The Interaction of Federal and Provincial Taxes on Businesses

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December 1996

WORKING PAPER 96-11

Prepared for the
Technical Committee on Business Taxation

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Cette publication est également disponible en français.

Abstract

This paper provides an analysis of the ways in which the interaction between federal and provincial taxes on businesses can create distortions in the levels and types of taxation and identifies ways in which these distortions can be minimized or even eliminated. Distortions arise when full account is not taken of the effects of one level of government's tax policy choices on the other level's budget. Where this is the case, government choices of both the levels and types of taxation are likely to be sub-optimal relative to a national optimum. We identify and examine five key sources of such distortions in the Canadian tax system. These are: (i) federal and provincial co-occupation of the corporate income tax field, (ii) taxes levied at one level of government that are creditable/deductible for the purpose of calculating taxable income at another level, (iii) treatment of one level of government's resource taxes under the tax system of the other level of government, (iv) treatment of one level of government's tax incentives under the tax system of the other level of government, and (v) tax treatment of Crown corporations.

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1. Introduction

The allocation of taxing powers in Canada is such that the provinces have few limitations on their ability to raise revenues. Although the Constitution grants the federal government access to any revenue source, it has chosen to leave property taxes to the provincial/municipal governments. The only revenue sources for which the provinces do not have access are customs duties and non-resident withholding taxes. Thus, both the federal and provincial levels of government levy direct and indirect taxes, and co-occupy several tax fields.

The fact that a high proportion of revenues in Canada is raised in co-occupied tax fields leads to there being considerable interaction between the federal and provincial tax systems. This interaction distorts both the degree and type of taxation chosen by each level of government and, as a result, interferes with the overall efficiency of the economy. The purpose of this paper is to examine the inefficiencies created by the interaction of federal and provincial taxes on businesses, and to identify ways in which these distortions can be minimized or eliminated.

2. Background

Taxes on businesses in Canada include corporate income taxes, individual taxes on unincorporated business, capital taxes, payroll taxes, property and other local taxes, and resource taxes.[1] The personal income tax is the most important tax revenue source in Canada. This fact reflects the value judgement that income derived from labour and capital is the most suitable measure of an individual's well-being or "ability-to-pay." The most important tax on businesses is the corporate income tax. The corporate income tax base equals revenues net of current costs, interest payments, and depreciation deductions, and roughly constitutes the income that accrues to the corporation's shareholders (i.e. equity income). Because income paid out to shareholders is

[1] Although payroll taxes are levied on both employers and employees, it is unclear who actually bears their burden (see, for example, Dahlby (1992)). If wages fall to offset the tax, then the tax is levied on labour income and therefore should be considered as part of the personal income tax. If the fall in wages is not enough to offset the tax and if firms do not shift the burden forward to consumers, then employers bear some of the tax in the form of higher wage costs.

taxed at the personal level, the question naturally arises as to why a further tax at the corporate level exists. It is necessary, then, to provide a justification for why governments choose to levy a corporate income tax. Doing so will assist us in identifying the distortions created by the interaction of federal and provincial taxes on businesses. Following this, we provide a theoretical overview of the inefficiencies that may occur because of the interaction of federal and provincial taxes.

2.1 Justification for the Corporate Income Tax[2]

Several arguments have been made in support of a corporate income tax as part of an optimal tax system. The one described here is important for our purposes due to its role as a withholding tax on income that cannot be taxed properly at the personal level. In fact, the Carter report singled out this role as the only justification for the corporate income tax. The need for withholding arises from two distinct sources. The first is earnings retained in the corporation that give rise to capital gains. Without the corporate income tax, individuals can postpone taxation by reinvesting in the corporation, because capital gains are taxed in the personal income tax only when realized. The corporate income tax, then, acts as a withholding device on retained earnings that yield capital gains, which cannot be taxed on an accrual basis in the personal income tax.[3] The other way in which the corporate income tax acts as a withholding device is against income earned by foreign shareholders. The personal income tax in Canada is a residence-based tax. Consequently, equity income earned in Canada by foreign residents is not taxed at the personal level. Thus, without the corporate income tax, this income would escape taxation in Canada altogether.

A counter-argument to the foregoing justification is that income from capital should not be part of an optimal tax system for a small open economy such as Canada's.[4] The supply of capital in a small open economy is perfectly elastic at the foreign rate of return. Therefore, a tax on capital income such as the corporate income tax is not borne by capital, but is instead shifted to

[2] For a more detailed discussion, see Boadway, Bruce, and Mintz (1987) pp. 35-41.
[3] If dividends are taxed at the personal level and are not deducted at the corporate level, then that income is taxed twice. In Canada, the personal and corporate income taxes are integrated by allowing individuals a dividend tax credit, to partially eliminate the double taxation.
[4] See, for example, Diamond and Mirrlees (1971).

less-mobile factors such as labour. Optimal taxation theory, then, dictates that labour should be taxed directly because workers are no worse off and the allocation of capital is not thereby distorted.

One explanation for the existence of taxes on capital income in small open economies has been suggested by Gordon (1992), and follows from the justification for the corporate income tax as a withholding device on income earned by foreign shareholders. If foreign shareholders are taxed by their own governments on their income earned in Canada, then the income is subject to double taxation.[5] A common convention for avoiding double taxation is for the home country to provide a credit for corporate income taxes paid in Canada. If capital-exporting countries do provide such a credit, then there is an incentive for capital-importing countries like Canada to tax income accruing to foreigners. In this way, a capital-importing country gains tax revenues at the expense of foreign governments without losing foreign investment. Indeed, not to tax it is to forgo a pure revenue transfer from foreign treasuries.

Another justification for the existence of the corporate income tax is its potential as a non-distorting tax on pure profits. This is especially true for the resource industries. Resource industries generate sizable rents. As a result, a major motivation for taxing these industries is to capture these rents in a non-distorting way. In an attempt to do so, the federal and provincial governments levy a number of taxes on resource industries that vary considerably across industries and provinces. The end result is a system that is far from non-distortionary.

