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Corporate Taxation in an International Context

Tax systems are designed and administered by national governments. They developed at a time when cross-border flows of goods, services, and capital were much less important than they are today. Arrangements to deal with international trade and capital flows have been added to national tax systems on a needs-must basis. Inevitably, these arrangements tend to be complex and problematic, requiring a degree of cooperation between governments and having to reconcile different approaches to taxation in different countries, as well as differences in tax rates. Cooperation takes the form both of bilateral tax treaties agreed between countries and of more ambitious attempts at coordination of some tax rules within blocs such as the OECD and the European Union.

Few would claim that the current system is satisfactory. Some international companies complain of 'double taxation' of the same income in multiple jurisdictions, resulting in cross-border investments facing higher taxation than domestic investments, as well as the additional compliance costs of having to deal with multiple tax authorities. At the same time, some governments complain of tax avoidance by multinational firms, with taxable income being shifted out of countries with high tax rates into countries with lower tax rates, and being routed through affiliates in tax havens in ways that may make it difficult to tax at all. A high proportion of the significant legal disputes between companies and tax authorities involve the treatment of cross-border transactions.

The growth of multinational corporations, in particular, has placed increasing strains on the international aspects of national tax systems. Even if there were universal agreement on *how* the worldwide profits of a company should be taxed, for firms with operations in more than one country we face the further question of *where* those profits should be taxed—or, more precisely, of how to divide global profits between the different countries in which business is conducted. These considerations—international mobility of income and international tax competition between jurisdictions—play an increasingly central role in the design of corporate income tax systems.

Consider a simple example in which a company is legally resident in country R and is wholly owned by residents of that country. The company has a wholly owned subsidiary in country S, producing products that are wholly exported and purchased by consumers in a third country, D. Country R is referred to as the residence country, in which the ultimate owners of the company are resident. Country S is referred to as the source country, in which the company's assets are located and its production takes place. Country D is referred to as the destination country, in which the product is consumed.[1] We agree that this operation produces profits—perhaps profits in excess of the normal rate of return on the capital invested—that should be taxed. But should these profits be taxed in the residence country, the source country, or the destination country? How should the tax base be allocated between these three jurisdictions?

There is no compelling answer to this question. To appreciate this, suppose that the product can only be produced in country S and is only valued by consumers in country D, and the operation can only be financed by investors in country R. Worldwide profits would then be zero without an essential contribution from individuals located in each of the three countries. There is no sense in which we could state, for example, that 20% of the profits stem from the contribution of individuals in the residence country, 50% from the contribution of individuals in the source country, and 30% from the contribution of individuals in the destination country. In this case,

[1] The structure of real multinational enterprises will generally be much more complex, with shareholders resident in many countries and including institutional investors, making ultimate ownership difficult to discern. Similarly, groups may have subsidiaries and customers in multiple jurisdictions.

there would seem to be no logical basis for dividing up these global profits between the three countries. And yet the international tax system clearly requires some allocation to be adopted, if the profits of multinational companies are to be taxed at all.

It can also be noted that different components of national tax systems typically result in different allocations of worldwide profits in cases such as this. Consider first value added taxes (VATs), which generally operate on a destination basis. If it were the case that the governments of all three countries in our example relied exclusively on VATs to raise their tax revenue, then the only tax paid on the operations of our company would be paid in the destination country, D. Since value added can be expressed as the sum of labour costs and economic rent, in this case the worldwide profits of the company, in excess of the normal return on capital invested, would be taxed at the VAT rate of country D.

The outcome would be very different if, instead, all three countries relied exclusively on personal income taxes, which generally operate on a residence basis. Investors resident in country R would then be liable to tax on the dividend income and/or capital gains that they derive from their ownership of the company. In this case, the only tax paid on the operations of the company would be paid in the residence country, R, at the shareholders' personal income tax rates.[2]

The allocation would be different again if all three countries relied exclusively on corporate income taxes, which generally operate on a source-country basis. In this case, the subsidiary company in country S would be taxed on its reported profits. The parent company in country R may or may not be taxed on any dividends received from its subsidiary in country S, depending on the treatment of foreign-source income in country R. If it is not, the only tax paid on the operations of the company would then be paid at the corporate income tax rate in the source country, S.[3]

[2] Under a standard personal income tax, both economic rents and the normal return on capital invested would be taxed in this case; although tax payments could be deferred by retention of profits within either the subsidiary or the parent company and by individual investors delaying realization of the associated capital gains.

[3] As we discuss further in Section 18.2, this would be the outcome either if country R exempts foreign-source dividends from its corporate tax base, or if it taxes foreign-source dividends under the credit method *and* the corporate tax rate is higher in country S than in country R.

