

PRÉCIS

Dans son budget du 2 mai 2006, le gouvernement conservateur a introduit des réductions importantes des taux d'impôt sur les dividendes. La croissance des fiducies de revenu et l'inquiétude liée à l'érosion de l'assiette fiscale des sociétés ont justifié cette réduction. Le 31 octobre 2006, en réponse aux préoccupations soulevées par le fait que les changements introduits dans le budget du mois de mai n'ont pas mis et ne mettront pas un frein à la popularité des fiducies de revenu, le gouvernement a annoncé l'imposition d'un impôt de distribution sur les attributions effectuées par les fiducies de revenu. Cet article étudie des recherches sur les conséquences économiques liées à l'imposition des dividendes et, à la lumière de ces recherches, il analyse les conséquences de la diminution des taux d'impôt sur les dividendes suite à la mise en application du budget, à la lumière de cet examen. L'article commente également l'efficacité des fiducies de revenu et de la réaction du gouvernement à ce sujet.

ABSTRACT

In its May 2, 2006 budget the Conservative government introduced a significant decrease in the tax rate on dividends. The tax cut was motivated by the growth of income trusts and concerns over the erosion of the corporate tax base. On October 31, 2006, in response to concerns that the changes introduced in the May budget did not, and would not, stem the growing income trust tide, the government announced the imposition of a tax on income trust dispositions. This article examines research regarding the economic effects of dividend taxation, and analyzes the impact of the decrease in the tax rate on dividends implemented by the budget in light of this research. It also discusses the efficiency implications of income trusts and the government's response to them.

KEYWORDS: INCOME TRUSTS ■ INTEGRATION ■ DIVIDENDS ■ INCOME TAXES ■ EFFICIENCY ■ NEUTRALITY

* Of the Department of Economics and Institute for Advanced Policy Research, University of Calgary and EnCana Scholar, C.D. Howe Institute, Toronto.

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In its inaugural May 2, 2006 budget, the Conservative government of Canada announced a significant decrease in the tax rate on dividends received from large public corporations. The tax cut was motivated in large part by the growth of income trusts and concerns over the potential erosion of the corporate income tax base associated with this growth. In a recent paper Jack Mintz estimates that the total revenue loss to the federal and provincial governments as a result of the conversion of corporations to income trusts is around \$1.1 billion per year.¹

In implementing the dividend tax cut, the Conservative government followed up on a surprise initiative announced by the predecessor Liberal government in November 2005 to fully integrate dividends from large corporations.² Prior to this initiative, the Liberal government had imposed a moratorium on advanced tax rulings for income trusts, with the goal of stemming the growth of income trusts pending further consultation and review. The November 2005 announcement, followed shortly by the call of the January 2006 election, and finally by the newly elected Conservative's May 2006 budget, apparently put an end to the consultation process.

1 The cost to the federal government from the reduced tax rate on dividends from large corporations announced in the budget is estimated to be \$375 million in 2006-7 (Canada, Department of Finance, 2006 Budget, Budget Plan, May 2, 2006, 202, table A3.1). In its 2005 consultation paper on income trusts and other flowthrough entities (such as limited partnerships), the federal Department of Finance estimated that in 2004 its revenues were \$300 million lower than they would have been if the flowthrough entities had been structured as corporations: Canada, Department of Finance, *Tax and Other Issues Related to Publicly Listed Flow-Through Entities (Income Trusts and Limited Partnerships)* (Ottawa: Department of Finance, September 2005). A more recent estimate by Mintz, which takes into account the recently announced conversion of Telus and Bell Canada Enterprises to income trusts, suggests that the federal government will forgo revenues of about \$726 million, and provincial governments about \$374 million: see Jack M. Mintz, “Policy Forum: Income Trust Conversions—Estimated Federal and Provincial Revenue Effects,” in this issue of the *Canadian Tax Journal*.

2 Canada, Department of Finance, “Minister of Finance Acts on Income Trust Issue,” *News Release* 2005-082, November 23, 2005.

The tax cut is substantial. For a high-income shareholder in Ontario, the personal tax rate on dividends received from a large corporation is cut almost in half, from 32.5 percent to 17 percent; the total (personal plus corporate) effective tax rate on corporate income distributed as dividends falls from 56 percent to 46 percent.³ The implications of such a large tax cut are significant, and go well beyond issues related to income trusts. For example, the budget documents indicate that, aside from making “the total personal and corporate income tax on earnings distributed as dividends more comparable to the income tax paid on interest payments and income trust distributions,” the “tax reduction will encourage savings, investment and economic growth.”⁴

On October 31, 2006, in another surprise move, the Conservative government announced its intention to change the tax treatment of income trusts.⁵ This announcement came in response to ongoing concerns that the reduction in the dividend tax rate introduced in the May budget did not, and would not, completely stem the growing income trust tide and the associated loss in tax revenue. Although details regarding the changes were not available as this article went to press—indeed, with a minority government, it is not even clear whether the proposals will be enacted in their original form—the imposition of a tax on income trust distributions will completely level the playing field between corporate dividends and income trust distributions.

The purpose of this article is twofold. The first is to examine academic research regarding the economic effects of dividend taxation, and to analyze the impact of the budget’s substantial reduction in the tax rate on dividends in light of this research. The second purpose is to discuss the efficiency implications of income trusts and the government’s response to them. As will be seen, the dividend tax cut and the taxation of income trusts are inextricably intertwined.

Will the tax changes curtail the growth of income trusts? Can we expect the reduction in taxes on dividends to encourage savings and investment? Will the changes enhance economic efficiency? The answers to these questions are not straightforward and depend critically upon several unresolved issues involving our understanding of taxation and capital markets. These uncertainties suggest that some prudence is called for in assessing the potential impact of the tax changes.

THE RELEVANT LAW

To begin, a brief summary of the law as it relates to the taxation of investment income earned through corporations and income trusts will set the stage for the ensuing discussion. This review is not intended to delve into the intricacies of the relevant

3 See the text below for details regarding these calculations.

4 Budget Plan, *supra* note 1, at 77.

5 Canada, Department of Finance, “Canada’s New Government Announces Tax Fairness Plan,” *News Release* 2006-061, October 31, 2006.

tax law, but rather simply to provide the background necessary for discussion of the economic issues.

Corporations

Corporations can finance investment in two ways: debt and equity. Equity finance, in turn, comes in two primary forms: retained earnings and new share issues. Corporate earnings are then distributed to investors in three basic ways: as interest paid to corporate debtholders, and as dividends and capital gains accruing to corporate equity holders. The taxation of each type of income varies.

Income earned by public corporations is taxed at the corporate level at the relevant corporate income tax rate. The federal rate is currently 22.12 percent (which includes a 1.12 percent surtax). Provincial rates vary, with a current weighted average general rate of around 13 percent. The result is an average combined federal-provincial rate of 35.12 percent. The federal government has announced that the surtax will be eliminated by 2008 and that the corporate income tax rate will be reduced to 19 percent by 2010. Barring any changes in provincial taxes, these cuts will lower the average federal-provincial corporate income tax rate to 32 percent by 2010. As part of the October 2006 announcement relating to income trusts, the government indicated its intention to lower the corporate tax rate by a further half percentage point in 2011, yielding a combined rate of 31.5 percent.

