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Corporate Tax Harmonization in Europe: It's All About Compliance

JACK MINTZ jmintz@CDHOWE.org
J.L. Rotman School of Management, University of Toronto and the C. D. Howe Institute

Abstract

Although the hope may be to reduce economic distortions in captial markets, the primary focus of corporate tax consolidation among member states of a federation is to reduce compliance and administrative burdens. For example, the Canadian provinces have sufficient flexibility to determine their corporate tax policies, and effective tax rates on captial vary considerably by province, but they still have achieved a considerable degree of harmonization of tax bases. The European Union should also try to implement a consolidated tax base for companies. A compulsory base would be best, but it is likely that the optional consolidated tax base is most practical at this time.

Keywords: international tax co-ordination, business taxes, multinational firms

JEL Code: F23, H25

The European Commission proposal for a consolidated corporate income tax base that would be allocated or apportioned[1] to member states in Europe is long overdue. Many critics of the report have argued instead that tax competition among member states is beneficial in either limiting the taxing power of governments or developing tax policies sensitive to national objectives and constraints. Further, the analysis provided by the Commission in its report (European Commission, 2001) may have led to undue criticism that the intent of the proposals was to reduce economic inefficiencies in the allocation of capital resources.

To believe that a corporate tax system with consolidation and allocation would substantially reduce tax competition and capital distortions is off the mark. Although policy makers should rightly concern themselves with allocative issues, corporate consolidation in federal states (such as Canada or the United States) was not introduced with the intent of reducing distortions in allocating capital. Distortions in effective tax rates are common even in the presence of consolidation of corporate tax bases across sub-national jurisdictions.

Instead, the real aim of consolidation is to make the corporate tax system in a highly integrated market work "better" so that governments can administer and businesses can comply more easily with the corporate tax.[2] Otherwise, the unconsolidated corporate tax systems impede rationalization of the corporate sector. Corporate tax consolidation would reduce the need for European governments and businesses to comply with complicated rules such as the allocation of overhead costs (especially interest expense), transfer pricing, transferability of losses, financial derivative trading and cross-border mergers and acquisitions. Even with consolidation, individual European states could still operate with a great

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deal of autonomy by providing special treatment to business activities through state-specific tax rates, credits and allowances.[3] The consolidated system is primarily intended to reduce administrative and compliance costs.[4]

The need to integrate corporate income tax systems in Europe is becoming more apparent. Recent court decisions in Europe are making it more difficult for countries to levy their independent corporate income tax systems based on the concept of national residence. The *Schumacker* 1995 decision established two principles applied to direct tax systems regarding discrimination against companies that reside in other EU states and measures that constitute a barrier to the exercise of EC treaty freedoms (Gammie, 2002). Based on these principles, the European Court of Justice struck down imputation systems by ruling that the non-payment of dividend tax credits for company taxes to other European shareholders was discriminatory. Other aspects of national corporate tax law, based on the concept of national residency, are also being struck down as discriminatory, such as thin-capitalization rules in Germany and France that were recently challenged as unfair to companies resident in other European Union states since they did not apply to domestic companies. It is these trends – not capital allocation distortions—that would more likely push governments and businesses to accept some form of consolidation.

Below, I review the motivations for corporate tax consolidation and discuss which proposals would most likely make sense, assuming that unconsolidated corporate tax systems in Europe are now less viable. I begin first with a discussion of some of the history and implementation of corporate tax harmonization in Canada.[5] I then turn to the European proposals and describe which one would be the best candidate to achieve the objectives being sought for a consolidated corporate tax. I also examine some other proposals being made for corporate tax harmonization. I conclude by asking whether consolidation with limited aims can be achieved in Europe.

1. Principles for Corporate Tax Consolidation: Lessons from Canada

Before discussing the European proposals for corporate consolidation, it would be useful to consider some principles for corporate tax design for a federation. In Mintz (1999), I provide a survey of the various issues involved with allocation methods, in contrast to the existing independent corporate tax system with separate accounting and arm's length pricing. I will not review that discussion but refer the reader to it.

I specifically use the Canadian example since its system developed a relatively good balance taking into account both federal and provincial concerns. The Canadian system began not with the harmonization of disparate provincial corporate tax systems but, instead, devolving corporate tax powers to the provinces. While the provinces had their own independent and unconsolidated corporate tax systems until the Second World War, the provinces agreed to "rent" to the federal government the personal income, corporate income and estate tax fields for a fixed payment during the Second World War. After the war, the provinces, especially Quebec and Ontario, decided to operate their own independent corporate tax systems. To avoid complexities that were found during the "tax jungle" days prior to the Second World War, the federal and provincial governments developed a method to allocate a consolidated tax base to each of the provinces (see Smith, 1976 for a historical review of the Canadian corporate allocation system).