These examples indicate that the balance between taxation in the source country, the residence country, and the destination country will depend on the relative levels of corporate income tax rates, personal income tax rates, and VAT rates. The balance between these different taxes also influences the degree to which different measures of profits are taxed. Thus the trend over the last three decades towards lower corporate income tax rates and higher VAT rates in many developed countries has tended to result in a shift away from taxation of total profits (including the normal return on equity invested) in source countries, and towards the taxation of economic rents (on a cash-flow basis) in destination countries.

Our focus in the remainder of this chapter will be on corporate taxation in the context of international companies. Without a much greater degree of coordination between national governments than we can envisage in the foreseeable future, there are no simple solutions to the challenges that this presents for tax design. There are powerful intellectual arguments against source-based corporate income taxes, and enormous practical problems in their implementation. And yet in spite of these concerns, source-based corporate income taxes—many of which were introduced over a century ago—have survived and continue to raise significant amounts of government revenue in many countries.

In considering the design of the tax system in a small open economy setting, we recognize that many countries are likely to continue to operate source-based corporate income taxes for many years to come. In our view, this does not preclude significant reform of the corporate tax base. However, the pressures that have led to falling corporate tax rates in recent years suggest that this will have important revenue implications. In short, it would not be attractive to offset the revenue cost of introducing an allowance for corporate equity by raising the corporate tax rate, because such a rate increase would likely induce a substantial reallocation of income across countries by multinational firms. Rather, our analysis suggests that it would be appropriate to raise less revenue from source-based corporate taxation, and to consider this reform only as part of a revenue-neutral programme of changes to the tax system as a whole.

18.1. SOURCE-BASED CORPORATE TAXES

The current international convention in taxing corporate profits allocates the primary taxing right to a 'source country', where some element of the production of goods or services takes place. Most countries tax 'resident' companies on their locally generated profits, even if they exempt foreign profits from tax. Company 'residence' may depend upon no more than the formality of incorporation under local law. It may also depend upon whether the company's head office or principal place of business or its effective centre of management is found in the country concerned. Even if the company is not resident in a particular country, however, it is still liable to be taxed there if it conducts any aspect of its business in the country through a 'permanent establishment'. In that case, any bilateral tax treaty is likely to preserve the source country's taxing rights and give it primacy over any claim that the company's country of residence may make to tax the company's foreign profits.

Most multinational companies operate in different countries through locally incorporated subsidiaries. For large corporations with subsidiaries operating in many countries, there are major difficulties in deciding how much of the group's worldwide profits are contributed by each of its subsidiaries—particularly when these affiliated companies are supplying each other with intermediate inputs and finance. Nevertheless, this is what international tax rules seek to achieve, and elaborate rules and procedures have been developed to resolve some disputes between companies and tax authorities over where particular components of profits should be taxed. An important practical consideration favouring source-based corporate taxation may be the relative ease with which local tax authorities can scrutinize the reported profits of local subsidiaries of multinational groups; with tax revenue paid to the source-country government, local tax authorities also have an incentive to collect this revenue appropriately. In any case, this is the basis on which company profits are currently taxed, and it would be difficult for any single country to seek to tax company profits at the corporate level on anything other than a source-country basis. In particular, credit for source-country tax against any residence-country tax on the same profits will usually depend upon the source country's tax conforming to international norms.

18.1.1. Implementation Issues

The current source-based tax arrangements result in very high compliance costs for international companies, and very high administration costs for tax authorities in implementing source-based corporate income taxes. Consider a multinational group with wholly owned subsidiaries in two countries, L and H. Suppose the subsidiary in country L produces an intermediate input, which is purchased by the subsidiary in country H and used to produce a final product which is then sold to unrelated customers. By charging a higher price for this intermediate input in the transaction between its two subsidiaries, the multinational group can make its subsidiary in country L appear to be more profitable, and its subsidiary in country H correspondingly less profitable, with no effect on its worldwide (pre-tax) profits. If the corporate tax rate in country L is lower than that in country H, then the group has a clear incentive to charge as high a price for the intermediate product as it can get away with. By doing so, it shifts taxable income out of country H and into country L, lowering its total corporate income tax payments and increasing its total post-tax profits. Conversely, if the subsidiary that produces the intermediate input happens to be located in the high-tax country, H, while the subsidiary that purchases this input is located in country L, the group would then have an incentive to charge a lower price for the intermediate input, again shifting more of its taxable income into the low-tax country, L.

The prices used to value trade in goods and services between affiliated companies in different countries for the purpose of measuring each company's taxable profits on a source-country basis are known as transfer prices. Governments of countries with relatively high corporate tax rates have a particular incentive to limit the discretion given to companies to determine the transfer prices used in these related-party trades. The general principle used is that of 'arm's-length pricing', which attempts to value goods and services traded between related parties at the prices observed when the same goods and services are traded between unrelated parties. This principle may be difficult to apply, particularly when the intermediate inputs concerned are highly specialized products that may not be traded between any other parties.