Although existing corporate income tax systems are not designed to tax rents and thereby distort the marginal investment decisions of firms, if investment costs are sunk, then taxation of the resulting income is non-distortionary.[6] This issue was raised in a seminal paper by Doyle and van Wijnbergen (1994) and has been used as an explanation for the policy of levying low or zero (a tax holiday) rates in the early stage of a firm's production process, followed by a high tax rate after a specified period of time has elapsed. In the early stages of production, the level of

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[5] Note that the dividend tax credit allowed in the personal income tax only applies on domestic holdings.

[6] Note that investment need not be irreversible for positive (and possibly high) tax rates to be optimal. What is required, as Wen (1996) has shown, is costly changes to the capital stock.

investment is variable, and the corporate income tax is therefore distortionary. However, after fixed investment costs have been incurred, the government has an incentive to raise its tax rate, so as to extract a larger share of firm profits. Firms know the incentive facing the government to levy high tax rates in the future, and therefore invest only if they are granted a very low or zero tax rate early on. This incentive may help to explain why general tax rates tend to be high and why several provinces offer tax holidays to new firms.

2.2 Inefficiencies Arising from the Interaction of Taxes

We now provide a theoretical description of the inefficiencies that can arise from the interaction of tax systems within a federation. In the next section, we apply what we have discussed here to the Canadian system of business taxation.

The implications of tax interactions for the efficiency of the tax system depend on how each government, when choosing its tax policy, treats the well-being of citizens residing in other jurisdictions and on how it believes other governments will respond to its choices. Fiscal externalities occur if full account is not taken of the effects of policy choices on non-residents either directly or indirectly via their effects on other governments' budgets. Consequently, government choices of both the level and type of taxation are likely to be suboptimal relative to a national (or global) optimum.

It is important to emphasize that the policies chosen by governments depend on the way governments respond to one another's choices. To examine this theoretically, it is first necessary to make assumptions regarding government behaviour. For example, it may be reasonable to assume that each of the several provinces perceives itself to be a small player in the federation, and therefore makes its policy choices, taking as given those adopted by the federal government.[7] On the other hand, since there is only one federal government, it seems plausible to assume that it takes into account the effect of its choices on the provinces. The federal government can then be in a position to reduce or even eliminate fiscal externalities occurring at the provincial level, by an

[7] This assumption may be disputed based on the fact that some provinces such as Ontario have a relatively large share of the economic activity in Canada, and may therefore perceive themselves to be large players within the federation.

appropriate choice of policies that take into account the response of the provinces. Note, however, that it may be costly for the federal government to do so because it may require corrective transfers to the provinces, or the federal government may have to forego some tax revenues.[8]

Dahlby (1994, 1995) and Mintz (1992) distinguish between two types of fiscal externalities. One affects taxpayers' welfare directly by, for example, changing relative prices. The other affects taxpayers' welfare indirectly by affecting the tax revenues collected by their governments. The focus of this paper will be on the latter type of externality. Such an externality can be either horizontal or vertical, and we shall consider each in turn.

Horizontal Tax Externalities

Horizontal tax externalities may occur because of mobility of the tax base. For example, a decrease in province A's corporate income tax rate may induce capital to flow into province A and out of province B. The resultant contraction of B's tax base is a cost to B that A did not take into account when it made its tax policy decision. Consequently, if provinces neglect these costs, competition for mobile capital will put downward pressure on provincial tax rates. These tax rates will then become too low when compared to a national optimum.

The magnitude of the externality arising from tax competition also depends on how tax revenues are spent. Because tax revenues are used to finance some government expenditures that benefit businesses, businesses take them into consideration along with tax rates when making their investment decisions. Consequently, government expenditures provide another means by which provinces may compete for mobile capital. Since Canada is an open economy, pressures from tax competition arise at the international level as well. Consequently, if a provincial government or the federal government reduces its tax rate, capital may flow into Canada from abroad, depending, of course, on the crediting arrangements between countries. The recent reductions in statutory

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[8] See Dahlby and Wilson (1993), Dahlby (1995), Boadway and Keen (1996), and Boadway, Marchand and Vigneault (1996).

corporate tax rates in several countries may be seen as an indicator of the strength of the pressures exerted by international tax competition.

Counteracting the tendency for international competition to reduce tax rates are negative tax externalities imposed on foreign shareholders and foreign governments. The former occurs because the Canadian corporate income tax acts as a withholding device on income accruing to foreign shareholders. Thus, part of the burden of the Canadian corporate income tax is exported to citizens of other countries. For those countries that grant a foreign tax credit, part of the burden of the Canadian corporate income tax is exported to their governments. Since the federal and provincial governments likely do not consider the welfare of foreign shareholders or foreign governments when they choose their tax policies, this type of tax exportation provides an incentive to increase tax rates. It is important to note that tax crediting is not used in Canada as the method of eliminating double taxation of income earned in more than one province. Instead, a tax-allocation formula is used to allocate taxable income among the provinces. Recall from our discussion of the foreign tax credit in the corporate income tax that crediting for taxes paid in another jurisdiction can result in investment becoming insensitive to taxes levied there. As a result, competition to reduce statutory tax rates so as to attract mobile capital may not be as strong with crediting. Within Canada, however, tax competition occurs between the provinces because the tax-allocation formula does not eliminate the sensitivity of capital to differences in tax rates.[9] Tax competition created by factor mobility has prompted several economists to argue that taxation of mobile factors should be restricted to the national level.[10] Doing so would eliminate horizontal tax externalities within a nation. Thus, assigning the corporate income tax to the federal government would reduce the competition among the provinces that interferes with the efficient allocation of capital across the country.

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[9] The allocation formula uses two bases – gross revenues and payroll – to measure the proportion of total corporate activity carried on in a province. This has the effect of lessening the sensitivity of capital to differences in tax rates between provinces.

[10] For example, see Gordon (1983), Musgrave (1983), and Boadway (1992).

Vertical Tax Externalities

A vertical tax externality occurs when one level of government's tax-policy choice affects another level's budget. This may arise when, for example, more than one level of government occupies the same tax field. Then, if the tax base is sensitive to the tax rate, an increase in one level's rate may reduce revenues collected by another level. As a result, part of the cost of raising tax revenues at one level is exported to the other. This constitutes a negative fiscal externality and tends to result in tax rates that are too high relative to a national optimum. This type of externality is more likely to arise from provincial behaviour, since an individual province perceives itself to be a smaller player in the federation than the federal government does. Consequently, it is less apt to take into account the effects of its decisions on the federal budget. As discussed earlier, the federal government may at least be able to reduce the negative fiscal externality arising at the provincial level, because it is likely to take into account how the provinces respond to its choices, although it may be costly to do so.