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The formula agreed to by the federal and provincial governments was to allocate corporate income to a province based on equal weighting of payroll and sales of a business operating in more than one province.[6] Although the provinces did consider using the US Massachusetts formula (equal weighting of payroll, property and sales), the proposal was rejected since it would have allocated a larger share of the corporate tax base to the exporting provinces, Ontario and Quebec, compared to a formula in which sales on a destination basis had greater weight. Thus, Canada adopted the two-factor formula to provide greater corporate income tax revenues to the Atlantic and western provinces. Since that time, both the Atlantic and western provinces have raised concerns about the use of destination-based sales measure in the formula since natural resources tend to be sold for processing in the central provinces, thereby resulting in less corporate tax base being allocated to the resource-producing provinces. Given the nature of negotiations as a zero-sum game, the issue has never been resolved.

Under the tax collection agreements in effect since 1962 (replacing the former tax rental agreements), the federal government would administer a provincial corporate income tax so long as the province agreed to use the tax base defined by the federal government. Provinces would be able to levy their own rate of tax on the corporate tax base as well as choose tax credits that could be targeted to particular business activities. The federal government would not charge the provinces for the registration, collection and auditing costs incurred with operating the provincial corporate tax. Businesses would only need to file one form to the federal government for both federal and provincial corporate tax compliance.

Ontario and Quebec both decided to operate their own corporate income tax systems in 1947 with Alberta taking the same route in 1973. Today, seven provinces have tax collection agreements with the federal government for the corporate income tax. However, the three provinces with independent corporate tax systems comprise over 80% of corporate taxable income at the provincial level (Technical Committee on Business Taxation, 1998, ch. 10).[7] Although the provinces with independent corporate income taxes could choose quite different bases and factors for allocating income to their jurisdictions, they have chosen to keep their corporate tax bases and allocation factors generally similar to that used by the federal government. Corporate tax rates vary widely by province (from 8.9% in Quebec to 16% in Nova Scotia and Prince Edward Island) and many provinces have special credits for business activities including research and development, resource investments, manufacturing, film production, etc.

The development of Canada's corporate tax system reflects various competing objectives. These include:[8]

1. Ensuring the free flow of capital across provincial boundaries to enhance economic efficiency.
2. Reducing fiscal externalities amongst governments that result in non-optimal levels of taxation (either due to tax base flight or tax exportation).
3. Reducing administrative costs for governments and compliance costs for businesses.
4. Providing provincial autonomy to determine tax policies for their unique industrial bases.
5. Improving political accountability so that governments responsible for expenditures raise the revenues needed to fund them.

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Clearly, the fourth and fifth objectives—providing provincial autonomy and accountability (similar to the subsidiarity principle)—clash with the first three that require greater coordination of corporate tax policies. By and large, the Canadian corporate tax system has accommodated these disparate objectives by providing flexibility to the provinces.

The Canadian consolidation system for provincial corporate taxation clearly has not eliminated differences in effective corporate tax rates across the provinces. Several reasons give rise to differences:

- *Provincial variation in rates and credits*: Effective tax rates on capital for businesses operating independently in each province vary considerably across provinces for each industry (see Table 1).These differences arise from differential statutory corporate tax rates and tax credits. They also arise from a regionally-differentiated federal tax credit (the 10% Atlantic investment tax credit).
- *Allocation formulas result in differential effective tax rates*: As Mintz (1999), Dahlby (2000), Mintz and Weiner (2001), Sørensen (2003) and Wellisch (2002) point out, effective tax rates on capital can vary across jurisdictions when businesses try to shift production into low-tax jurisdictions in order to reduce the aggregate tax rate on income under the allocation formula. In some cases, the distortions may increase when income is allocated according to factors like sales.

Table 1. Effective corporate tax rates on capital for large corporations: All Provinces 2008 (in percentages).