When a corporation distributes earnings to shareholders in the form of dividends, the income is taxed again at the shareholder level at the applicable marginal tax rate.⁶ In the absence of special provisions, corporate income is effectively taxed twice—once at the corporate level, because dividends are paid out of after-corporate-tax earnings, and once at the shareholder level. However, domestic shareholders in Canada are given credit for some of the corporate income taxes that have been paid on their behalf. This credit is granted on a notional basis by way of the dividend tax credit. Prior to the May 2006 federal budget, the credit was based on a presumed combined federal-provincial corporate income tax rate of 20 percent, which was meant to approximate the small business rate for privately held corporations (Canadian-controlled private corporations or CCPCs). This policy was intended to achieve the full integration of dividends paid by small privately held businesses.⁷ Dividends received by shareholders are grossed up to the pre-corporate tax level suggested by this notional tax rate, subject to tax at the shareholder's marginal tax rate, and a credit is granted on the basis of the notional dividend tax credit rate.⁸ Because the

6 Intercorporate dividends are tax-free.

7 CCPCs are taxed by the federal government at a preferential federal rate of 12 percent on the first \$300,000 of qualifying business income. Provincial rates vary, as do the thresholds. In most provinces the combined small business tax rate is in fact somewhat less than the 20 percent notional rate used in calculating the dividend tax credit, which means that the current tax system tends to be slightly overintegrated for many small businesses.

8 The gross-up was 125 percent and the combined federal-provincial dividend tax credit was an average of 20 percent.

federal-provincial tax rate for large public corporations (just over 35 percent) was greater than the notional 20 percent rate, the dividend tax credit before the budget removed some, but not all, of the corporate-level tax on dividends paid by public corporations. Thus, while domestic shareholders of large public corporations were granted partial relief from double taxation prior to the budget, dividends distributed by fully taxpaying corporations in Canada were still subject to some amount of double taxation and the tax system was underintegrated.⁹

The May 2006 federal budget announced an increase in the dividend tax credit rate for dividends received from public corporations. The dividend tax credit rate was based on a notional federal-provincial corporate income tax rate of 32 percent for dividends received after 2005, up from 20 percent under the previous system. The new rate is meant to reflect the reduction in the corporate tax rate to 32 percent, which will be fully implemented by 2010. The goal is to approximate full integration for fully taxpaying public corporations at that time.¹⁰ Dividends received from CCPCs will continue to receive the 20 percent dividend tax credit.

Of course, corporations do not necessarily distribute all of their earnings as dividends to shareholders. Instead, they may choose to retain some of those earnings and reinvest them within the firm. If a corporation retains some of its earnings, the value of its stock will generally increase to reflect those earnings. When shareholders subsequently sell the stock, capital gains arising from the sale are taxed. Thus, like income distributed as dividends, retained corporate income is taxed twice—once at the corporate level by way of the corporate income tax, and again at the investor level by way of the capital gains tax. Partial relief from this double taxation is granted by the rule that only half of realized capital gains must be included in taxable income at the shareholder level. Moreover, because capital gains are taxed on realization, not as they accrue, the accrual-equivalent effective tax rate declines in present-value terms the longer shares are held.¹¹

Where an investment is financed by debt, interest on the debt is deductible for corporate income tax purposes. Interest income received by domestic lenders is

9 Dividends received from tax loss corporations, which pay no corporate income tax, are still eligible for the dividend tax credit. As a result, for these dividends the tax system is overintegrated.

10 Specifically, shareholders will include 145 percent of the eligible dividend amount in income, and the federal dividend tax credit with respect to eligible dividends will be approximately 19 percent of that grossed-up amount, reflecting the 19 percent general corporate tax rate that will apply beginning in 2010. It is assumed that the provinces and territories will increase their dividend tax credits for eligible dividends to equal their general corporate income tax rates, which are presumed to be around 13 percent on average, which will raise the dividend tax credit to 32 percent.

11 For more on the accrual-equivalent effective tax rate on capital gains, see Graham Glenday and James B. Davies, "Accrual Equivalent Marginal Tax Rates for Personal Financial Assets" (1990) vol. 23, no. 1 *Canadian Journal of Economics* 189-209.

taxed at the lenders' full marginal tax rate. Because interest payments are deductible at the corporate level and fully taxable in the hands of investors, interest payments, unlike dividends and capital gains, are taxed only once, at the investor level.

Tax-exempt entities, which include pension funds and registered retirement savings plans (RRSPs), as well as educational, religious, and other charitable organizations, supply a substantial portion of the corporate capital in Canada. These entities are not taxed on interest, dividends, or capital gains. However, because the dividend tax credit is not refundable, the corporate-level tax applies to corporate income attributable to the equity capital supplied by tax-exempt entities. Thus, the equity investment income received by tax-exempt entities in the form of dividends and capital gains is not in fact tax-exempt, because it is taxed once at the corporate level.

Income received by foreign shareholders and lenders from Canadian corporations is not subject to Canadian income tax but is subject to withholding taxes. In Canada, a general withholding tax rate of 25 percent is applied to interest and dividends paid to foreign investors. This general rate may be reduced by bilateral treaties. For example, the Canada-US tax treaty lowers the withholding tax rate to 15 percent on dividends paid to US shareholders.¹² For interest payments to US lenders, the withholding tax rate is 10 percent. Interest and dividend payments received by US residents are subject to US domestic taxes, but Canadian withholding taxes are generally creditable against the US tax liability. In principle, US foreign tax credits should remove the Canadian taxes on dividend and interest income received by US residents. However, US tax is assessed on a global basis, which means that income and foreign tax credits are aggregated into various "baskets." Thus, even if Canadian taxes paid by a US resident are less than the US domestic tax on interest and dividends, it is possible that these taxes will not be fully credited against US taxes if other foreign sources of income earned by the US resident are highly taxed.¹³

Income Trusts

In discussing the taxation of income trusts, it is necessary to distinguish between the tax treatment before and after the proposed rules announced on October 31, 2006. The tax treatment before the announcement is discussed first.

Income trusts come in various forms, but there are two basic structures: business income trusts and royalty trusts. Regardless of their structure, the salient feature of income trusts is that the income earned generally is not subject to corporate income

12 See the Convention Between Canada and the United States of America with Respect to Taxes on Income and on Capital, signed at Washington, DC on September 26, 1980, as amended by the protocols signed on June 14, 1983, March 28, 1984, March 17, 1995, and July 29, 1997. The withholding tax rate on dividends is reduced to 5 percent where the US shareholder owns 10 percent or more of the voting shares. For a discussion of withholding taxes, see Jack M. Mintz, *Withholding Taxes on Income Paid to Nonresidents: Removing a Canadian-US Border Irritant*, C.D. Howe Institute Backgrounder (Toronto: C.D. Howe Institute, March 5, 2001).

13 See Mintz, *supra* note 12.

taxes but rather is flowed through to investors (unitholders) and taxed at the personal level at the relevant rate. Thus, all of the income earned within an income trust is taxed only once, at the unitholder level.

In a typical structure for a business income trust, the trust forms a subsidiary to acquire the assets of a company. The trust sells trust units to the public and uses the proceeds to acquire all of the debt and equity of the company. The trust then capitalizes the new operating company with non-arm's-length private market debt that generates tax-deductible interest payments sufficient to eliminate corporate income taxes. In the case of a royalty trust—commonly used in the oil and gas sector—the trust purchases a royalty interest in the company. Since non-Crown royalties like interest are tax-deductible, corporate income taxes are eliminated in this way.