We can illustrate how this type of tax externality may occur in the corporate income tax system. Figure 1 shows the domestic supply of savings schedule, S, as a function of the rate of return to savings. The schedule, I, is the investment demand schedule that relates the demand for capital to the rate of return on marginal investments. The Figure also incorporates the fact that Canada is a net importer of capital and is a small player in the world capital market. Because of this, we assume that Canada is a price-taker in international capital markets and that the supply of savings is perfectly elastic at the foreign rate of return, r^*. Consequently, the openness of the economy separates the domestic savings and investment decisions. Without any taxes, the amount of domestic investment and savings are I_1 and S_1, respectively. The supply of foreign savings is then $I_1 – S_1$.

We now introduce a corporate income tax levied at both the federal and provincial levels that raises the before-tax return on the marginal investment to $\hat{r}$ and is distortionary. The difference between $\hat{r}$ and r^* is the effective tax rate on investment, t, which incorporates all taxes levied on firms at both levels of government. Let t_f and t_p be the effective tax rates due to federal and provincial taxes, respectively. With the combined federal and provincial effective tax rate t, the level of investment falls to I_2. The level of domestic savings remains unchanged at S_1, and the level

of foreign savings falls to I_2–S_1. The provincial government collects tax revenues equal to area $A + B$, and the federal government collects revenues equal to $C + D$.

Suppose now that a tax change occurs at the provincial level that raises t_p to t_p', which reduces investment to I_3. As a result of this change, the provincial government gains revenue equal to area E but loses revenue equal to area B. The federal government loses revenue equal to area D. The loss in federal revenues constitutes the tax externality, because it was not taken into account by the province when it made its decision to increase its tax rate.

Assigning separate tax fields to the two levels of government may not eliminate the externality, however. The reason for this is that different taxes often share portions of the same base. For example, income-based taxes overlap with consumption-based taxes, and the payroll tax base overlaps with the personal income tax base. An alternative remedy has been suggested by Dahlby (1995) and Boadway and Keen (1996). They show that transfers between levels of government can be used to correct for the distortion created by overlapping tax bases.

Our discussion so far has ignored one very important aspect of the Canadian fiscal system that provides an incentive for provinces to levy tax rates that are too high relative to a social optimum. Smart (1996) was the first to consider this in a paper that examines the implications of the equalization program used to correct for inequality in provincial tax capacities.[11] He shows that a "have-not" province perceives the efficiency cost of raising its corporate income tax rate to be lower than it actually is, because any reduction in taxable income results in an increase in the equalization entitlement.[12] This increase in the entitlement masks both the distortion affecting the province's and the federal's (i.e. the vertical tax externality) tax base. Consequently, this distortion

[11] The program uses a formula that equalizes "have-not" provinces up to the average of five representative provinces (Quebec, Ontario, Manitoba, Saskatchewan and British Columbia). The formula is applied to 37 revenue sources. To determine the entitlement for each province, the formula applies a national average tax rate to the difference between the representative base and the province's base. Only those provinces that have positive entitlement over the totality of the 37 revenue sources (i.e. the "have-not" provinces) benefit from the program.
[12] This assumes that the increase in the province's tax rate has a negligible impact on the average tax rate and representative base used in the equalization formula. If this is not the case, then the "have-not" provinces realize that an increase in their tax rate increases their equalization entitlement through an increase in the average national tax rate but decreases it through a reduction in the representative base (the latter occurs only if they are one of the five representative provinces).

caused by the equalization program is stronger than the vertical tax externality and leads "have-not" provinces to levy high tax rates. Note that the equalization program affects the "have" provinces only indirectly, because payments to the "have-not" provinces are funded out of general revenues.

A different vertical tax externality occurs if one level of government's taxes are creditable/deductible when calculating taxable income of another level. This represents a transfer of tax revenue from one level of government to another and is therefore a type of tax exportation that leads to over-use of the tax. In addition to the effects of deductibility on the level of taxation, a further inefficiency is created when some types of taxes are favoured over others, because they are creditable/deductible, whereas others are not. This essentially lowers the burden of that tax on a province's tax payers relative to other non-deductible taxes and therefore distorts the tax mix. Eliminating deductibility eliminates these inefficiencies.

Several economists, however, are in favour of deductibility of provincial taxes from federal taxable income.[13] One argument for this is that, if a base is taxed by both levels and the tax is not used to provide benefits directly to provincial tax payers (i.e. it is not a benefit tax, but is, instead, an "ability-to-pay" tax), then the federal government should deduct the provincial tax from its taxable income, as this is meant to measure taxpayers' ability-to-pay. This argument, however, does not consider the fact that such deductibility creates tax externalities of the type described above.

3. Analysis of the Interaction of Federal and Provincial Taxes on Businesses

We now examine whether the interaction of federal and provincial taxes on businesses give rise to distortions either in the level or type of taxation or both. There are several provisions in the Canadian tax system that have the potential to do so. The most important of these are:

(i) federal and provincial co-occupation of the corporate income tax field;

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[13] For a more detailed discussion, see Break (1980).

(ii) taxes levied at one level of government that may be creditable/deductible for the purpose of calculating taxable income at another level;

(iii) the treatment of one level of government's resource taxes under the tax system of the other level of government;

(iv) the treatment of one level of government's tax incentives under the tax system of the other level of government; and

(v) the tax treatment of Crown corporations.

Before we examine these provisions in greater detail, it is important to mention at the outset that the magnitudes of the distortions in the tax system depend on the entire fiscal relationship between the federal and provincial governments. This relationship is continuously changing in ways that may enhance or diminish these distortions. Of particular importance for this are the trend toward greater decentralization to the provinces of expenditure responsibilities and taxing powers, and the reduction in federal transfers to the provinces as a means of reducing the deficit.