In some cases, the arm's-length principle may break down completely. Suppose, for example, that the intermediate input is a mineral mined only at one location in country L, whose only use is in the production process that is used exclusively by the multinational firm in country H. There is no comparison price at which the mineral is traded between unrelated parties. Moreover, we again have a situation here in which worldwide profits would be zero without an essential contribution from the group's operations in the two countries, and there is no compelling division of these profits between the two locations. This example may appear to be extreme in the context of a physical input such as a mineral. However, this situation can arise quite naturally in the case of intangible assets, such as intellectual property—suppose, for example, that the subsidiary in country L is a dedicated commercial research laboratory, established by the multinational firm for the sole purpose of improving its production processes and products. This may become more challenging still if the group has research operations in more than one country which all make essential contributions to the development of a new product or process.

The arm's-length principle may be considered to be flawed more generally. An important reason why multinational corporations exist is likely to be that they enjoy some advantage that cannot easily be replicated by arm's-length trade between unrelated firms. In any case, given the difficulty of finding appropriate arm's-length prices, it is unsurprising that there are many transfer pricing disputes between companies and tax authorities, and that some of these result in costly litigation.

Manipulation of transfer prices is one of many ways in which multinational companies can take advantage of differences in corporate tax rates across countries. Given that interest payments are deductible against taxable profits in most countries, it is tax efficient for a multinational group to locate more of its debt in high-tax countries and less of its debt in low-tax countries. Thus, in our previous example, all else equal, we would expect more of the group's borrowing to be undertaken by the subsidiary in the high-tax country, H, and less of the group's borrowing to be undertaken by the subsidiary in the low-tax country, L. In this way, the group can shelter more income that would otherwise be taxed at the high rate, again shifting more of its taxable income into the low-tax country, L, and reducing its total tax payments. Moreover, if the subsidiary in country L lends to the

subsidiary in country H, this creates a deductible interest payment in country H and a taxable interest receipt in country L. The tax saving in country H exceeds the tax payment in country L, given the difference in tax rates, again reducing the group's worldwide tax payments.

Governments, particularly those in countries with relatively high corporate tax rates, again seek to limit the extent to which multinational firms can use debt to shift taxable profits out of their jurisdictions. This may take the form of 'thin capitalization rules', which effectively cap the amount of interest that can be deducted against taxable profits, perhaps particularly in relation to interest paid to affiliated companies; or 'interest allocation rules', which seek to restrict interest deductibility to borrowing that is used to finance operations within the jurisdiction. However, such anti-avoidance rules tend to be both complex to design and somewhat arbitrary in their effects, resulting in high administration and compliance costs, and numerous legal disputes.

18.1.2. Incidence and Rationale

It is clear that retaining source-based corporate income taxes perpetuates these important administrative problems. So it is reasonable to ask whether there are powerful arguments in favour of retaining them.

One rationale emphasizes the possibility of taxing foreign owners of the corporations operating in the domestic economy. At first sight, this may seem obvious. Domestic firms are owned by foreign shareholders to some extent. Domestic subsidiaries of foreign corporations are largely owned by non-residents. Surely domestic residents will be better off if some of the government expenditure they benefit from can be financed from taxes paid by these foreign shareholders? While there are circumstances in which this could be correct, much will depend on the degree to which the effective incidence of source-based corporate income taxes is borne by the owners of corporations.

We first consider a source-based corporate income tax in the setting of a small open economy with internationally mobile capital and immobile labour. As we have seen in Chapter 17, the standard corporate income tax base includes the component of corporate profits that corresponds to the

normal or required rate of return on investments financed by equity. Suppose there is an array of potential investment projects available to firms in each country, offering different rates of return to potential investors. We first assume that there are no source-based corporate income taxes in any country, and that all investment projects that offer investors a real rate of return of at least 3% attract funding, regardless of where they are located. That is, we have a world of 'perfect capital mobility', in which the location of investment is separated from the location of savings.

Now suppose that one country has a source-based corporate income tax. We focus, for simplicity, on the case where all investment is equity financed. This will then raise the pre-tax rate of return that is needed from investment projects located in that country in order to provide investors with the same post-tax rate of return of 3%. We assume that the required post-tax rate of return that is needed to attract funding in the world capital market is unchanged at 3%, i.e. the country that has this tax is small enough for the resulting change in the global distribution of available post-tax returns to have a negligible impact on the minimum required rate of return. This embodies a 'small open economy' assumption, which separates the required post-tax rate of return from the tax system of the country we are considering.

Suppose that this source-based corporate income tax raises the required pre-tax rate of return from 3% to 4% for investment projects located in that country and subject to the tax. Projects with pre-tax rates of return between 3% and 4%, which would have been attractive to investors in the absence of the tax, will not attract funding. Only those projects with a pre-tax rate of return of at least 4%, and which therefore can offer investors a post-tax rate of return of at least 3%, will attract funding. The main effect of this source-based corporate income tax is that there will be less investment in this country.