	British Columbia	Alberta	Saskatchewan	Manitoba	Ontario	Quebec	New Brunswick	Nova Scotia	Prince Edward Island	Newfoundland
Forestry	26.2	19.9	34.9	33.2	26.6	23.0	25.5	23.6	29.0	21.9
Manufacturing	24.2	20.3	23.9	31.5	24.3	23.3	14.7	12.4	10.8	2.2
Construction	29.7	23.8	34.4	36.1	29.3	26.2	22.7	21.2	26.4	15.2
Transport	26.3	18.2	34.2	32.9	27.0	21.4	23.8	21.8	29.6	20.2
Communications	22.0	16.9	30.8	28.9	22.6	20.0	22.4	20.4	24.7	19.0
Electrical power	20.6	16.2	29.3	27.5	21.2	19.3	21.5	19.5	22.9	18.1
Wholesale trade	33.4	27.0	34.0	39.5	32.1	29.2	30.6	29.5	31.1	24.2
Retail trade	35.8	27.3	42.8	41.5	35.2	29.5	32.5	31.6	39.1	29.6
Other services	28.8	21.9	36.2	34.8	28.6	24.4	27.1	25.8	31.8	24.1
Structures	18.8	17.1	25.3	26.1	19.0	19.9	18.8	16.9	15.7	13.5
Machinery	30.1	18.0	30.2	36.1	31.1	21.5	10.9	7.9	22.9	1.9
Inventory	32.9	30.5	40.0	39.9	31.4	32.6	36.1	35.4	32.5	29.3
Land	15.4	14.0	34.7	21.5	15.7	16.5	18.5	16.8	16.3	14.8
Aggregate	27.7	20.8	34.7	35.1	26.8	23.9	21.0	21.1	23.4	16.8

Note: The year 2008 was selected since the federal government has scheduled to lower the corporate income tax rate a further two points in 2004 and to eliminate the federal capital tax by 2008. Planned cuts to provincial corporate income and capital taxes over this period are also incorporated. At the time of writing this paper, the newly-elected government in Ontario has indicated that it will not proceed with corporate tax cuts and will raise the rate to the 2001 level.

Source: International Tax Program, Institute of International Business, University of Toronto. Taken from Chen and Mintz (2003).

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- *Not all companies need to allocate income for consolidation purposes*: Since Canada does not permit consolidation of profits and losses within a corporate group, the allocation formula is only applied to legally distinct corporations operating in two or more provinces (about 45% of corporate taxable income is consolidated, although a third of corporate taxable income is earned by small businesses with assets less than $15 million, most of which operate in a single province).[9] Effectively, companies have a choice between using allocation methods or not although they must organize their affairs accordingly. For example, to avoid allocation, businesses have to be separately incorporated in each province, which may not be economically desirable for branding, liability, regulatory and other reasons.

While the Canadian approach to corporate tax consolidation is far from perfect, it certainly has reduced some of the problems that are typically encountered at the international level. A common tax base applies to most large companies that are highly consolidated at the national level even though they could create separate legal entities at the provincial level to avoid consolidation. To illustrate, Canadian law does not include many provisions for provincial corporate tax purposes that often apply to companies operating at the international level. Instead, the following applies:

- No provincial thin-capitalization rules disallowing interest expense incurred on indebtedness to a non-provincial corporations.
- No provincially imposed allocation formulas for national businesses to allocate interest expense since income and costs are allocated to provinces using the national level formulas.
- No provincial transfer pricing rules.
- No limitations on the use of losses in one province against income in another within the single entity.
- No limits on the transferability of asset values when two separate entities operating in different provinces are merged or amalgamated. Under certain conditions, assets can be transferred at (i) taxable cost to defer capital gains taxes and recapture of depreciation or (ii) transferred at fair market value, thereby requiring capital gains taxes and recapture of depreciation to be applied. In certain circumstances companies have been able to use to their tax advantage fair market value for one level of government and taxable cost for the other in the case of the three provinces that collect their own tax.
- Personal taxation of dividends and capital gains at the provincial level that applies at the same rate on income regardless from which province the income is derived.

The lack of many of these complex rules is not to suggest that corporations do not use certain transactions to minimize provincial taxes. Mintz and Smart (2003) demonstrate that the lack of group taxation in Canada does provide opportunities for companies to shift income across provinces. The Technical Committee on Business Taxation (1998) considered whether to introduce consolidation for the allocation formula or the transferability of losses across corporate groups. However, the Committee could not come to a recommendation since consolidation is quite complicated in that a threshold of ownership must be defined and "change of control" rules are required for the transferability of assets, liabilities and losses when companies enter and leave groups. Even though consolidation in a corporate group is

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not used in Canada, as mentioned above, almost one-half of corporate income is allocated. Large entities allocate income at the national level either for tax reasons (allocation may be more conducive to minimizing taxes than operating separating companies) or they must operate as one entity for regulatory and other economic reasons. Provinces therefore face fewer pressures to invoke rules to guard their tax base. The simplification achieved with Canadian consolidation is the heart of corporate tax consolidation proposals in Europe because consolidation can reduce calculations for governments and businesses alike when operating at the pan-European level.

The Canadian system achieves considerable savings in administrative and compliance costs, in marked contrast to the US system[10] but, by having provincial-specific rates, credits and some differences in the tax bases, does not eliminate capital market distortions. Further, other taxes on businesses, such as capital, payroll, fuel and property taxes, are not subject to harmonization, thereby providing considerable scope for provincial autonomy and political accountability.