(i) Federal and Provincial Co-occupation of the Corporate Income Tax Field

Both the federal and provincial governments levy a tax on corporate income. The federal government has agreed to abate its corporate income tax by 10 percentage points, so as to allow the provinces room to levy their own tax. Quebec, Ontario and Alberta administer their own tax, and the remaining provinces have a tax collection agreement (TCA) with the federal government. Under this agreement, the federal government collects the tax in the participating provinces if they use the federal tax base. The provincial tax is levied on federal taxable income, and the provinces are free to choose their own rates. Also included in the TCA is the provision allowing provinces non-discriminatory tax credits. The tax bases of the non-participating provinces are similar to the federal one, and any differences between them arise primarily from special deductions and credits.

The TCA was introduced in 1962, and all provinces except Ontario and Quebec participated in it. The federal government abated its tax by 9 percentage points and all participating provinces took up the tax room thus made available. Manitoba and Saskatchewan, in fact, went beyond this and

levied a rate of 10 percent. In 1967, the federal abatement was increased by 1 percent and all provinces except Quebec increased their rates by 1 percent also.

Until 1975, the provinces levied one flat rate, and the federal government levied different rates for small and large firms. In 1975, British Columbia introduced a reduced rate for small businesses and raised its general rate from 12 to 13 percent. This decision by British Columbia was soon copied by other provinces and, by 1981, all provinces except Prince Edward Island had a differential rate structure. Rates for small businesses and favoured industries were (and still are) lower than the federal abatment, but the general rates were (and still are) above it. The most dramatic change was made by Quebec in 1981, when it introduced a lower rate of 3 percent for small businesses. Significantly, the explanation provided for such a dramatic change was that it was required to reduce capital flight from the province.

As part of the 1987 tax reform, the federal government lowered and simplified personal and corporate income tax rates and broadened the tax base. Table 1 shows that the response of the provinces to the reduction in the general and small-business federal corporate income tax rates for the years 1987 to 1995 has been mixed. Following the tax reform, those provinces that increased their rates, however, did not do so to the extent that the combined federal-provincial rates were thereby increased.

The structure of the Canadian corporate income tax system reflects an attempt to maintain some degree of uniformity while allowing the provinces some flexibility in their choice of tax policies. Uniformity is reflected in the use of a common tax base in the TCA and, for the non-participating provinces, one that is similar to that of the federal government. In addition, all provinces use the same formula to allocate corporate income earned in more than one province. Flexibility is reflected in the ability of the provinces to set their own rates and to provide special tax credits. This flexibility, however, can give rise to tax externalities of the type described in Section 2.2. Both horizontal and vertical externalities may occur in the corporate income tax system, because the federal and provincial governments co-occupy the corporate income tax field and the provinces are able to levy their own rates.

Horizontal Tax Externalities

The corporate income tax base is a mobile one, both within Canada and between Canada and the rest of the world. Section 2.2 described a horizontal tax externality that occurs when governments at the same level compete for a mobile tax base. The provincial corporate income tax fits this scenario. It is likely, then, that pressures exist for the provincial governments to reduce their rates so as to reduce capital flight.

Related practices are the granting of tax holidays to newly incorporated firms and tax credits to encourage investment in various activities. Both serve to differentiate one province's tax structure from another's and, as a result, interfere with the efficient allocation of capital within the country. Corporate tax revenues at both the federal and provincial levels are thus affected by these practices.

Given that the federal government's share of total corporate income tax revenues is diminishing, we should expect that pressures from tax competition between the provinces will become stronger if this trend continues. A diminished federal presence is likely to enhance the incentive for the provinces to engage in beggar-thy-neighbour policies that are disharmonizing and interfere with the efficient allocation of resources.

The situation in Canada wherein the provinces assume a large and growing importance in the corporate income tax field runs counter to the "rule" for tax assignment specifying that lower levels of government should not levy "ability-to-pay" type taxes on mobile factors such as capital. The situation is similar in the United States, because the states face no constitutional constraints in levying income taxes. In the United States, however, there is significantly less tax co-ordination between the federal and state levels. For example, there is no tax-collection agreement between them, as there is in Canada. Consequently, the state corporate income tax systems are less harmonized than they are in Canada. By contrast to both Canada and the United States, the states in Australia are constitutionally forbidden access to the corporate income tax field.

Counteracting the pressures from tax competition to reduce corporate income tax rates is the need for withholding described in Section 2.1. In addition, the need for withholding against income earned by foreign shareholders is the source of another inefficiency that was described in

Section 2.2, and is caused by the incentive to export part of the burden of the corporate income tax to foreign residents or governments. Recall that this incentive has also been used as a justification for the existence of corporate income taxes. The fact that Canadian rates are positive and relatively high indicates that this externality may be present alongside the one that is responsible for tax competition.

Vertical Tax Externalities

Also described in Section 2.2 is the vertical externality arising from co-occupation of the same tax base. Given that an individual province is likely to consider itself a smaller player within the federation than the federal government, it may make its tax-rate choice without accounting for its effect on the federal government's budget. The province then underestimates the cost of its choice and levies a tax rate that is too high relative to a national optimum. Bev Dahlby (1994) has provided evidence that this type of distortion is significant in the Canadian personal income tax, especially for provincial surtaxes. Note that this externality may also arise because of federal government behaviour. However, since the federal government is a large player within the federation, it seems more plausible that it does take into consideration the effect of its decisions on the provinces and also considers how they may react to them.

It is important to note that the diminished importance of the federal government in the corporate income tax field has likely reduced the magnitude of this type of vertical tax externality. The reason for this is that, for a given level of investment, a lower federal share of corporate tax revenues reduces the ability of the provinces to shift part of the burden of their corporate income tax onto the federal government. Indeed, if either level of government reduced their tax rate to zero, the vertical fiscal externality would be eliminated.

Provincial Response to a Change in the Federal Corporate Income Tax Rate

The discussion so far has focussed on fiscal externalities that are created by federal and provincial co-occupation of the corporate income tax field. The magnitudes of these externalities are established given the policies chosen by other governments. To determine

the effects of tax policy changes, however, we must consider how the governments respond to one another's choices.

To illustrate this, suppose we consider how the provinces would respond to a reduction in the federal corporate income tax rate. The issue is whether the federal government has to be concerned that the provinces would offset the reduction in the federal rate by increasing their rates.