In either case, before the October 31, 2006 announcement, the income trust eliminated or substantially reduced corporate income taxes and flowed the income through to unitholders tax-free.¹⁴ The income received by unitholders was then typically taxed as ordinary income in the form of interest or royalties, which is taxed at a higher rate than dividends (net of the dividend tax credit). Thus, before the October 2006 announcement, income earned by way of an income trust was taxed only once, in the hands of unitholders. Earnings within the income trust that were not distributed to unitholders were taxed at the top personal rate on ordinary income (29 percent federal plus the applicable provincial rate—in Ontario, a combined rate of about 46 percent). Moreover, capital gains on the sale of trust units are taxed in the hands of unitholders at the relevant capital gains tax rate upon realization. Distributions in excess of the income generated in the trust reduce the adjusted cost base of trust units for capital gains purposes, which gives rise to higher capital gains taxes on the sale of trust units.

The proposed rules announced on October 31, 2006 apply to “specified investment flowthroughs” (SIFTs). Although the precise legislation defining SIFTs was not available as this article went to press, for all intents and purposes it can be assumed that all of the entities conventionally known as income trusts will be SIFTs. The intent is to apply a tax rate on both the distributed and undistributed earnings of SIFTs that is equivalent to the federal general corporate income tax rate, plus 13 percent to account for provincial corporate taxes. This tax rate will be 34 percent in 2007, and it will drop to 31.5 percent by 2011.¹⁵

14 For a discussion of the structure of income trusts, see Lalit Agarwal and Jack Mintz, “Income Trusts and Shareholder Taxation: Getting It Right” (2004) vol. 52, no. 3 *Canadian Tax Journal* 792-818; Paul D. Hayward, “Income Trusts: A ‘Tax-Efficient’ Product or the Product of Tax Inefficiency?” (2002) vol. 50, no. 5 *Canadian Tax Journal* 1529-69; and Felipe Aguerrevere, Federica Pazzaglia, and Rahul Ravi, “Income Trusts and the Great Conversion” [Winter 2005] *Canadian Investment Review* 8-14.

15 Certain trusts that would otherwise be SIFTs will apparently be excluded from the SIFT definition. These are trusts (commonly known as real estate investment trusts or REITs) that meet a series of conditions relating to the nature of their income and investments. Also, while the tax on income trust distributions will apply to all new SIFTS, it will not apply until 2011 to SIFTS that were publicly traded before November 2006.

Furthermore, under the proposed changes, income trust distributions will no longer be taxed in the hands of unitholders as ordinary income, but rather at the lower rate applied to dividends. These “deemed dividends” will therefore be eligible for the enhanced dividend tax credit implemented in the May 2006 budget. Non-resident unitholders will continue to be subject to the withholding tax.

THE DISTORTIONARY EFFECTS OF TAXES ON BUSINESS INCOME

The workhorse model used to analyze the distortionary effects of taxes on corporate income is the neoclassical investment model, which gives rise to the idea of the cost of capital and the related concept of the marginal effective tax rate on capital.¹⁶ When deciding whether to undertake an investment, a firm requires that the investment provide a sufficient after-tax return to compensate investors. The cost of capital is the pre-tax rate of return that is just sufficient to cover operating expenses, taxes, economic depreciation, and the investors’ required after-tax rate of return. Thus, the cost of capital depends in part on the return that a firm must pay to suppliers of debt and equity capital to attract funds. The cost of capital also depends on such factors as tax rates, the investment’s economic depreciation rate, capital cost allowances (tax depreciation) on the investment, the inflation rate, and the source of financing for the investment. Because a higher cost of capital makes some investments unprofitable, corporate and individual income taxes may reduce investment incentives by raising the cost of capital.

The concept of the marginal effective tax rate is related to the cost of capital in that it measures the percentage difference between the pre-tax rate of return on an investment and the post-tax rate of return required by lenders and shareholders. The marginal effective tax rate is typically normalized with respect to the required pre-tax rate of return, and can then be thought of as the share of the pre-tax rate of return accounted for by the taxes associated with the investment.

The Standard Story

A simple stylized example, which will be carried through much of the discussion, illustrates what might be thought of as the “standard story,” as reflected in public

16 For the neoclassical investment model, see Alan J. Auerbach, “Wealth Maximization and the Cost of Capital” (1979) vol. 93, no. 3 *The Quarterly Journal of Economics* 433-46 and Alan J. Auerbach, “Taxation, Corporate Financial Policy and the Cost of Capital” (1983) vol. 21, no. 3 *Journal of Economic Literature* 905-40. For a discussion of the marginal effective tax rate methodology, see Robin W. Boadway, “The Theory and Measurement of Effective Tax Rates,” in Jack M. Mintz and Douglas D. Purvis, eds., *The Impact of Taxation on Business Activity* (Kingston, ON: Queen’s University, John Deutsch Institute for the Study of Economic Policy, 1987), 60-98, and Kenneth J. McKenzie, Mario Mansour, and Ariane Brûlé, *The Calculation of Marginal Effective Tax Rates*, Working Paper 97-15 prepared for the Technical Committee on Business Taxation (Ottawa: Department of Finance, May 1998).

discussions, regarding the impact of corporate taxation on organizational form, investment, and savings.¹⁷ The example assumes that investments are made in physical capital and that, under the corporate tax system, tax depreciation is equal to economic depreciation and no other taxes are levied on capital at the corporate level. Inflation is ignored, and the calculations assume a “closed economy” capital market, where domestic investment is financed by domestic savings. The calculations also take the “traditional view” of dividend taxation, whereby dividend taxes affect investment and payout decisions. These assumptions are made simply to focus the discussion at this point. Other considerations—a richer and more realistic representation of the corporate tax system, an analysis of the implications of Canada as a small participant in an open international capital market, and an alternative view of dividend taxation—are discussed later.

Suppose that an investor requires an after-tax rate of return of 8 percent and that the investor’s marginal tax rate is 46 percent.¹⁸ Consider an investment made in a non-corporate enterprise that is not subject to the corporate income tax. This enterprise may be an income trust or any other non-corporate form that allows income to be flowed through to investors tax-free, such as a limited partnership. In the case of an income trust prior to the October 31, 2006 announcement, the investment must earn a return high enough to pay tax at the investor’s rate (46 percent) and still yield the required 8 percent after-tax rate of return. In order to cover the investor’s income taxes and meet the required after-tax return, the non-corporate investment must therefore earn a pre-tax rate of return (net of depreciation) of 14.8 percent ($0.148 \times (1 - 0.46) = 0.08$). The marginal effective tax rate on this investment is equal to the difference between the pre- and post-tax required rates of return as a percentage of the pre-tax rate of return, which in this case is simply equal to the individual’s statutory tax rate of 46 percent ($(0.148 - 0.08)/0.148 = 0.46$).

Now consider an equity investment made in a corporation. Assume for now that all of the earnings are distributed as dividends. The corporate income tax rate is 35 percent. Under the pre-May 2006 budget system, when the dividend tax credit rate of 20 percent was less than the corporate income tax rate of 35 percent, the investor-level marginal tax rate on dividends is 32.5 percent.¹⁹ In this case, the cost of capital for an equity-financed investment in the corporate sector is 18.2 percent. This pre-tax rate of return yields the required 8 percent rate of return after both the corporate tax and the investor-level tax on dividends are paid ($0.182 \times (1 - 0.35) \times (1 - 0.325) = 0.08$). The marginal effective tax rate in this case is 56 percent ($(0.182 - 0.08)/0.182 = 0.56$).