We can then ask who is worse off as a result of this source-based corporate income tax. The main implication of this analysis is that, in a small open economy with perfect capital mobility, shareholders are not affected at all by the presence of the source-based corporate income tax. Shareholders continue to earn the same after-tax rate of return on their investments—at least 3% in our example—with or without this tax. They simply invest less capital in the country with the source-based tax and invest more capital elsewhere. With perfect capital mobility, the effective incidence of the tax is

fully shifted away from owners of capital, and on to owners of other inputs that are less mobile. With immobile labour, the effective incidence of the source-based corporate income tax is likely to be borne largely by domestic workers. Lower investment implies less capital per worker and therefore less output per worker, which will result in a lower real wage.[4]

Under these conditions, the source-based corporate income tax then acts as a roundabout way of taxing domestic workers. There is no advantage to domestic residents from taxing foreign shareholders, since shareholders—including foreign shareholders—are unaffected by the presence of the tax. While these assumptions may still be considered extreme, they have certainly become more realistic over time, as the world economy in general, and capital markets in particular, have become more integrated. Recent empirical studies have also supported the main prediction of this simple analysis—that higher source-based corporate income taxes are likely to depress domestic real wages.[5]

In the setting of a small open economy with perfect capital mobility, it can also be shown that source-based taxation of the normal return component of capital income is inefficient.[6] Taxing labour income directly, rather than in this roundabout way, would allow the government to collect the same revenue with more capital per worker, higher productivity, and higher output. Domestic workers could then be better off if any source-based taxes on capital income that tax the normal return to capital were replaced by higher taxes on labour income.

18.1.3. Rents, and Location-Specific Rents

The preceding discussion suggests that there may be a strong argument for not taxing the normal return on corporate investments in modern, open economies. It does not follow, however, that we should not tax corporate income at all. It is important to distinguish between the required or normal

[4] To some extent, the effective incidence may also be borne by owners of domestic land, through less capital per square metre, less output per square metre, and lower rental values. In this case, since rental income will be capitalized in the price of land, the affected owners would be those owning land at the time the tax is introduced or increased.

[5] See e.g. Hassett and Mathur (2006) and Arulampalam, Devereux, and Maffini (2007).

[6] See Gordon (1986).

component of returns on investments, and any surplus component over and above this minimum required return. This surplus or excess component of profits is referred to as 'economic rent'.

In a closed economy setting, it is sometimes suggested that it would be efficient to tax economic rent at a high rate. If all returns in excess of the cost of capital reflected pure rents associated with scarcity—as, for example, in the case of non-renewable natural resources—they could in principle be taxed at rates close to 100%, without distorting investment decisions.[7] Part of these apparent rents may, however, reflect returns to effort by entrepreneurs or innovators, which are not fully reflected in the compensation paid to those individuals. Taxing these 'quasi rents' at very high rates may then discourage desirable activities, although taxing them at rates close to labour income tax rates may still be appropriate.

In an open economy with mobile capital, the case for taxing rents on a source-country basis becomes weaker but does not vanish. Some sources of rents may also be highly mobile. For example, a multinational firm may have a unique product that can be produced at a similar cost in different locations and exported at low cost to many different markets. The firm has market power and so can charge a price well above its production costs, earning economic rents. In deciding where to locate production, the firm is likely to want to maximize the post-tax value of these economic rents. In choosing between two otherwise similar countries with source-based taxes on economic rents, the firm will tend to favour the country with the lower tax rate. This illustrates that taxing economic rents on a source-country basis at a high rate may deter inward investment by multinational firms, even though such taxes have no effect on the cost of capital.[8] Moreover, particularly for highly profitable activities where the normal component of returns is relatively low and the rent component of returns is relatively high, firms may prefer locations that have a standard corporate income tax at a sufficiently low rate, rather than locations that tax only economic rent but at a higher rate. As the discussion of transfer pricing concerns in Section 18.1.1 illustrates, when multinational firms can separate their research and

[7] The effective incidence of such a tax on pure rents would also be borne by the owners of capital, who would just earn lower post-tax rates of return.

[8] Devereux and Griffith (1998) provide further analysis and empirical evidence on the effects of corporate taxes on location choices.

production activities into distinct subsidiaries, the measured rate of return to the production division may be well above the required rate of return, even though the combined rate of return to innovation and production may not be. Such a firm would seek to locate the division with the high reported rate of return in a jurisdiction with a low source-based corporate tax rate.

At the same time, other sources of rents may be highly specific to particular locations. A leading example would be mineral deposits, such as oil and gas fields in the North Sea. In principle, governments could extract economic rents from producers by auctioning the right to develop and extract these scarce natural resources, but this is rarely done in practice. Instead, these activities are often subject to specific taxes, which in some cases aim specifically to tax the economic rents.[9] Other location-specific sources of economic rents may include the presence of workers with particular skills, to the extent that these are not fully reflected in labour costs, and proximity to large markets, to the extent that this is not fully reflected in the cost of land.