The corporate income tax base is sensitive to changes in the combined federal-provincial tax rate, and this sensitivity is likely to increase as that rate increases. The provinces are aware of this when choosing their rates. Thus, if the federal government reduces its tax rate, the provincial rates may no longer be optimal, and the provinces will therefore change them. Given the initial provincial rates, a reduction in the federal one provides the provinces with more tax room and may result in an increase in the corporate income tax base. These two effects constitute an incentive for the provinces to increase their rates.

Also important for the incentive just described is the fact that, for an open economy such as Canada's, the amount of tax room available is constrained by international levels. The provinces take this overall level into account when choosing their rates. A reduction in the federal rate relaxes the constraint on available tax room and therefore induces the provinces to raise their rates.

It is likely, then, that the provinces would respond to a reduction in the federal tax rate by increasing theirs. However, it may be reasonable to assume that the incentive for them to do so may not be so strong as to result in an increase in the combined federal-provincial rates. Indeed, this has been demonstrated with respect to the 1987 tax reform. We now consider the manner in which the federal government makes up its revenue loss, since this affects revenues collected by the provinces. It is obviously difficult to examine in detail all revenue-neutral tax changes available to the government, and we therefore consider only general ones. First, any incentive for the provinces to increase their rates will be weaker if the federal government makes up for the loss in revenue by broadening the corporate income tax base. The reason for this is that the provincial tax base is the same as the federal one for those provinces participating in TCA and there has been

a tendency for the non-participating provinces to also adopt federal changes to the base. However, if the federal government makes up for the loss in revenue by, for example, eliminating deductibility of provincial payroll and capital taxes – an issue that will be discussed in more detail below – then the incentive for the provinces to increase their tax rates may be stronger, because the bias in favour of deductible taxes is eliminated. The incentive to increase rates would also arise if the federal government makes up its revenue loss by reducing transfers to the provinces. The provinces may then seek to offset the reduction in transfers by raising their rates.

In summary, it is likely that the federal government can achieve an overall reduction in corporate income tax rates by lowering its rate. The provinces may respond by increasing their rates, but not to the extent that the combined federal-provincial rates consequently increase. Furthermore, the overall reduction in rates will be larger if the federal government offsets its revenue loss by broadening the corporate income tax base in a way that simultaneously expands provincial revenues.

(ii) Deductibility of One Level's Taxes from Taxable Income of Another Level

In Canada, provincial capital and payroll taxes are deductible when calculating federal corporate taxable income. An interim measure is currently in place until a final solution addressing deductibility has been implemented. The interim measure denies deductibility of any increases in provincial payroll and capital taxes for those provinces that have not harmonized their sales taxes with the federal Goods and Services Tax (GST). Section 2.2 explained that deductibility of provincial taxes is a type of tax exportation, because part of the burden of the provincial tax is shifted to the federal government. This creates a bias in favour of the deductible tax and erodes the federal tax base. We are not aware of any empirical studies of the effects of deductibility in Canada. However, for the United States, Feldstein and Metcalf (1987) found that deductibility of state and local taxes have substantially increased their use. In Canada, the federal government has shown concern that deductibility may indeed have led provinces to rely more heavily on these types of taxes. Such concern prompted the federal government in 1976 to eliminate deductibility of provincial resource royalties from the federal corporate income tax and to replace it with a resource allowance. In addition, as already described above, the rapid growth in provincial payroll

and capital tax revenues has led the federal government to deny deductibility of any increases in them. A possible consequence of eliminating deductibility is a change in the provincial tax mix in favour of other taxes such as the corporate income tax.

(iii) The Tax Treatment of Natural Resources

The *Constitution Act*, 1867, assigned ownership of natural resources to the provinces. The provinces were, however, prohibited from levying indirect taxes such as royalties on natural resources, except for the use of resources from Crown property. In 1982, that Act was amended to allow provinces to levy indirect taxes on natural resources. Thus, with the passage of the *Constitution Act, 1982*, the provinces now levy royalties and other taxes on privately owned resources in the same way as resources from Crown land. The *Constitution Act*, 1867 also grants the federal government the power to tax natural resources through its general taxing power. As a result of this shared power to tax natural resources, there is considerable interaction between the tax systems of the two levels of government.

Both the federal and provincial governments levy a corporate income tax on all resource firms except for some in the electricity industry.[14] The federal corporate income tax paid by resource industries resembles that for firms in other industries. There are differences, however, in the inclusion of special provisions for expenses and the resource allowance introduced to compensate for the elimination of deductibility of provincial royalties. The provincial corporate income tax paid by resource industries resembles the federal one. However, a significant difference is that Alberta, Saskatchewan and British Columbia allow deductibility or crediting of royalties and mining taxes in excess of the federal resource allowance.

In addition to the corporate income tax, the provinces levy a host of different resource taxes with special deductions and allowances that vary among industries and between provinces, and attempt to capture a share of the rents generated by the resource industries. For example, the oil and gas industries (primarily in Alberta, British Columbia and Saskatchewan) pay royalties, and

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[14] Electricity is supplied by Crown corporations in all provinces except Alberta and Prince Edward Island. Resource rents are transferred to consumers through the regulation of electricity prices.

exploration and development rights may be sold by provincial auction. The method of assessing royalties varies among the provinces according to whether the rate is applied to production, revenues, or both. The mining industries pay profits taxes (except in British Columbia and Saskatchewan), cash flow taxes (in British Columbia and Saskatchewan), and minimum taxes (in Saskatchewan, British Columbia, Alberta, New Brunswick and Nova Scotia). Firms in the forestry industry pay stumpage fees, and in Quebec and British Columbia a logging profits tax is also applied.

We now consider the implications of the interaction between federal and provincial taxes on natural resource firms. First, the sizable rents generated by resource industries provide incentives for both levels of government to compete for these rents using their taxing powers. This vertical tax competition can result in excessive taxation of the resource and suboptimal revenues collected by both levels of government.[15] Conflict between the two levels of government regarding which level has the right to tax resources surfaced in the 1970s during the energy crisis. It is true that the amendment to the Constitution has clarified the provinces' rights in this area, but it has not clarified how rents are to be shared between the two levels. Consequently, should another shock to international commodity markets occur, it is likely that conflict between the two levels will resurface.