17 See, for example, *Tax and Other Issues Related to Publicly Listed Flow-Through Entities*, supra note 1.

18 This is the marginal tax rate on ordinary income for a high income earner in Ontario.

19 This is the marginal tax rate on dividend income for a high income earner in Ontario under the pre-May 2006 system. It is calculated as $(0.46 - 0.20)/(1 - 0.20) = 0.325$, where the individual’s tax rate is 46 percent and the notional corporate tax rate that determines the dividend tax credit is 20 percent.

Since fewer investments can earn the higher required return (18.2 percent as opposed to 14.8 percent), the standard story suggests that the lack of full integration in the taxation of corporate income discourages investment in the corporate sector as compared with the non-corporate sector (income trusts) by raising the cost of capital.

Now consider the same example, but this time assume that the tax system is fully integrated by way of an enhanced dividend tax credit equal to the corporate income tax rate of 35 percent. This is in the spirit of the May 2006 budget proposal.²⁰ Everything is as before, except that the investor's marginal tax rate on dividends drops to 17 percent as a result of the higher dividend tax credit.²¹ With a corporate tax rate of 35 percent, the cost of capital falls to 14.8 percent ($0.148 \times (1 - 0.35) \times (1 - 0.17) = 0.08$), and the marginal effective tax rate declines to 46 percent, which is exactly the same as the effective tax rate on non-corporate investments. Thus, in a fully integrated tax system, for taxable investors there is no difference in effective tax rates between corporate and non-corporate investments. As indicated in the budget, the reduction in the personal tax rate on dividends appears to equalize the effective tax rate on investments made through corporations and those made through income trusts by lowering the marginal effective tax rate on corporate investments.

In the standard story, the tax cut on dividends received from public corporations should encourage more investment and savings by lowering the cost of capital and the marginal effective tax rate. Moreover, by eliminating distortions in the cost of capital between the corporate and non-corporate sectors, it will generate efficiency gains. Beginning with Harberger,²² economists have argued that a less than fully integrated corporate tax system misallocates capital between the corporate and non-corporate sectors and gives rise to efficiency costs. Traditionally, economists have focused on non-corporate entities such as sole proprietorships or partnerships that do not realize the benefits of incorporation such as limited liability, centralized management, and the ability to access liquid capital markets and exploit economies of scale. Some of these issues may not be relevant to enterprises organized as income trusts, but other issues arise.

The income trust structure effectively places another administrative layer between investors (unitholders) and the operating company. Rather than a board of directors, a board of trustees represents the interests of unitholders. Moreover, income trusts and corporations fall under different codes of law, which gives rise to several governance issues. For example, King points out that

20 The actual proposal is for a dividend tax credit of 32 percent, reflecting the proposed reduction in the corporate income tax from 35 percent to 32 percent over the next four years.

21 This is calculated as $(0.46 - 0.35)/(1 - 0.35) = 0.17$, where the notional corporate tax rate used to calculate the dividend tax credit is 35 percent, which is equal to the corporate tax rate. With a dividend tax credit of 32 percent, the marginal tax rate on dividends would be 20 percent.

22 Arnold C. Harberger, "The Incidence of the Corporation Income Tax" (1962) vol. 70, no. 3 *The Journal of Political Economy* 215-40.

[w]hile income trusts resemble corporate entities . . . [they] were not designed to accommodate active shareholder input, leading to a deficiency in the disclosure and transparency of income trusts relative to corporate entities. . . .

[T]here is no legislation enforced in Canada that requires trustees of an income trust to be independent, or that requires a majority of the trustees to be independent. . . . In many cases, the trustees may be appointed without the approval of unit-holders, are responsible for drafting disclosure and insider trading policies, and are responsible for auditing the management of the operating company. More importantly, in the case of many income trusts, some or all of the trustees of the income trust are the managers of the operating company. This situation creates a number of potential conflicts of interest that investors must take into account when they evaluate an income trust.²³

Given the “governance costs” of income trusts and, importantly, in the absence of tax considerations, it is extremely unlikely that many, or any, businesses would choose to organize themselves in this form. Thus, to the extent that the tax system causes a misallocation of capital between corporate and non-corporate forms, in particular income trusts, it generates efficiency costs.

As illustrated above, prior to the May 2006 budget, the cost of capital was lower for income trusts than for corporations. This raises serious concerns about distortions in the cost of capital within and across industries. If businesses organized as income trusts have a lower cost of capital than do businesses organized as corporations, some businesses can have a competitive advantage over others for tax reasons alone, leading to distortions and efficiency costs due to the misallocation of capital. This may be particularly problematic for infant firms competing against mature, established firms, because the latter are better able than the former to organize themselves as income trusts. Similarly, some industries and activities are more conducive than others to the income trust structure. These sorts of non-neutralities—whereby investments face different effective tax rates depending on how a business is organized—result in real efficiency costs in the economy.

A related issue concerns the tax bias of income trusts against the retention of income for reinvestment. As discussed above, prior to the October 31, 2006 announcement, undistributed earnings in income trusts were taxed at the highest personal tax rate. This provided a strong incentive to distribute all earnings to unit-holders. Young, emerging businesses typically need to reinvest all of their earnings in the company in order to grow, and the difficulty these businesses face in organizing themselves as income trusts introduced yet another non-neutrality into the tax system.

The tax cut on dividends received from large public corporations announced in the May 2006 federal budget went some way toward addressing these issues. As

23 Michael R. King, *Income Trusts—Understanding the Issues*, Bank of Canada Working Paper 2003-25 (Ottawa: Bank of Canada, September 2003), referring to S.I. Erlichman, “Income Trusts: Some Legal Considerations,” speech delivered to the National Summit on Income Trusts, Toronto, November 25-26, 2002.

suggested by the stylized effective tax rate calculations above, for fully taxpaying public corporations held by non-tax-exempt shareholders, the marginal effective tax rates on investments in the corporate and non-corporate sectors are equalized at 46 percent. The expectation is that this equalization will lower the overall cost of capital, increase investment and savings, and reduce the incentive for businesses to organize themselves as income trusts, thereby reducing the efficiency costs resulting from the misallocation of capital between the corporate and non-corporate sectors.

It is important to note, however, that even with the enhanced dividend tax credit, tax-exempt or tax-sheltered investors still had an incentive to organize in a non-corporate form such as an income trust. The calculations above assume that the investor is a taxpaying entity, or does not hold the investment in a tax-sheltered pension plan or RRSP. If the investment is held in a tax-exempt form, there is no tax at the shareholder level. In this case, the marginal effective tax rate under the non-corporate flowthrough form is zero, because no taxes are paid at either the corporate or the investor level. The marginal effective tax rate under the corporate form (using the assumptions of the stylized example) is equal to the statutory corporate tax rate of 35 percent, both before and after the May 2006 budget. This is because the dividend tax credit is not refundable, and therefore does not remove the corporate income tax levied on dividends. Thus, pension plans and other tax-exempt investors, as well as those who invest through RRSPs, continued to prefer income trust distributions over corporate distributions for tax reasons.