The coexistence of some sources of rents that are location specific and other sources of rents that are highly mobile presents a challenge for tax design in open economies. In principle, it would be efficient to tax rents from relatively immobile activities at a higher rate than rents from more mobile activities, since the former are less likely to relocate elsewhere. We do see some examples of such differential taxation in practice, notably in relation to natural resources such as North Sea oil, but these examples are comparatively rare. More generally, there would be considerable practical difficulties in attempting to tax income from different activities at different rates, particularly where these activities may be undertaken by the same firm. The application of special low tax rates to highly mobile business activities has also been discouraged by international agreements, such as the EU Code of Conduct on business taxation, and OECD initiatives on 'harmful tax competition'.

One rationale for these agreements lies in the view that activities that appear to be highly mobile from the perspective of an individual country may be less mobile for a larger grouping of countries, such as the European

[9] An example is the ring-fenced application of UK corporation tax to new North Sea fields, which has 100% investment allowances and no interest deductibility, along the lines of the R-base cash-flow tax discussed in Chapter 17.

Union or the OECD. For example, a car producer selling in the European market may be largely indifferent between locating a new plant in the UK or in Spain, but may be much less likely to choose a location outside the EU. If it is correct that a significantly higher proportion of economic rents are relatively immobile for a bloc of countries, then there could be a considerable advantage to coordination on corporate tax rates within blocs. By acting collectively, countries should be able to extract more revenue from these location-specific rents. Nevertheless, beyond these agreements to limit special tax regimes for particular activities, there seems to be little appetite for greater harmonization of corporate tax rates, even within the countries of the EU.

If we accept the constraint that a single tax rate should apply to all companies, this suggests that the appropriate rate for an individual country will reflect a trade-off between the desirability of taxing location-specific rents and the danger of taxing mobile rents, on a source-country basis, at too high a rate. Taxing immobile rents is desirable partly because such taxation will be borne to some extent by foreign shareholders, but more generally because this provides an efficient source of revenue. Taxing mobile rents risks deterring some internationally mobile investment, with implications for capital per worker and domestic wages similar to those outlined in Section 18.1.2 for source-based taxes on the normal return component of corporate income.

The increased mobility of capital and the rise of multinational companies suggest that the appropriate corporate tax rate is likely to be considerably lower today than in the past. This is broadly consistent with the downward trend in corporate tax rates over the past three decades. Importantly, in the absence of coordination between countries on corporate tax rates, the appropriate or 'competitive' rate for an open economy will depend on corporate tax rates in other countries, which are rival locations for some forms of internationally mobile investment. This is broadly consistent with concerns about a 'race to the bottom' in corporate tax rates, resulting from 'tax competition' between governments to attract investment. However, the presence of some imperfectly mobile sources of economic rent suggests that the appropriate tax rate is unlikely to fall to zero, even in the absence of greater coordination between countries. In so far as larger countries tend to have greater locational advantages for business investment, this would also

suggest that higher corporate tax rates may be more appropriate in larger countries. This is broadly consistent with the pattern of corporate tax rates among developed countries, with relatively high tax rates in larger countries such as Japan and the US, and relatively low tax rates in smaller countries such as Ireland and Estonia.

18.2. DOUBLE TAX RELIEF

The vast majority of corporate income tax revenue is collected in source countries. However, when dividends are paid from a subsidiary company in one country to a parent company in another country, there may be an additional layer of corporate taxation in the residence country of the parent firm.

Within a country, it is common for dividends paid by a domestic subsidiary not to be treated as taxable income when received by the parent company. The rationale for this exemption is clear. The underlying profits, out of which such dividends are paid, are assumed to have been taxed as corporate income of the subsidiary company. These profits will thus have been taxed at that country's corporate income tax rate. If any additional tax were to be charged when such dividends are received by the parent company, this would imply that profits earned by the subsidiary and paid to the parent would be subject to more taxation than profits earned directly by the parent company. Such 'double taxation' would penalize corporate groups that structure their domestic business operations into subsidiary companies. The exemption of dividend income received from domestic subsidiaries simply ensures that profits earned by the parent company and profits earned by the subsidiary are taxed at the same rate, avoiding this distortion to the choice of organizational form.[10]

The situation may be different when dividends are received from a subsidiary company located in another country. It is still the case that the

[10] Conversely, in cases where company profits may not have been taxed at the subsidiary level as a result of tax incentives for research and development or particular forms of investment, this exemption of dividends received from domestic subsidiaries ensures that the intended benefit of these incentives is not withdrawn on distribution.

underlying profits, out of which these dividends are paid, can be assumed to have been subject to corporate income tax in the source country. In the cross-border context, this implies that the underlying profits have been taxed at the corporate tax rate, and according to the rules for calculating taxable profits, in the source country where the subsidiary is located. Both the corporate tax rate and the corporate tax base could be rather different in the source country from in the residence country of the parent firm.