The issue of which level of government should have access to natural resource rents is a complicated one. Because natural resources are immobile, they satisfy one "rule" for tax assignment in that generally lower-level governments should tax those factors that have lower interjurisdictional mobility.[16] However, inefficiencies are created by the highly unequal distribution of resources across provinces. Because the provinces own and have the constitutional right to tax natural resources in their respective provinces, there is considerable variation between the provinces in access to resource revenues. Consequently, differences in net fiscal benefits (the difference between what individuals pay in taxes and what they receive in public goods and services) exist between the provinces. Given that labour is somewhat mobile between provinces,

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[15] This has also been a concern in Australia. Like the provinces in Canada, states in Australia have been granted ownership of natural resources.
[16] For example, see Musgrave (1983).

differences in net fiscal benefits interfere with the efficient allocation of labour across the country. The equalization program does not correct for this because Alberta is excluded from the five province standard in the equalization program. In addition, variations in resource revenues in "have-not" provinces affect federal transfers to these provinces.

A further issue is that provinces that have market power over the price of commodities can use tax policies to increase world prices. This harms international and domestic consumers. Note, however, that the federal government has exclusive responsibility for matters pertaining to international trade. Thus, provincial tax policies vis-à-vis natural resources have the potential to impinge on federal trade policies.

The co-occupation of the corporate income tax field gives rise to the same distortions arising from horizontal and vertical externalities in the resource industries as was described earlier. The main difference between resource and other industries occurs with the provincial resource taxes. Because of the variety of taxes, exemptions and special deductions, it is difficult to identify all the inefficiencies that they create. However, because some provincial resource tax bases interact with the income tax base, there is potential for considerable interaction between these taxes and the federal corporate income tax. Consequently, inefficiencies arising from overlapping tax bases and deductibility/crediting are likely to occur with the provincial resource taxes.

(iv) The Treatment of One Level of Government's Tax Incentives Under the Tax System of the Other Level of Government

Both the federal and provincial governments offer a variety of tax incentives to firms. Examples of federal incentives include an investment tax credit for firms located in the Atlantic provinces and the Gaspé region, and for firms engaged in research and development, a corporate tax reduction on manufacturing and processing profits, and a small business tax deduction for Canadian-controlled private corporations. The provinces offer a large range of incentives that include corporate tax holidays; tax deductions for small firms and firms engaged in manufacturing and processing; and tax credits to encourage scientific research and investment by private-venture

capital corporations in provincial companies.[17] A primary objective for a province when granting tax assistance to firms is to differentiate its tax structure from those of other provinces in a way that encourages investment in specific activities. The federal government shares the latter part of this objective when employing its own incentives. However, it wishes to discourage the employment of discriminatory tax incentives (although it employs its own incentives to encourage investment in slow-growth regions). By favouring some firms and regions over others, tax incentives distort the allocation of resources across industries and across provinces. Our aim in this section is to examine how the overall efficiency of the tax system is affected by the interaction of tax incentives between the two levels of government.

When the federal and provincial governments provide similar assistance to firms, the assistance of the two levels of government necessarily overlaps, and this further reduces the efficiency of the tax system. The federal government may therefore wish to offset provincial assistance with a reduction in its own. The federal government does offset (at least partially) some but not all provincial tax incentives. For example, some provincial assistance for research and development expenditures reduces the qualifying amount for the federal investment tax credit. In addition, other types of provincial incentives may be included as taxable income at the federal level, independently of whether the federal government has a similar incentive. Such behaviour on the part of the federal government reduces the effectiveness of provincial tax incentives and thus reduces the desire for the provinces to employ them.

Provincial tax assistance to firms that takes the form of a reduced corporate income tax rate or a tax holiday is not as easily offset by the federal government. The provinces, whether they participate in the TCA or not, are free to choose their own corporate income tax rates, and the federal tax abatement for provincial corporate taxes is independent of actual taxes paid to a province. The federal government may wish to discourage the provinces from employing beggar-thy-neighbour tax policies by modifying its own rate to offset provincial measures.

[17] Recall that provinces participating in the TCA are allowed non-discriminatory tax credits. In practive, however, provinces have been allowed credits that can be described as discriminatory.

However, this would require that its rate vary between provinces and between firms within a province and would seemingly be difficult to do.

(v) The Tax Treatment of Crown Corporations

The tax treatment of Crown corporations in Canada creates both vertical and horizontal externalities. Crown corporations established by one level of government are exempt from taxation by other governments. This provides an incentive to take over private corporations, so as to appropriate tax revenues that would have accrued to the other level of government.

Crown corporations also create horizontal inefficiencies when provinces differ among themselves with regard to whether corporations are privately or publicly owned. For example, provincial Crown corporations may be able to provide goods and services at low cost, because they do not have to pay federal taxes and because their objective is not to earn a market rate of return on investments. If the goods and services are used as inputs in other industries, then provinces can use such Crown corporations to attract firms. This is especially important for the utilities sector.

4. Conclusion and Recommendations

Our discussion has examined the distortions created by the interaction of federal and provincial taxes on businesses. Given the importance of both levels of government in the major tax fields, the distortions arising from interactions between the two levels are likely to be large. The most important tax on businesses in Canada is the corporate income tax. One frequently encounters in the literature the argument that corporate income tax rates in small open economies such as Canada's should by competitive action approach zero because of the high mobility of capital. This is definitely not the case in Canada. Our discussion has identified reasons why governments have an incentive to levy positive corporate income tax rates, and we summarize them below. Then, we identify ways in which the distortions arising from the interaction of federal and provincial taxes on businesses can be reduced or eliminated.

Reasons for Positive Canadian Corporate Income Tax Rates

(1) The supply of capital may be less than perfectly elastic.

(2) Capital-exporting countries often provide a foreign tax credit to avoid double taxation. By taxing income accruing to foreigners, capital-importing countries then gain tax revenues at the expense of foreign governments.

(3) High tax rates can reflect the fact that some investment is costly to reverse. In such instances, taxation may be non-distortionary.

(4) The equalization program provides an incentive for "have-not" provinces to levy high tax rates because increases in equalization transfers insulate their tax bases from changes in their own rates.