Non-resident investors also continued to prefer income trust distributions over dividends because they were taxed at a 15 percent withholding tax rate rather than at the higher corporate and withholding tax rates on dividends, which amount to 44.75 percent in our stylized example $(0.35 + [(1 - 0.35) \times 0.15] = 0.4475)$.

Mintz estimates that 39 percent of the distributions of income trusts go to tax-exempt domestic investors (pension funds, tax-exempt mutual funds, and tax-exempt retail investors by way of RRSPs), and 22 percent go to non-resident unitholders.²⁴ Thus, 61 percent of income trust distributions go to investors who continued to prefer non-corporate over corporate distributions.

It seems, then, that while the enhanced dividend tax credit introduced in the May 2006 budget alleviated some of the efficiency costs associated with distortions to organizational form and investment under the standard story, it by no means eliminated them, because a sizable clientele for income trusts continued to exist. Under the May 2006 rules, it was very likely that the capital market would segment, with tax-exempt and tax-sheltered investors primarily holding income trusts and taxable investors holding corporate shares. Indeed, Klassen and Mescall²⁵ identified

24 Mintz, *supra* note 1.

25 Kenneth Klassen and Devan Mescall, *Valuation of Income Trusts: An Exploration of Clienteles and Implicit Taxes*, School of Accountancy Working Paper (Waterloo, ON: University of Waterloo, School of Accountancy, 2006).

the presence of this sort of clientele effect in the income trust market even before the changes to the dividend tax credit. They found, as expected in a segmented capital market, that the implicit tax rate on marginal investors in income trusts is substantially lower than the rate on corporate shareholders, suggesting the presence of a clientele effect.

In the late summer and early fall of 2006—after the May 2006 budget implementing the enhanced dividend tax credit—two large Canadian telecommunications companies, Telus and Bell Canada Enterprises (BCE), announced their intention to convert to income trusts. Apparently, both companies thought there was a sufficiently large tax clientele for income trusts to justify conversion.

In response to these announcements, and in a pre-emptive response to future conversions, the federal government announced on October 31, 2006 its intention to levy a tax on income trust distributions equal to the combined federal-provincial corporate tax rate. The government also proposed to tax unitholders on distributions received from income trusts at the dividend tax rate, rather than at the higher tax rate on ordinary income.

If these proposals are enacted in their original form, the effective tax rate on income trust distributions will be virtually the same as the effective tax rate on corporate dividend distributions, regardless of the tax status of the investors. In terms of the stylized example employed above, assuming a corporate tax rate of 35 percent, the cost of capital will be 14.8 percent ($0.148 \times (1 - 0.35) \times (1 - 0.17) = 0.08$), and the marginal effective tax rate will be 46 percent on all investments, regardless of how the business is organized (as a corporation or as an income trust) and regardless of the taxability of the investor (taxpaying or tax-exempt). Similarly, non-resident investors will face the same effective tax rate on income trusts and corporate shares. In conjunction with the May budget, the October announcement will therefore eliminate any tax advantage to organizing in the non-corporate form and, as a result, will eliminate the non-neutralities that existed in the tax treatment of corporate and non-corporate investments.

Non-Standard Stories

A key feature of the standard story told above is that taxes on dividends discourage investment and savings by raising the cost of capital faced by corporations. While this view has intuitive appeal, it may not turn out to be valid for two reasons, both of which have to do with the nature of capital markets.

The “New View” of Dividend Taxation

The tax system may distort a corporation’s incentive to distribute or retain earnings. As will be elaborated on below, this is not a straightforward issue, but it is easy to see the nature of the potential distortion using the stylized example employed above. Under the pre-budget system, the cost of capital for an equity-financed investment whose earnings are distributed as dividends is 18.2 percent, which yields a marginal effective tax rate of 56 percent. If, however, earnings are retained within

the firm and generate a dollar-for-dollar increase in the market value of the firm, the resulting capital gain is taxed at half of the investor's full marginal tax rate (23 percent in the example). For a top-rate taxpaying investor with a one-year horizon, the cost of capital for an equity-financed investment whose earnings are retained is 16 percent ($0.16 \times (1 - 0.35) \times (1 - 0.23) = 0.08$), which yields a marginal effective tax rate of 50 percent. This suggests an incentive to retain corporate earnings rather than pay them out as dividends. Indeed, the incentive is even stronger than this. Since capital gains are taxed on realization, delaying the sale of shares reduces the effective capital gains tax rate on an accrual basis. For example, if shares are held for an eight-year holding period, the accrual-equivalent capital gains tax rate declines from 23 percent to about 12 percent, which generates a cost of capital of 14 percent ($0.14 \times (1 - 0.35) \times (1 - 0.12) = 0.08$) and a marginal effective tax rate of 43 percent, which is even lower than the effective tax rate on debt-financed investment and investment in a non-corporate entity.²⁶

While the decrease in the tax rate on dividends alleviates the tax penalty on distributions to some extent, a key question then is, why do corporations pay dividends at all when such a penalty exists? There is actually a good deal of controversy in the public finance literature regarding this question. The two competing explanations are referred to as the "traditional view" and the "new view" of dividend taxation.²⁷ The traditional view, which is implicit in the standard story developed above, holds that dividends offer non-tax benefits to shareholders that offset the dividends' tax disadvantage. For example, in the presence of informational asymmetries between

26 The implicit assumption here is that capital gains are realized for non-tax reasons. This may not be the case, because the realization-based taxation of capital gains in and of itself introduced distortions through the lock-in effect.

27 For a general discussion, see Kenneth J. McKenzie and Aileen J. Thompson, *The Economic Effects of Dividend Taxation*, Working Paper 96-7 prepared for the Technical Committee on Business Taxation (Ottawa: Department of Finance, December 1996); James M. Poterba and Lawrence H. Summers, "The Economic Effects of Dividend Taxation," in Edward Altman and Marti Subrahmanyam, eds., *Recent Advances in Corporate Finance* (Homewood, IL: Irwin, 1985), 227-84; and George R. Zodrow, "On the 'Traditional' and 'New' Views of Dividend Taxation" (1991) vol. 44, no. 4, part 2 *National Tax Journal* 497-509. The new view is associated with Mervyn A. King, *Public Policy and the Corporation* (London: Chapman and Hall, 1977); Auerbach, "Wealth Maximization," supra note 16; and David F. Bradford, "The Incidence and Allocation Effects of a Tax on Corporate Distributions" (1981) vol. 15, no. 1 *Journal of Public Economics* 1-22. The traditional view comes in many forms. For example, Frank H. Easterbrook, "Two Agency-Cost Explanations of Dividends" (1984) vol. 74, no. 4 *The American Economic Review* 650-59 and Michael C. Jensen, "Agency Costs of Free Cash Flow, Corporate Finance, and Takeovers" (1986) vol. 76, no. 2 *The American Economic Review* 323-29, sketch out some agency models, while Merton H. Miller and Kevin Rock, "Dividend Policy Under Asymmetric Information" (1985) vol. 40, no. 4 *Journal of Finance* 1031-51; B. Douglas Bernheim, "Tax Policy and the Dividend Puzzle" (1991) vol. 22, no. 4 *RAND Journal of Economics* 455-76; and B. Douglas Bernheim and Lee S. Redding, "Optimal Money Burning: Theory and Application to Corporate Dividends" (2001) vol. 10, no. 4 *Journal of Economics & Management Strategy* 463-507, look at signalling.

investors and management, dividends may provide signals to investors about a corporation's relative financial strength or future prospects. Alternatively, dividend payouts may reduce managerial discretion over internal funds, thus lowering agency costs. According to the traditional view, corporations set dividend payments so that, for the last dollar of dividends paid, the extra benefit of dividends just equals their extra tax cost. The need to maintain dividend payments for these non-tax benefits constrains the use of retained earnings as the marginal source of equity financing for new investments, and encourages the use of new share issues as the marginal source of financing. Thus, under the traditional view, the relevant investor-level tax rate on equity-financed investment is a weighted average of the tax rate on dividends and the accrual-equivalent tax rate on capital gains. In this case, taxes on dividends (and capital gains) increase the cost of capital and discourage investment and savings, as in the standard story recounted above.