Taxing dividend income received from foreign subsidiaries as ordinary corporate income in the hands of the parent company would still imply double taxation of the underlying profits. In most circumstances, this would imply considerably higher taxation of income generated by cross-border investments than of income generated by domestic investments. Broadly speaking, and in normal circumstances, countries adopt one of two approaches to relieving this international double taxation: the exemption method or the credit method.[11]

The exemption method, as its name suggests, simply exempts dividends received from foreign subsidiaries from corporate taxation in the residence country of the parent. This treats dividends received from foreign subsidiaries in the same way as dividends received from domestic subsidiaries, and results in taxation on a pure source-country basis, with corporate income tax paid only in the source country. This broad approach is used in France, Germany, and many other EU countries.

The credit method is considerably more complicated. Suppose, for example, that a UK parent receives a dividend of £87.50 from a subsidiary in Ireland (which has a corporate income tax rate of 12.5%). Under the credit method, the underlying profits would be deemed to be £100. UK corporation tax would then be charged at 28% on these underlying profits, but with a credit for the corporate income tax of £12.50 deemed to have been paid on these underlying profits by the subsidiary in Ireland. In principle, the UK parent would then have to pay £15.50 (i.e. £28 minus £12.50) in UK corporation tax. This UK corporation tax charge would be lower for dividends received from subsidiaries in countries with a higher corporate

[11] Many countries, including the UK, retain the right to tax the profits of foreign subsidiaries (whether repatriated or not) in limited circumstances under Controlled Foreign Company rules. These generally apply when the subsidiary is located in a tax-haven country, with an unusually low corporate tax rate.

income tax rate than Ireland, and would fall to zero in the case of source countries with a higher corporate income tax rate than the UK. Consequently, the credit method and the exemption method produce the same outcome in relation to dividends received from foreign subsidiaries in source countries with corporate tax rates equal to or higher than that in the residence country of the parent firm.[12] They differ in their treatment of dividends received from foreign subsidiaries in countries with lower corporate tax rates.

In principle, the credit method seeks to tax profits earned by foreign subsidiaries at a rate no lower than the domestic corporate tax rate. This would be the effect, if it were the case that profits earned by foreign subsidiaries are always repatriated immediately to the parent company, in the form of dividends paid directly from the subsidiary to the parent. However, these conditions certainly do not apply. Multinational firms can defer any taxation of foreign-source dividends in the residence country by the simple expedient of retaining profits in their foreign subsidiaries. Groups with operations in many countries can plan to avoid such taxation to a considerable extent, by ensuring that dividends paid to parent companies tend to come from subsidiaries in countries with higher corporate tax rates.

Historically, the credit method tended to be used by major capital-exporting countries, including the US and the UK. In the past, it may have been less straightforward for international firms with simpler structures to avoid paying tax on foreign-source dividends in these residence countries, and the country of legal residence of the parent company may have served as a good proxy for the residence country of the firm's ultimate owners. The rise of complex multinational businesses with global operations and the increase in cross-border share ownership have changed these conditions. Arguably, the legal residence of a parent company now provides a dubious basis for asserting any right to tax (at the corporate level) profits earned by its subsidiaries operating in other jurisdictions.[13] For EU countries, it is also unclear whether it is possible in practical terms to treat dividends received from domestic and foreign subsidiaries differently. The European Court of

[12] Assuming comparable methods of calculating taxable profits.

[13] Although in so far as these profits are the basis for returns on the savings of domestic residents held in the form of equities, they may be taxed on a residence-country basis under the personal income tax.

Justice has indicated that member states can continue to tax foreign dividends with credit even though they exempt domestic dividends, but only if that does not disadvantage cross-border investment relative to domestic investment.[14] In this respect, the compatibility of the UK's previous credit system with Community law remains subject to legal challenge.[15]

The UK government introduced exemption for dividends received from foreign subsidiaries in most circumstances from July 2009. The revenue cost of this reform is expected to be modest. If this proves to be correct, it suggests that in practice there is little difference between the credit method and the exemption method in the context of a modern, open economy. Recognizing this in the tax system then provides a welcome simplification.

Formalizing the exemption of dividends received from foreign subsidiaries may, however, make more transparent the opportunity for multinational companies to shift taxable income out of countries with relatively high corporate tax rates by borrowing in those jurisdictions and using the funds borrowed to equity-finance operations of subsidiaries in locations with lower corporate tax rates. This in turn may increase the pressure for restricting interest deductibility to borrowing that is used to finance domestic investment. While such restrictions may appear to be attractive in principle, the difficulty of associating any particular loan with any particular expenditure may make their design and implementation formidably complicated in practice. Formulating rules whose application is compatible with EU Treaty obligations and which do not raise the cost of debt finance for domestic firms is also likely to be extremely difficult. Conveniently, the need for such restrictions on interest deductibility may be less pressing in a corporate tax system with an allowance for corporate equity, as we explain in the next section.