One important difference between the European Union and Canada is that Canada has a federal income tax that provides a basis for designing provincial corporate income taxes. If Europe consolidates its corporate tax bases, it lacks a federal model that provides some homogeneity among systems, a point further discussed below.

The critical point is that consolidation has allowed Canadian governments to levy a corporate tax that is relatively easy to comply with and administer while at the same time preserving a great degree of provincial autonomy. Although separate accounting for unconsolidated firms surely adds complexity, the system has worked relatively well. Capital resources are misallocated in the presence of differential provincial corporate tax systems but the full elimination of tax distortions was not the intent of the system.

2. The European Consolidation Proposals

As discussed more thoroughly elsewhere (Devereux, 2004 in this forum, Weiner, 2001 and Cnossen, 2003), the European proposals include four systems of consolidation:

- *Home State Taxation*: Based on mutual recognition, a government would levy a tax on income allocated to its jurisdictions according to the tax base determined by the country of residence. Corporations could choose between the consolidated system and the current system.
- *Consolidated Common Tax Base*: Governments would use a European-wide consolidated tax base with factors used to allocate income. Companies could choose to use the consolidated common tax base or the existing system.
- *European Union Corporate Income Tax administered at the EU level*: A single system with a consolidated common base would be levied at the EU level on pan-European companies with revenues going to the EU.
- *A Compulsory Harmonized Corporation Tax Base*: All companies would have to use a common tax base administered by each of the national governments.

None of the proposals except for a consolidated common tax base seem that appealing (Mintz and Weiner, 2001). However, as discussed below, it would be best to implement

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the compulsory harmonized corporation tax base so that it would apply to all companies operating in the European Union.

Home state taxation (HST) preserves multiple corporate tax systems that will be difficult for governments to administer within one jurisdiction. It also raises serious competitive issues in that companies operating in a jurisdiction could be subject to different tax rules. Arguably, the HST could be a first step towards a common consolidated base, but, such systems become entrenched in practice making it difficult to move to another approach over time, as suggested by Canadian experience.

Also unlikely is the proposal for a European Union corporate income tax. A European Union tax would result in a new allocation of taxing powers from national to the supranational governments in the European Union, going beyond what has been achieved for VAT harmonization.

The best approach would be the compulsory harmonized corporate tax base for all companies in the European Union. Under this approach, companies could not choose between a domestic and consolidated tax base. Instead, all would need to follow the same rules. This approach would minimize economic inefficiencies arising from differential treatment of companies. However, the approach could be difficult to implement at the present time. The compulsory harmonized corporation tax base would be administered by member states but the unanimity rule would require all states to agree to a common base. Obtaining such agreement would be a significant challenge especially if the tax were applied immediately to all companies, including small ones, operating in a member state. If consolidation is not required, the system would be similar to that in Canada where the provincial tax bases are by and large similar to the federal base.

The other candidate that could achieve the primary objectives of businesses and governments at this time is the optional consolidated common tax base. Businesses would be able to reduce compliance costs substantially, which is their main objective. Each government would be able to get its revenues according to allocated income and operate independent systems for smaller companies. The approach is similar to that in the United States where state level bases can differ from the federal base.

Nonetheless, whether the compulsory or optional common consolidated tax base is adopted, governments would need to feel that the benefits outweigh costs. This would be problematical for several reasons.

First, it is very difficult to determine a common corporate income tax base given the absence of a "model" base. However, as the European countries are moving towards the international accounting standard, it becomes more possible to develop a common approach for the tax base (Spengel, 2003). Certainly, some common tax base is required but, as in the case of Canada, sub-national governments could still have considerable flexibility in choosing rates, credits and other provisions in accordance with their desired objectives, as long as they are not a form of state aid that is prohibited in the European Union.

Second, since revenues are reallocated among governments , some will be losers. Canada was able to implement its system because at the time of determining the allocation formula the federal government controlled the corporate tax system and, after World War II, was devolving taxing powers to the provinces. It was easier to get an agreement at that time but revisions to the system today, like amending allocation factors, is very difficult to

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achieve since negotiations are largely about splitting up the existing pie. Some gain and some lose.