Under the new view, dividend payments offer no non-tax benefits to shareholders relative to retentions. However, because corporations are presumed to be constrained in their ability to distribute earnings to investors by other means (such as share repurchases), they have no alternative but to use dividends. Dividends are therefore determined residually, after the firm makes all profitable investments, and dividend taxes act as a lump-sum tax on corporate equity. Retained earnings (and debt) are the marginal source of financing, and the relevant investor-level tax rate is just the capital gains tax rate. Investor-level taxes on dividends reduce the value of the firm but have no impact on the firm's cost of capital and therefore have no bearing on dividend or investment policies. Although the dividend tax does not affect investment incentives, the capital gains tax does, because retentions increase the value of shares and that increase is taxed as a capital gain.

There is little in the way of empirical evidence that allows us to say definitively which view of dividend taxes is correct. Some research finds evidence in support of the traditional view and other research finds evidence in support of the new view.²⁸ In a recent article, Auerbach and Hassett²⁹ suggest that both views may in fact be relevant, depending on the firm—they find that about half of the firms in the United States can be viewed as traditional view firms and the other half as new view firms.

The question of which view of dividend taxation is correct therefore remains unsettled. Unfortunately, it has important implications for the economic impact of the cut in dividend taxes contained in the May 2006 budget. To illustrate these implications, table 1 presents pre- and post-budget marginal effective tax rate calculations for equity-financed investments under both views.³⁰ These calculations differ from the

28 For a summary of the empirical research, see McKenzie and Thompson, *supra* note 27; Zodrow, *ibid.*; and Alan J. Auerbach and Kevin A. Hassett, "On the Marginal Source of Investment Funds" (2003) vol. 87, no. 1 *Journal of Public Economics* 205-32.

29 Auerbach and Hassett, *supra* note 28.

30 The calculations in table 1 are for a closed capital market.

TABLE 1 Marginal Effective Tax Rates on Equity-Financed Investments: Traditional Versus New Views, Closed Capital Market

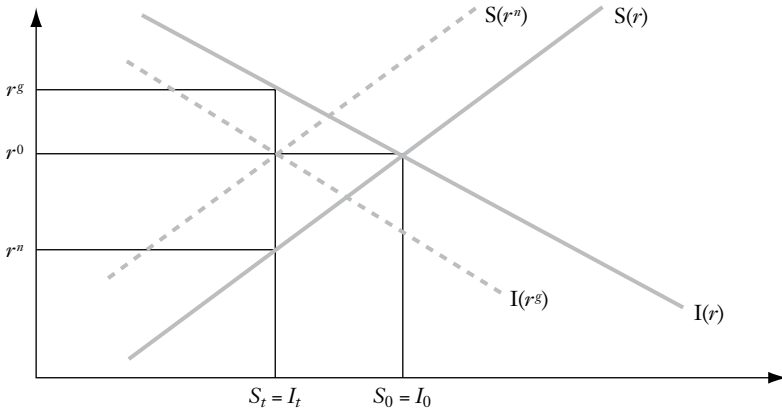
	Pre-budget		Post-budget	
	Traditional	New	Traditional	New
	<i>percent</i>			
Marginal effective tax rate on investments				
Equipment	58.8	51.5	53.4	51.5
Buildings	65.4	59.7	61.2	59.7
Land	57.7	48.9	51.2	48.9
Inventories	64.2	58.2	59.8	58.2
Average	61.9	55.3	57.1	55.3

stylized example used to this point in that they allow for different types of investments (buildings, equipment, land, and inventories), incorporate a richer formulation of the tax system (by allowing for deviations between economic and tax depreciation, provincial capital taxes, and implicit sales taxes on capital due to provincial sales taxes), and reflect the presence of inflation. Details on the formulas and data used in the calculations are provided in the appendix.

Under the traditional view of dividend taxes, the marginal effective tax rate for a large public corporation is just under 62 percent prior to the May budget. The budget's increase in the dividend tax credit lowers the marginal effective tax rate to just over 57 percent. Under the new view, the total marginal effective tax rate both before and after the budget is about 57 percent (because of the irrelevance of dividend taxes and tax credits under the new view). Thus, under the traditional view, the dividend tax cut lowers the marginal effective tax rate by 5 percentage points, stimulating both savings and investment. Under the new view, although the marginal effective tax rate is lower to begin with, the tax cut has no impact on either savings or investment.

Small Open Capital Market with Internationally Mobile Capital

To this point the discussion has assumed that the Canadian capital market is closed, with domestic investment financed by domestic savings. This assumption suggests an equivalence between taxes on the supply side of the capital market (taxes on interest, capital gains, and, under the traditional view, dividends) and the demand side of the market (corporate income taxes, provincial capital taxes, and implicit sales taxes on capital) in terms of their impact on savings and investment. Figure 1 illustrates this closed capital market. Initially, with no taxes, demand and supply for a homogenous investment good are equilibrated at a rate of return on capital of r^0 at $S_0 = I_0$. Demand-side taxes shift the demand curve down and supply-side taxes shift the supply curve up, resulting in a new equilibrium with a before-tax (gross) rate of return of r^g , an after-tax (net) rate of return of r^n , and savings and investment of

FIGURE 1 Tax Distortions in a Closed Capital Market

$S_t = I_t$. The marginal effective tax rate on capital is the tax wedge ($r^g - r^n$) divided by r^g , and, as above, is the share of the before-tax rate of return on a marginal investment accounted for by taxes. This marginal effective tax rate reflects both supply- and demand-side taxes on capital. Importantly, in a closed capital market, taxes levied on *both* the demand side and the supply side of the capital market affect *both* savings and investment. In particular, under the traditional view, a reduction in supply-side taxes due to an increase in the dividend tax credit will shift the supply curve down from the post-tax equilibrium of $S_t = I_t$, reduce the marginal effective tax rate, and stimulate both savings and investment. Under the new view, there is no shift in the supply curve associated with a dividend tax cut and there will be no impact on savings and investment. Note, however, that a reduction in the capital gains tax will stimulate both savings and investment in a closed capital market under the new view.