[14] See Case C-446/04 Test Claimants in the Franked Investment Income Group Litigation v Commissioners of Inland Revenue.

[15] The issue may be the subject of a further reference to the Court of Justice following further UK litigation in the *Franked Investment Income Group Litigation* case.

18.3. ACE IN AN INTERNATIONAL CONTEXT

We now consider some issues that would arise if an open economy such as the UK were to reform its corporate income tax by introducing an allowance for corporate equity (ACE), thereby exempting the normal return on equity-financed investments from its corporate tax base.

The simple introduction of the ACE allowance would not address many of the problems that arise in the implementation of source-based corporate income taxes in the context of international firms. Multinational groups would still have an incentive to manipulate transfer prices to shift taxable profits from their UK subsidiaries to affiliates operating in countries with lower corporate tax rates. Administration and compliance costs would continue to be high as a result, though no higher than they are with a standard corporate income tax base.

If we assume that most other countries continue with a standard corporate income tax base, allowing interest payments to be deducted but with no allowance for the opportunity cost of using equity finance, we might then expect multinational groups to favour equity finance for their UK operations. Using less debt in the UK and more debt elsewhere would still allow interest payments to be deducted, while using more equity in the UK and less equity elsewhere would provide the group with a tax relief not available in most other countries. From the UK perspective, this would simply replace a tax deduction that would otherwise have been claimed in respect of an interest payment by a tax deduction for the opportunity cost of equity finance. Provided the equity is used to finance investment in the UK, this would be an appropriate use of the ACE allowance. Increased borrowing by multinational groups outside the UK may put some additional pressure on thin capitalization rules in other countries, but this is unlikely to be a major concern.

One possible concern is whether dividends paid by UK subsidiaries of foreign firms would then continue to be creditable against foreign corporate income taxes, in countries that continue to use the credit system. Experience with the operation of ACE-style reliefs for the opportunity cost of equity finance, in countries such as Belgium and Croatia, does not suggest that this would be a problem.

Another possible concern is whether multinational groups would be able to exploit an ACE allowance within the UK corporate tax to obtain tax relief in the UK for equity used to finance investments abroad. We do not think this would be a problem. If we consider first a parent company with a domestic subsidiary, we would want the ACE allowance to be claimed by the subsidiary, just as it would be if the same operation were financed by outside shareholders. Any equity issued by the subsidiary and purchased by the parent would add to the stock of equity used to calculate subsequent ACE allowances for the subsidiary, but would also be subtracted from the stock of equity used to calculate subsequent ACE allowances for the parent.

For example, suppose the parent issues equity valued at £1,000 which it uses to subscribe (i.e. purchase) shares in a domestic subsidiary, which then uses the £1,000 to acquire productive assets. The stock of equity used to calculate subsequent ACE allowances for the subsidiary increases by £1,000, while that used to calculate subsequent ACE allowances for the parent is unchanged—the parent's subscription of shares in the subsidiary just offsets its issue of shares to outside shareholders. In each case, the stock of equity used to calculate subsequent ACE allowances increases with the net issue of equity (i.e. sales minus purchases), not with the gross issue of equity.[16] Profits subsequently earned by the subsidiary, net of its ACE allowance, are then taxed at the level of the subsidiary. Dividends subsequently paid by the subsidiary to the parent are not taxed at the level of the parent, as under the current system.

The same rules would apply if a UK parent subscribes shares in a foreign subsidiary. The stock of equity used to calculate the parent's subsequent ACE allowances increases only with its net issue of equity; subscribing shares in any subsidiary, foreign or domestic, would reduce this stock. Consequently, a UK firm that issues equity (or retains profits) to invest in a foreign subsidiary would not benefit from ACE tax relief against UK corporate tax. This approach is fully consistent with the exemption of foreign-source dividends from corporate taxation when received by UK parent companies.

[16] The same would apply if the parent company issues shares to finance the acquisition of (the equity in) a new subsidiary. Similarly, the parent firm's ACE allowances would be reduced if the parent borrows to acquire (additional) equity in a new (or expanding) subsidiary. Importantly, this loss of UK ACE allowances would reduce the incentive for an international company to borrow in the UK to equity-finance investments by their foreign subsidiaries.

Since the treatment of domestic and foreign subsidiaries would be identical, this arrangement should also comply with EU Treaty obligations.

If the foreign subsidiary is located in a country with a standard corporate income tax, then the required rate of return on this cross-border equity-financed investment would be higher than the required rate of return on an equivalent domestic investment. But this is just a consequence of the absence of an ACE allowance in the foreign corporate income tax. Conversely, the presence of an ACE allowance in the UK corporate tax would make the UK a more attractive location for equity-financed investments. This effect of the ACE system should nevertheless not be in breach of the UK's EU Treaty obligations because it arises from the interaction of the two corporate tax systems—the standard corporate income tax in the other member state and the ACE system in the UK—rather than representing discriminatory treatment of cross-border investment by the UK.