Third, various tricky policy and administrative issues would still need to be dealt with if Europe moved to a common consolidated tax base. These include the following:

- *Tax Treatment of Foreign-Source Income*: Currently, European governments have quite different approaches to taxing income derived from foreign sources. Some countries like France and Netherlands largely exempt foreign-source earnings in treaty countries. Others like the United Kingdom and Italy tax income remitted from foreign sources with a tax credit for foreign income. In Canada, state and provincial governments generally follow the federal rules for taxing foreign-source income. A common approach in Europe would make it easier to apply member-state taxes on foreign-source income earned by European multinationals.
- *Choosing the weights to allocate income*: The choice of weights to distribute income could include sales, payroll or capital. Alternatively, as suggested in the European Commission's report, origin-based value-added could also be considered, although one could in practice make adjustments to reflect the destination approach which would be consistent with the existing value-added tax base (Hellerstein and McLure, 2003). Each method would have a significant impact on the revenues received by governments and the amount of tax paid by each company. Formula apportionment with factors based on value-added could also result in greater distortions than the separate accounting approach, including the possibility a cost of capital lower than the normal rate of return required by investors (see the Appendix). Further, for some industries like transportation and finance, special factors for allocating income would also have to be chosen, such as revenue passenger kilometers, insurance premiums, and financial ratios.
- *Definition of a Corporate Group*: Countries would need to agree to the appropriate threshold for determining whether a company belongs to a corporate group. Not only would the threshold for percentage of ownership need to be agreed upon, but details related to whether the test is based on votes and/or value for some or all types of shares would have to be decided. Change of control rules would also need to be made consistent with the use of group definitions of businesses.
- *Taxation of Dividends at the Personal Level*: Although most of the European governments have disbanded their full imputation systems, most continue to provide some sort of dividend relief system to reduce the overall corporate and personal income tax applied to corporate distributions. Such relief systems might be expanded to dividends derived from other EU countries, which is the practice used in Canada since provinces provide dividend tax relief regardless of where the income is sourced in Canada. Even though a capital exporting country pays for the dividend relief given for corporate taxes paid on income earned in other EU countries, the current approach used in the EU should not prove to be a major obstacle to a dividend tax relief so long as member states provide dividend relief for corporate income derived from other EU members.

The above technical issues can be settled once the European governments feel that the independent tax system could no longer prevail so that consolidation is the only approach to a more practical corporate tax administration in Europe. Some other approaches for tax

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harmonization could be considered—such as a minimum tax rate or replacement taxes for corporate income taxes;—these are discussed below.

3. Statutory Tax Rate Harmonization: It's a Red Herring

The European report spent considerable effort measuring effective tax rates on capital income and came to the conclusion that differences in effective tax rates are largely explained by differences in statutory tax rates rather than differences in tax bases. While it is helpful to have such an analysis, one should not come to the conclusion that the differences in tax bases are not the main issue when it comes to taxpayer compliance and administrative practicalities. The effective tax rate measures provided in the report largely pick up differences in depreciation and inventory cost deductions but fail to measure all the potential differences in the European tax bases with which businesses must comply. Thus, differences in tax bases are much more important than what is being captured in effective tax rate calculations.

The argument that tax rates should be harmonized is based on a somewhat different analysis. As is well known, statutory tax rate differences have a significant impact not just investment but also the reporting of profits across jurisdictions. Without moving a machine or person, a company, through financial transactions or transfer pricing, can shift profits easily from one jurisdiction to another. Governments cut corporate income tax rates in order to capture a larger share of corporate tax revenues given the sensitivity of tax bases to rate differentials. On the other hand, with less concern about the mobility of machines and capital, many countries have cut back generous deductions and credits for capital costs to preserve corporate tax revenues (Mintz and Chen, 2000).

One alternative approach to a common consolidated tax base is to require a minimum corporate income tax rate that would be applied across all EU countries. However, this proposal does not solve the most pressing problems. From the perspective of companies, the different tax systems make tax compliance a barrier to operating at the European level. If the minimum rate is the Irish rate (12.5% in 2004), then the minimum tax rate will solve few of the problems arising from the lack of co-ordinated tax rates under the existing system since differential corporate income tax rates are quite large, varying from 12.5% to almost 40%. Further, a minimum tax rate will not deal with the problems of corporate taxation operating at the international level, beyond European borders. If the minimum tax rate is set too high, profits could be shifted out of Europe itself.

Besides there is not a lot of evidence that the differences among corporate statutory tax rates across jurisdictions in a federation are any more of a problem in the presence of an allocation rule than in the absence of one. Allocation can reduce the scope for income shifting through financial transactions and therefore help reduce income-shifting. Canada, for example, has had provincial corporate tax rates that have varied from as low as 5% to as high as 17% since 1981 (these taxes are not deductible from federal corporate income tax as in the United States). Despite evidence of income shifting into Quebec where the rate was lowest (see Bird and Mintz, 2000; Mintz and Smart, 2003) none of the provinces have felt it necessary to cut their rates in response to Quebec's low rate. Even if one reduced general rate differences across countries, substantial income shifting will continue resulting from preferential regimes that provide special opportunities for income shifting

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(Belgian co-ordination centres, Irish international finance centres, etc.).[11] Presumably, a minimum corporate income tax rate will not work if a country has the latitude to set up these differential regimes. Europe would need to look at base harmonization to eliminate these special regimes, which it has tried to achieve so far without great success with its Code of Conduct.