If the capital market is open to international financial flows, and Canada is a small participant in international financial markets in the sense that domestic savings and investment have no impact on the international interest rate, then the equivalence between supply- and demand-side taxes on capital breaks down, with significant implications for tax policy. Boadway and Bruce³¹ were the first to argue that efforts to mitigate the double taxation of dividends at the shareholder level (by way of a personal dividend tax credit) would have no effect on investment in an open economy. This is because the dividend tax credit is applied on a residence basis, and foreign

31 Robin Boadway and Neil Bruce, "Problems with Integrating Corporate and Personal Taxes in an Open Economy" (1992) vol. 48, no. 1 *Journal of Public Economics* 39-66.

shareholders are not eligible to receive the credit. Devereux and Freeman³² extend Boadway and Bruce and examine other assumptions regarding the characteristics of marginal investors in a small open economy. They show that the impact of the dividend tax credit on investment varies depending on whether the marginal shareholder is domestic or foreign. They also show that the Boadway and Bruce results are a special case of a more general model. In particular, in a “not so small” open economy, dividend taxes on domestic investors can affect investment.

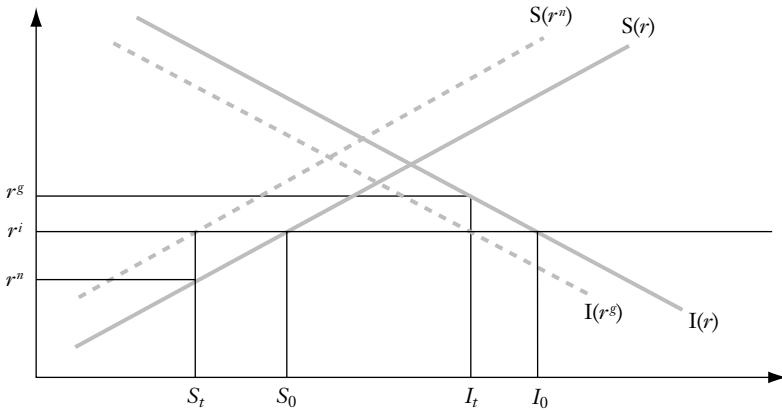
Figure 2 illustrates the pure open capital markets case when the marginal shareholder is a foreign investor. The internationally determined required after-corporate-tax rate of return on capital is r^i . Prior to the imposition of taxes, domestic investment is I_0 and the domestic supply of savings is S_0 . The key insight here is that the link between the supply and demand sides of the capital market is broken in a small open economy with perfectly mobile capital. For the case shown in the figure, the domestic demand for capital exceeds the domestic supply, with the residual ($I_0 - S_0$) provided by foreign investors. The imposition of demand-side taxes on corporations shifts the demand curve down, yielding a before-tax rate of return of r^g and reducing domestic investment to I_t . Supply-side taxes shift the supply curve up, yielding an after-tax rate of return of r^n and reducing domestic savings to S_t . The marginal effective tax rate on investment, owing to demand-side taxes at the corporate level, is $(r^g - r^i)/r^g$. The marginal effective tax rate on savings, owing to supply-side taxes at the personal level, is $(r^i - r^n)/r^i$. The distinction between the marginal effective tax rates on investment and savings reflects the disconnect between investment and savings in a small open capital market. Importantly, demand-side taxes have no impact on savings and supply-side taxes have no impact on investment in this case. Thus, while a reduction in the tax rate on dividends will encourage domestic savings (by shifting the supply curve to the right from the post-tax equilibrium), it will have no impact on domestic investment.

The closed and open economy models are, in many ways, caricatures. There are reasons to believe that neither characterization is in fact perfectly applicable to Canada. Feldstein and Horioka³³ were among the first to question the mobility of capital internationally, and thus the notion of a fixed international interest rate, by noting the high correlation between savings and investment within countries. In the small open economy model with perfectly mobile capital, because of the disconnect between the supply and demand sides of the capital market, there is no reason to expect savings and investment to be correlated at all. In contrast, in a closed economy savings and investment would be perfectly correlated.

32 Michael P. Devereux and Harold Freeman, “The Impact of Tax on Foreign Direct Investment: Empirical Evidence and the Implications for Tax Integration Schemes” (1995) vol. 2, no. 1 *International Tax and Public Finance* 85-106.

33 Martin Feldstein and Charles Horioka, “Domestic Savings and International Capital Flows” (1980) vol. 90, no. 358 *The Economic Journal* 314-29.

FIGURE 2 Tax Distortions in an Open Capital Market



Feldstein and Horioka interpret the high, though not perfect, correlation between savings and investment within countries as indicative of economies that are “more like” closed economies than open economies. However, several authors have questioned this interpretation, arguing that a high correlation between savings and investment is still consistent with internationally mobile capital if, for example, country-specific shocks affect both savings and investment.³⁴

Evidence in support of Feldstein and Horioka’s explanation that the correlation between domestic savings and investment is due to less than perfect international capital mobility is provided by Helliwell and McKittrick.³⁵ They argue that if this explanation is correct, then the correlation should be smaller, or even vanish entirely, across provinces or regions within a country. Helliwell and McKittrick combine Canadian provincial savings and investment rates with national data from other OECD countries and find that the strong correlation at the national level is completely absent among the provinces, thus providing support for the view that capital is not perfectly mobile internationally.

Perhaps a more likely possibility is that there is a segmented capital market in Canada, where some investors and some companies access international markets,

34 See Jeffrey D. Sachs and Andrew Warner, “Economic Reform and the Process of Global Integration” [1995] no. 1 *Brookings Papers on Economic Activity* 1-95, and Maurice Obstfeldt and Kenneth Rogoff, *The Six Major Puzzles in International Macroeconomics: Is There a Common Cause?* NBER Working Paper no. 7777 (Cambridge, MA: National Bureau of Economic Research, July 2000).

35 John F. Helliwell and Ross McKittrick, “Comparing Capital Mobility Across Provincial and National Borders” (1999) vol. 32, no. 5 *Canadian Journal of Economics* 1164-73.

and for whom the open economy characterization roughly applies, and where other investors do not access international markets, and for whom the closed economy characterization applies.

Table 2 contains marginal effective tax rate calculations for equity-financed investments in the open capital market case. The calculations reflect the traditional view of dividend taxation and, aside from the open capital market, reflect the same underlying data as table 1. (See the appendix for details.) Prior to the May 2006 budget, the total marginal effective tax rate on investment was 47.2 percent and the marginal effective tax rate on savings for a high-income taxpayer in Ontario was almost 39 percent.³⁶ The increase in the dividend tax credit lowers the marginal effective tax rate on savings to 25.4 percent, thereby stimulating domestic savings. There is no impact, however, on the marginal effective tax rate on investment, which remains unchanged at 47.2 percent in aggregate because of the disconnect between the demand and supply sides of the capital market in a small open economy. In this case, the dividend tax cut does nothing to stimulate domestic corporate investment.

SUMMARY AND CONCLUSIONS

This article has considered the academic literature on the economic effects of dividend taxation to evaluate the reduction in the tax rate on dividends announced in the May 2006 federal budget. It has also considered the impact of the proposed tax rules related to income trusts announced in October 2006.

Several questions were posed at the outset. Will the tax changes curtail the growth of income trusts? Can we expect the reduction in taxes on dividends to encourage savings and investment? Will the changes enhance economic efficiency? Unfortunately, our understanding of taxation and capital markets is such that the answers to some of these questions remain unsettled, and in each case the best answer is an unsatisfactory “perhaps” or “it depends.”