(5) The vertical overlap of tax bases creates an incentive for provinces to shift part of the burden of tax increases onto the federal government.

Recommendations

1) Since capital is highly mobile, tax competition among the provinces can create significant distortions that are disharmonizing and interfere with the efficient allocation of capital within the federation. Competition arises despite the TCA because the provinces are permitted to choose their own rates, and to grant special credits and deductions that serve to differentiate one province vis-à-vis another. One way to eliminate inefficiencies arising from tax competition is to assign the corporate income tax solely to the federal government. This is obviously not a feasible option in Canada. However, these inefficiencies can be minimized by the federal government assuming a more dominant role in the corporate income tax field while maintaining a TCA with the provinces. The provinces are more likely to agree to a diminished role in the corporate income tax if they are compensated with additional tax room in another tax field. One possibility to consider would be to transfer tax points from the GST to the provinces.

2) The distortion arising from the vertical overlap of the same tax base cannot easily be eliminated because of the interactions between different tax bases. However, in light of recommendation (1), it is best to assign the corporate income tax field to the federal government, or, at the very least, to maintain a dominant federal role.

3) Deductibility of provincial payroll and capital taxes from federal taxable income should be eliminated. Deductibility erodes the federal tax base and creates a bias in favour of the deductible tax.

4) The federal government should not attempt to make up the loss in revenues to the provinces from elimination of deductibility of provincial payroll and capital taxes by increasing the corporate income tax abatement. Doing so would reduce the importance of the federal government in the corporate income tax field and would run counter to recommendations (1) and (2). The revenue loss should, instead, be made up by broadening the tax base in a way that is passed on to the provinces.

5) The five-province-standard equalization program provides an incentive for "have-not" provinces to levy high tax rates because any reduction in the tax base resulting from an increase in the province's tax rate is offset by an increase in its equalization transfer. This incentive arises because the transfer is a function of the province's actual base. One remedy for this would be to make equalization transfers a function of a province's potential tax base. Doing so would remove the influence of transfers on a province's tax effort.

6) There are four issues in the area of taxation of natural resources that create the potential for conflict between the two levels of government: (i) the provinces have been assigned ownership of natural resources and have the right to tax them; (ii) the federal government has the right to tax resource industries through its general taxing powers; (iii) the federal government has exclusive authority in matters of international trade; and (iv) the *Constitution Act*, 1982 commits both levels of government to the principle of equalization. As a general recommendation, negotiations between the provinces and the federal government should take place regarding the sharing of natural resource tax revenues. In addition, the present equalization program needs improvement for the following reasons. First, primarily because Alberta is not included in the five province standard, full equalization of resource revenues is

not achieved. Second, the program discriminates against "have-not" provinces because their resource revenues are fully equalized. Third, the program employs a gross rather than net equalization formula. Lastly, equalization transfers should ideally be a function of the provinces' potential rather than actual bases.

7) The fact that natural resource endowments are unequally distributed among the provinces creates the potential for mobile factors to locate in resource-rich provinces because of differences in fiscal capacity. Federal government control of resource taxes would eliminate this. However, given that the provinces have been assigned ownership of resources and have the right to tax resource industries, this option is not feasible. An alternative is an equalization program that properly equalizes resource revenues. Thus, the problems with the current program outlined in recommendation (6) need to be solved.

8) The exemption of Crown corporations from taxation by other governments leads to differential tax treatment of private and public firms and provides an incentive for governments to take over private companies. One remedy for this would be to assign separate tax fields to the two levels of government and to allow taxation of Crown corporations by both levels.