3.1. *Should There be a Corporate Income Tax in Europe?*

Let me conclude with one more provocative suggestion, but one that I do not believe would be possible to implement at the present time: abolish the corporate income tax altogether. Governments could impose taxes other, than the corporate income tax as surrogate user fees on businesses. The main reasons for maintaining the corporate income tax itself are twofold. First, if governments tax capital income at the personal level, the corporate income tax ensures that such income is subject to taxation prior to the distribution of income to investors. Second, with foreign tax crediting arrangements, only the corporate income tax is creditable against foreign tax liabilities levied by capital exporters on income remitted to parents. The elimination of the corporate income tax could result in a transfer of tax revenue from the host to the home country (such as the United States and Japan) without affecting the total tax paid by multinationals.

The first reason for maintaining the corporate income is becoming less important if governments move from income to consumption taxation (thereby exempting capital income). If a government maintains the personal income tax, the corporate income tax would still be required unless all forms of capital are subject to tax at the personal level (including accrued capital gains) making the corporate income tax unnecessary. However, personal taxation, especially of capital gains, is far from being fully applied. Given the deductibility of interest expenses, some countries have found that the yield from personal capital income taxes is generally low if not negative (Cnossen, 2000). This has led these countries to consider abolishing capital income taxation altogether or adopt a schedular form of taxation, the Dual Income Tax, which results in lower tax rates on capital income relative to labour income.

The second argument, based on the foreign tax credit, is losing some importance. Many countries provide an exemption for foreign source dividends earned by resident multinationals. Those that do tax such income provide a credit for foreign taxes paid, often on a global basis (or some similar alternative that results in a global approach as in the case of "mixer" corporations under the United Kingdom's law). Companies are able to manipulate foreign tax credits so when they remit income to their parent, the home tax, net of the credit, is very small. Many companies can also be in an excess credit position so that cuts in host country taxes may not increase taxes paid to the home country. Thus, a reduction in corporate income tax rates does not necessarily affect the degree to which corporate taxes are credited, since companies can shift income into a low-tax rate country to bring foreign tax credits to the level of home tax liabilities applied to remitted earnings. Despite this, however, the complete abolition of corporate income taxes would result in a transfer of revenue from the host to home or other countries' treasuries if the host country abolishes its corporate income tax.

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Given that many European Union countries are capital exporters and have been reducing taxes on capital income (and even have abolished capital gains taxes), there may be less need to impose the corporate income tax. One possible approach to the corporate tax issue would be to abolish the corporate income tax altogether. To make up revenues, governments could impose user fees on corporations, property or asset-based taxes, or simply increase the value-added tax. Another approach is to follow the 1998 Italian regional reform and adopt a business tax on an origin value-added base (Bird and Mintz, 2000).

While a greater structural reform might be appealing, it is far less likely that the European countries would agree to a common approach of this type. Many European countries would not want to eliminate the corporate income tax since personal taxes on capital income are desirable from their perspective. As seen with the development of Dual Income Taxation, the Nordic and Dutch governments maintained some level of tax on capital income, including corporate profits, although at a rate lower than that applied to labor income. A major change that would result in the elimination of corporate income taxation has significant impacts on national tax systems, especially the personal income tax. European governments seem reluctant to give up taxation of capital income under the personal income tax.

4. Conclusions

If Europe is to maintain a corporate income tax as a source-based tax and move to a more coordinated system, the common consolidated tax base is the best approach to apply . The intent of any reform would be to reduce the compliance and administrative costs of corporate taxation in Europe. Given this principle, governments should avoid giving companies an option to choose whether to consolidate a tax base or not since this would make the tax system more difficult to administer. However, the optional consolidated common base may be needed to start up the system. Home state taxation is less appealing, since each government would be burdened with auditing multiple corporate tax systems and, once in place, it would be difficult to move the system towards a common base.

Appendix: Some Surprising Effects of Origin-Based Value-Added Factor Used for Formula Allocation

Many theoretical analyses of formula allocation methods concentrate on capital (Mintz, 1999; Nielsen, Raimondos-Møller and Schjelderup, 2001; Sørensen, 2003) and payroll (Wellisch, 2002). The origin-based value-added factor, however, is commonly used in most countries and results in quite different dispersions in effective tax rates than those derived for other factors.