In terms of curtailing the growth of income trusts, the reduction in the tax rate on dividends implemented in the May 2006 budget went some way toward closing the door on trusts and, as stated in the budget documents, made “the total personal and corporate income tax on earnings distributed as dividends more comparable to the income tax paid on interest payments and income trust distributions.”³⁷ However, this was true only for taxpaying shareholders. Tax-sheltered shareholders (pensions funds, individuals investing by way of RRSPs, etc.) and non-resident investors continued to favour non-corporate flowthrough vehicles such as income trusts. Given the importance of these investors in Canadian capital markets, there remained a sizable clientele that favoured non-corporate flowthrough vehicles. The efficiency

36 This reflects a weighted average of the tax rate on dividends and the accrual-equivalent tax rate on capital gains, as well as the lack of inflation indexing in the taxation of investment income.

37 Budget Plan, *supra* note 1, at 77.

**TABLE 2 Marginal Effective Tax Rates on Equity-Financed Investments:
Open Capital Market, Traditional View**

	Pre-budget	Post-budget
		<i>percent</i>
Marginal effective tax rate on investments		
Equipment		42.3
Buildings		52.7
Land		37.0
Inventories		50.7
Average		47.2
Marginal effective tax rate on savings	38.9	25.4

costs associated with distortions between the corporate and non-corporate forms therefore continued to exist after the May budget, though they were somewhat moderated.

The proposed tax changes of October 2006, announcing a tax on income trust distributions, closed the door the rest of the way. Taken together, these two tax changes have levelled the playing field between businesses organized as income trusts and businesses organized as corporations. While the effective tax rate on investments made by income trusts has increased (as a result of the tax on distributions), the effective tax rate on investments undertaken by corporate entities has decreased (as a result of the enhanced dividend tax credit). Although the market capitalization of the income trust sector has increased substantially over the last several years (to just under \$200 billion), the non-corporate trust sector is an order of magnitude larger. On the whole, and viewed as a package, the two tax changes have lowered the overall effective tax rate on investments in Canada and eliminated some non-neutralities in the process. Moreover, the changes have restored some integrity to the tax system and eliminated the tax revenue leakage, which was quickly gaining momentum. In principle, these results give the government room to implement a more orderly reduction in taxes on capital income in Canada, in a way that is neutral across investors, investments, and industries.

Will the dividend tax cut implemented in the May 2006 budget “encourage savings, investment and economic growth”? Here the answer depends critically upon two things: whether the traditional view or the new view of dividend taxation is true, and whether Canada is best thought of as a closed capital market or as a small open economy on international financial markets. Under the traditional view of dividend taxation, in a closed capital market the dividend tax cut will reduce the marginal effective tax rate on capital and cause both savings and investment to increase, as claimed in the budget documents. Under the new view of dividend taxation, however, the tax cut will result in a revaluation of corporate shares with no associated increase in savings or investment. Even under the traditional view, if Canadian capital markets are open and capital is perfectly mobile, the dividend tax cut, while it should expand savings, will do little to encourage new investment.

APPENDIX: FORMULAS AND DATA FOR TABLES 1 AND 2

Following the basic methodology described in Boadway³⁸ and elaborated on in McKenzie, Mansour, and Brûlé,³⁹ the before-tax rate of return on capital (net of depreciation) required to cover a firm's opportunity cost of funds and the taxes associated with an investment in depreciable capital (equipment, buildings, land) is

$$r^g = (1 + t_s)(r_c - \pi + \delta)[1 - uZ + t_k(1 - u)/(r_c + \delta)]/(1 - u) - \delta, \quad (1)$$

where u is the corporate income tax rate; r_c is the firm's after-tax nominal discount rate (defined in more detail below); π is the inflation rate; δ is the economic depreciation rate; $Z = \alpha/(r_c + \alpha)$ is the present value of the tax depreciation deductions on \$1 of capital, where α is the appropriate capital cost allowance rate; t_s is the implicit sales tax rate on capital due to provincial retail sales taxes; and t_k is the provincial capital tax rate.

For inventory capital, the equivalent expression is

$$r^g = [r_c - \pi + u\pi + t_k(1 - u)]/(1 - u), \quad (2)$$

which reflects the inflation tax on inventories due to the use of first in, first out (FIFO) accounting for corporate income tax purposes.

These expressions clearly reflect taxes levied on the demand side of the capital market, such as the corporate income tax, provincial capital taxes, and implicit sales taxes on capital. Taxes levied on the supply side of the market are reflected in the nominal discount rate, r_c . The precise expression for r_c depends on the firm's marginal source of funds and the extent to which capital is internationally mobile.

Closed Capital Markets

If the after-tax real rate of return required by investors is r^n , the firm's discount rate is

$$r_c = (r^n + \pi)/(1 - T_e), \quad (3)$$

where T_e is the marginal tax rate on equity income faced by the marginal investor.

As discussed in the text, T_e depends upon which view of dividend taxation is adopted. Under the traditional view, the marginal source of financing is new share issues, and the marginal tax rate on equity income in equation (4) is a weighted average of the tax rate on dividends and the accrual-equivalent tax rate on capital gains:

$$T_e = \gamma\theta + (1 - \gamma)c, \quad (4)$$

38 Boadway, *supra* note 16.

39 McKenzie, Mansour, and Brûlé, *supra* note 16.

where γ is the dividend payout ratio; θ is the investor dividend tax rate; and c is the accrual-equivalent capital gains tax rate.

Under the new view, the marginal source of equity financing is retained earnings and the marginal tax rate on equity income in equation (3) is

$$T_e = c. \quad (5)$$

The marginal effective tax rate on investment and savings in a closed economy is the proportion of the firm's pre-tax rate of return that is needed to cover its total tax cost:

$$METR_C = (r^g - r^n) / r^g. \quad (6)$$

Open Capital Market

In the case of an open capital market with internationally mobile capital, the firm's discount rate— r_c in the user cost of capital expression given in equation (2)—is equal to the internationally determined real cost of funds, r^i , plus the domestic rate of inflation: $r_c = r^i + \pi$.

The marginal effective tax rate on investment in a small open economy is then

$$METR_i = (r^g - r^i) / r^g. \quad (7)$$

The weighted average real after-personal-tax rate of return on equity to domestic savings is

$$r^n = (r^i + \pi)[1 - \gamma\theta - (1 - \gamma)c] - \pi \quad (8)$$

and the marginal effective tax rate on savings is

$$METR_s = (r^i - r^n) / r^i. \quad (9)$$

Data

The following assumptions are made in the calculation of the marginal effective tax rates in tables 1 and 2:

r^n (closed capital markets)	0.04
r^i (open capital markets)	0.04
π	0.03
δ	0.205 (equipment), 0.09 (buildings), 0 (land)
α	0.322 (equipment), 0.048 (buildings), 0 (land)
u	0.3512
θ	0.325 (pre-budget), 0.17 (post-budget)
c	0.12
γ	0.5
t_s	0.01 (equipment), 0 (buildings), 0 (land)
t_k	0.003

To aggregate over the four types of capital in order to obtain a total marginal effective tax rate, an r^g is calculated for each type of capital and a weighted average r^g is then calculated using the weights 0.52, 0.28, 0.18, and 0.02 for equipment, buildings, land, and inventories, respectively. These parameters generally reflect the Canadian economy and tax system on an aggregate basis.⁴⁰

40 I thank the C.D. Howe Institute and Duanjie Chen for supplying the underlying data.