18.4. CONCLUSIONS

Our discussion in this chapter has emphasized problems in the implementation of source-based corporate income taxes in an open economy setting. The case for source-based taxation of the normal return component of corporate profits appears to be particularly weak in this context. There are stronger arguments for retaining a source-based corporate tax that exempts the normal return component of profits and taxes only economic rents. The appropriate tax rate will depend on the extent to which the sources of these rents are location specific or internationally mobile.

While it may be tempting in light of these arguments to abandon source-based corporate taxation altogether, at least in the UK context this would be a very expensive reform. Over the period 1997–2008, revenue from corporation tax provided around 8.5% of total government revenue.[17] Without radical reform of personal taxation, it is not clear that much of this revenue would be recouped through the taxation of capital gains and dividend income.

[17] OECD Revenue Statistics; corporation tax as a percentage of total taxation.

A less radical approach would be to reform the corporate tax base so that the normal return component of profits would not be taxed. The introduction of an allowance for corporate equity would achieve this, together with the continued deductibility of interest payments on debt. This reform appears to be quite feasible for an open economy such as the UK, and capable of implementation in a manner that is compatible with EU law. Indeed, Belgium has recently introduced this kind of tax relief for the opportunity cost of equity finance.

This reform would narrow the corporate tax base, almost certainly resulting in lower corporate tax revenue. The revenue cost would depend on several factors that are difficult to estimate, notably the relative importance of the risk-free interest rate, the risk premium component of the required return on capital, and economic rent, in the composition of the average (pre-tax) rate of return on taxed corporate capital. If, for example, the risk-free real interest rate is around 3% and the average real return around 12%,[18] then the revenue cost could be of the order of one-quarter of corporate tax receipts, or around £9 billion in the UK in 2009–10.[19] In the longer term, any additional UK investment that results from the lower cost of capital implied by the presence of the ACE allowance would generate additional taxable profits and thereby offset part of this revenue cost.[20]

If an ACE allowance were to be introduced, should this revenue cost be recouped by increasing the corporate tax rate? Our discussion of the trade-offs in determining the appropriate rate for a source-based corporate tax on economic rents in an open economy setting cautions against this approach. The international trend in corporate tax rates has been downward, and a country that bucks this trend also risks sending a dangerous signal to

[18] The *ex ante* real interest rate implied by ten-year UK index-linked gilts has fluctuated in the range 1–3% over the period 1998–2008 (Joyce, Sorensen, and Weeken, 2008, chart 4). The UK Office for National Statistics estimate of the net rate of return for UK private non-financial corporations varied between 11.8% (2001) and 14.5% (2006) in the period 1997–2009.

[19] This crude estimate is only intended to give an indication of the order of magnitude and obviously neglects many factors that could be important. The effect of inflation on the current corporate tax base suggests the cost may be higher. Conversely, the fact that interest payments on debt are already deductible suggests that the cost may be lower.

[20] Simulations of the introduction of an ACE allowance reported in de Mooij and Devereux (2009) suggest that around half of the initial revenue cost may eventually be recovered in this way.

investors. If a source-based tax on the normal return component of corporate profits is undesirable, and the current UK corporate tax rate is considered more or less appropriate, the implication is that less revenue should be raised from the corporate tax.[21]

We recognize that the cost of introducing the ACE allowance could alternatively be used to simply reduce the corporate income tax rate. At a lower tax rate, all the distortions associated with a standard corporate income tax that we highlighted in the previous chapter would be correspondingly reduced. But fundamentally we would be left with an unsatisfactory tax base. By reforming the corporate tax base, these distortions would be eliminated, at a similar revenue cost.

Further downward pressure on tax rates or revenues that can be collected from source-based corporate taxes may require more fundamental reforms in the longer term. In this context, the proposal to implement a cash-flow corporation tax on a destination basis, as suggested by Auerbach, Devereux, and Simpson (2010), may have considerable appeal. Taxing company profits in the jurisdiction of final sales to consumers would eliminate corporate tax distortions to location decisions of international companies and remove most opportunities to shift taxable profits between jurisdictions. Although we note that similar results could also be achieved by increasing broad-based VATs with offsetting reductions to payroll taxes.

This chapter has focused on the taxation of large, international companies. The ACE allowance considered here has a natural counterpart in the rate-of-return allowance considered in Chapters 13 and 14, in the context of the personal taxation of income derived from savings. The next chapter considers how a tax system with a rate-of-return allowance at the personal level and an allowance for corporate equity at the corporate level would fare in the thorny area of small business taxation.

[21] As we discuss further in Chapter 20, the simulation analysis in de Mooij and Devereux (2009) also suggests that there may be substantial gains in productivity and economic welfare if the introduction of an allowance for corporate equity in the UK is financed by increasing a broad-based consumption tax, though not necessarily if the cost of the ACE allowance is financed by increasing the corporate tax rate.