Consider the following analysis for an origin-based value-added factor. Suppose that value-added is equal to production as defined by to a strictly concave function, $F[K_j]$, dependent on capital, K, invested in the jth jurisdiction. Assume that there is no depreciation of capital and capital is debt financed by a fixed debt-capital ratio, denoted by B. Let u' be the average corporate income tax which is defined as the weighted average of corporate tax

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rates (u_j), the weights based on sales to total sales across the jurisdictions:

$$u' = \sum_j F[K_j]u_j \bigg/ \left\{ \sum_j F[K_j] \right\} \tag{1}$$

After-tax profits of the company operating in multiple jurisdictions is equal to income paid to shareholders, net of corporate taxes, less the opportunity cost of equity finance (the interest rate r which applies to bond finance as well) with equity finance equal to $(1 - B) \sum_j K_j$:

$$\Pi = (1 - u') \left\{ \sum_j [F[K_j] - rBK_j] - r(1 - B) \sum_j K_j \right\} \tag{2}$$

Maximization of (2) with respect to K_j, taking into account the endogeneity of u', results in the following cost of capital for a company with sales allocation:

$$F'[K_j] = r\{B(1 - u') + 1 - B\}/\{1 - u_j - u'(1 - B)\} \tag{3}$$

Without debt finance ($B \to 0$), the cost of capital under the value-added factor method is the same as under the separate accounting principle:

$$F'[K_j] = r/\{1 - u_j) \tag{4}$$

With full debt finance ($B \to 1$), which would imply that the corporate tax would only be a rent-based tax with cost of finance fully deductible ($F'[K_j] = r$), the cost of capital under the sales factor method would be distorted:

$$F'[K_j] = r(1 - u')/\{1 - u_j) \tag{5}$$

Note that the cost of capital is distorted as long as the corporate income tax rates vary by jurisdiction (otherwise $u' = u_j$ for all j). A jurisdiction with a tax rate that is lower than the average tax rate would have a cost of capital below r since rents are taxed a lower rate in the jurisdiction.

Thus, under the origin-based value-added formula, one can conclude that formula allocation could result in a greater distortion in capital allocation compared to the separate accounting method.

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Notes

1. Throughout, I shall use the term "allocation" typically used in Canada in referring to dividing up the corporate tax base among jurisdictions. Apportionment is the alternative term that is used in the United States.
2. While one would not expect allocation (or apportionment) methods to reduce the misallocation of resources, the key reason for their adoption is that it becomes difficult to measure corporate profits using the arm's length standard and separate accounting principles. See Mintz (1999) for a survey and Nielsen, Raimondos-Møller and Schjelderup (2001) for some results on fiscal externalities and tax competition.

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3. European Union limitations on the use of state-aid could compromise the use of certain credits.
4. For example, effective tax rates across Canadian provinces vary quite sharply (Chen and Mintz, 2003). See also Technical Committee on Business Taxation (1998).
5. See McLure (1989), Hellerstein and Hellerstein (1998) and Weiner (1992) for reviews of consolidation in the United States. Hellerstein and McLure (2003) provide a discussion in this symposium on US tax consolidation. The Canadian experience is quite different.
6. Special formulas were devised for transportation and financial businesses to account for their special characteristics (e.g. use of passenger revenue miles and financial assets).
7. The provinces also levy capital taxes on corporations. These taxes are not included in the Tax Collection Agreements. However, the allocation of taxable capital (shareholders' equity and most forms of debt except short-term accounts payable and bank deposits) is based on the same allocation formula used for the corporate income tax system. Further, many provinces have harmonized their capital tax base with the federal large corporations tax, which is a capital tax being phased out by 2008.
8. See the report of the Technical Committee on Business Taxation (1998).
9. Technical Committee on Business Taxation (1998).
10. Erard (1997) conducted a compliance cost study in Canada similar to Slemrod and Blumenthal (1996). Unlike Blumenthal and Slemrod, who found that compliance with subnational corporate tax systems was one of the most important factors in determining compliance costs, Erard finds that compliance costs arising from Canada's decentralized corporate tax system were of not much importance to businesses.
11. Keen (2001) suggests that special preference regimes that attract mobile businesses reduces the effect of tax competition among countries for tax levied on immobile businesses. See also Janeba and Smart (2003) for more general results.

References

Bird, R. M. and J. M. Mintz. (2000). "Tax Assignment in Canada: A Modest Proposal." In H. Lazar (ed.), *Toward a New Mission Statement for Canadian Fiscal Federalism*. Kingston, Ontario: Institute for Intergovernmental Relations, Queen's University.