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FIGURE 1

Vertical Tax Externality in Corporate Income Tax

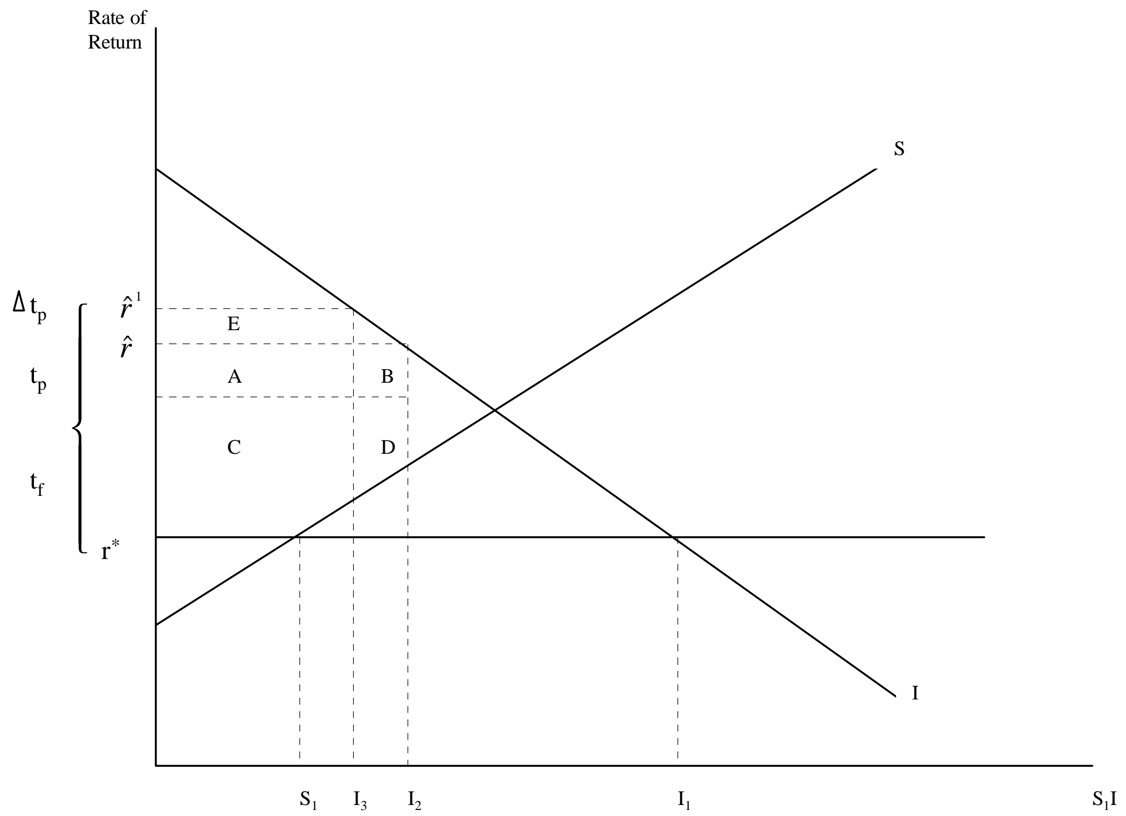

TABLE 1

Federal and Provincial Corporate Income Tax Rates, 1987-95

Year	Federal	Nfld.	PEI	NS	NB	Que.[*]	Ont.	Man.	Sask.	Alta.	BC
1987	G 36.57 S 14.94	G 16.00 S 10.00	G 15.00 S 10.00	G 15.00 S 10.00	G 15.00 S 5.00	G 5.9/ 13.94 S 3.22	G 15.50 S 10.00	G 17.00 S 10.00	G 17.00 S 10.00	G 14.01 S 5.00	G 15.00 S 9.51
1988	G 32.45 S 13.39	G 16.00 S 10.00	G 15.00 S 10.00	G 15.00 S 10.00	G 16.00 S 5.00	G 5.9/ 13.94 S 3.22	G 15.50 S 10.00	G 17.00 S 10.00	G 15.00 S 10.00	G 15.00 S 5.00	G 14.00 S 10.00
1989	G 28.84 S 12.84	G 16.50 S 10.00	G 15.00 S 10.00	G 15.00 S 10.00	G 16.00 S 9.00	G 6.16/ 14.56 S 3.36	G 15.50 S 10.00	G 17.00 S 10.00	G 15.00 S 10.00	G 15.00 S 5.00	G 14.00 S 9.00
1990	G 28.84 S12.84	G 17.00 S 10.00	G 15.00 S 10.00	G 16.00 S 10.00	G 16.00 S 9.00	G 6.33/ 14.95 S 3.45	G 15.50 S 10.00	G 17.00 S 10.00	G 15.00 S 10.00	G 15.00 S 6.00	G 14.00 S 9.00
1991	G 28.84 S12.84	G 17.00 S 10.00	G 15.00 S 10.00	G 16.00 S 10.00	G 17.00 S 9.00	G 6.33/ 14.95 S 3.45	G 15.50 S 10.00	G 17.00 S 10.00	G 15.00 S 10.00	G 15.50 S 6.00	G 15.00 S 9.00
1992	G 28.84 S12.84	G 17.00 S 10.00	G 15.00 S 10.00	G 16.00 S 5.00	G 17.00 S 9.00	G 8.9/ 16.25 S 5.75	G 15.50 S 9.50	G 17.00 S 10.00	G 17.00 S 10.00	G 15.50 S 6.00	G 16.50 S 9.00
1993	G 28.84 S12.84	G 16.00 S 5.00	G 15.00 S 7.50	G 16.00 S 5.00	G 17.00 S 9.00	G 8.9/ 16.25 S 5.75	G 15.50 S 9.50	G 17.00 S 10.00	G 17.00 S 9.00	G 15.50 S 6.00	G 16.50 S 10.00
1994	G 28.84 S12.84	G 16.00 S 5.00	G 15.00 S 7.50	G 16.00 S 5.00	G 17.00 S 9.00	G 8.9/ 16.25 S 5.75	G 15.50 S 9.50	G 17.00 S 9.50	G 17.00 S 8.50	G 15.50 S 6.00	G 16.50 S 10.00
1995	G 29.12 S 13.12	G 14.00 S 5.00	G 15.00 S 7.50	G 16.00 S 5.00	G 17.00 S 7.00	G 8.9/ 16.25 S 5.75	G 15.50 S 9.50	G 17.00 S 9.00	G 17.00 S 8.00	G 15.50 S 6.00	G 16.50 S 10.00

G: general rate
S: small business rate

Sources: *The National Finances*, Canadian Tax Foundation, 1991
Finances of the Nation, Canadian Tax Foundation, 1995

[*] The lower general rate in Quebec is on active business income that is not subject to the federal small-business deduction and excludes investment income, income from a personal service corporation, and specified investment business income. The higher rate is on non-active business income.

Technical Committee on Business Taxation

The Technical Committee was established by the Minister of Finance, at the time of the March 1996 federal budget, to consider ways of:

- improving the business tax system to promote job creation and economic growth,
- simplifying the taxation of businesses to facilitate compliance and administration, and
- enhancing fairness to ensure that all businesses share the cost of providing government services.

The Technical Committee will report before the end of 1997; consultations with the public will follow the release of the report.

The Technical Committee is composed of a panel with legal, accounting and economic expertise in the tax field. The members are:

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Stewart McKelvey Stirling Scales
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Department of Finance
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Buchwald Asper Gallagher Henteleff
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The Technical Committee has commissioned a number of studies from outside experts to provide analysis of many of the issues being considered as part of its mandate. These studies are being released as working papers to make the analysis available for information and comment. The papers have received only limited evaluation; views expressed are those of the authors and do not necessarily reflect the views of the Technical Committee.

A list of completed research studies follows. They may be requested from:

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  Brian Arnold (Goodman Phillips & Vineberg)
  Jinyan Li and *David Sandler* (University of Western Ontario)

- ☐ **WORKING PAPER 96-2**
  Why Tax Corporations
  Richard Bird (University of Toronto)

- ☐ **WORKING PAPER 96-3**
  Tax Policy and Job Creation: Specific Employment Incentive Programs
  Ben Cherniavsky (Technical Committee Research Analyst)

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  Aileen Thompson (Carleton University)

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  Peter McQuillan and *Cal Cochrane* (KPMG Toronto)

- ☐ **WORKING PAPER 96-9**
  Compliance Issues: Small Business and the Corporate Income Tax System
  Robert Plamondon (Ottawa)

- ☐ **WORKING PAPER 96-10**
  Study on Transfer Pricing
  Robert Turner (Ernst & Young, Toronto)

- ☑ **WORKING PAPER 96-11**
  The Interaction of Federal and Provincial Taxes on Businesses
  Marianne Vigneault (Bishop's University)
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  Taxation of Inbound Investment
  Gordon Williamson (Arthur Andersen, Toronto)