Chen, D. and J. Mintz. (2003). "Taxing Investments: On the Right Track but at a Snail's Pace," *C.D. Howe Institute Backgrounder*, 72, June, Toronto.

Cnossen, S. (2000). "Taxing Capital Income in the Nordic Countries: A Model for the European Union?" In S. Cnossen (ed.), *Capital Income Taxation in the European Union: Issues and Options for Reform*. Oxford, United Kingdom: Oxford University Press.

Cnossen, S. (2003). "Coordinating Corporation Taxes in the European Union," mimeograph, University of Michigan Law School, Centre for International and Comparative Law.

Dahlby, B. (2000). "Provincial Tax Co-ordination." In J. Mintz and M. Smart (eds.). "Recent Developments in Tax Coordination," *Canadian Tax Journal* 48(2), 389–443.

Devereux, M. P. (2004). "Debating Proposed Reforms of the Taxation of Corporate Income in the European Union," *International Tax and Public Finance* 11(1), 71–89.

Erard, B. (1997). "The Income Tax Compliance Burden in Canadian Big Business," Working Paper 97–2, Technical Committee on Business Taxation, Department of Finance, Ottawa, Canada.

European Commission. (2001). "Company Taxation in the Internal Market," COM(2001) 582 Final, Brussels, Belgium.

Gammie, M. (2002). "Arm's Length or Formulary? An EU Perspective," Notes for presentation at a Harvard Seminar, Oct. 26, 2002.

Hellerstein, J. and W. Hellerstein. (1998). *State Taxation*, 3rd edn. MA: Warren, Goreham and Lamont, Boston.

Hellerstein, W. and C. McLure Jr. (2003). "The European Commission's Report on Company Income Taxation: What the EU Can Learn from the Experience of the US States," *International Tax and Public Finance*, 11(2), 199–220.

Janeba, E. and M. Smart. (2003). "Is Targeted Tax Competition Less Harmful than its Remedies," *International Tax and Public Finance* 10(3), 259–280.

Keen, M. (2001). "Preferential Regimes Can Make Tax Competition Less Harmful," *National Tax Journal* 54, 757–762.

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McLure, C. E. Jr. (1989). "Economic Integration and European Taxation of Corporate Income at Source: Some Lessons from the U.S. Experience." In M. Gammie and B. Robinson (eds.), *Beyond 1992: A European Tax System*. London, UK: Institute for Fiscal Studies.

Mintz, J. (1999). "Globalization of the Corporate Income Tax: The Role of Allocation," *FinanzArchiv* 56(Suppl.), 389–422.

Mintz, J. and D. Chen. (2000). "Will the Corporate Income Tax Whither?" In *World Tax Conference Proceedings*. Toronto, Ontario: Canadian Tax Foundation.

Mintz, J. and M. Smart. (2003 forthcoming). "Income Shifting, Investment and Tax Competition: Theory and Evidence from Provincial Taxation in Canada," *Journal of Public Economics* (also earlier version available as CESifo Working Paper No. 554 2001).

Mintz, J. and J. Weiner. (2001). "Exploring Formula Apportionment for the European Union," Presented at a conference on "Tax Policy in the European Union," held at the Research Center for Economic Policy, Erasmus University, Rotterdam, 17–19, October 2001.

Nielsen, S. B., P. Raimondos-Møller and G. Schjelderup. (2001). "Tax Spillovers under Separate Accounting and Formula Apportionment," EPRU Working Paper 2001–2001, Institute of Economics, University of Copenhagen.

Slemrod, J. and M. Blumenthal. (1996). "The Income Tax Compliance of Big Business," *Public Finance Quarterly* 24(4), 411–438.

Smith, E. H. (1976). "Allocating to Provinces the Taxable Income of Corporations: How the Provincial Allocation Rules Evolved," *Canadian Tax Journal* 24, 545–571.

Spengel, C. (2003). "Interntional Accounting Standards, Tax Accounting and Effective Levels of Company Tax Burdens in the EU," mimeograph.

Sørensen, P. B. (2003). "Company Tax Reform in the European Union," *International Tax and Public Finance*, 11(1), 91–115.

Technical Committee on Business Taxation. (1998). *Report*. Finance Canada, Ottawa.

Weiner, J. (1992). "Tax Coordination and Competition in the United States of America," in Commission of the European Communities, *Report of the Committee of Independent Experts on Company Taxation*, Luxembourg.

Weiner, J. (2001). "The European Union and Formula Apportionment: Caveat Emptor," *European Taxation* 42, 380–388.

Wellisch, D. (2002). "Taxation under Formula Apportionment—Tax Competition, Tax Incidence and the Choice of Apportionment Factors," mimeograph.

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