

Executive Summary

The project underlying this publication on policy considerations in the taxation of foreign direct investment (FDI) has three main objectives. The first is to provide a review of empirical studies of the effects of taxation on FDI flows, aimed at better understanding what factors explain variations in estimates of the sensitivity of FDI to taxation. This review is supplemented with an overview of various economic models used by policy makers to analyse possible tax effects on FDI decisions.

A second objective is to report considerations relevant to the development of policy in relation to the tax treatment of inbound and outbound FDI, identified during a *tour de table* roundtable discussion on the topic amongst OECD tax officials. While perspectives and positions vary from one country to another, to a large extent they are based on a common broad set of considerations including revenue requirements, efficiency (welfare) considerations, fair domestic competition concerns, and pressures to provide internationally competitive tax treatment.

A third objective is to develop an approach for incorporating commonly-employed cross-border tax-planning strategies in effective tax rate models used to identify tax distortions to investment. This work would relax a number of restrictive assumptions adopted in a previous OECD publication, *Taxing Profits in a Global Economy* (OECD, 1991) reporting effective tax rates on cross-border direct investment: non-intermediated (direct) holding structures; fixed financial weights that may be unrepresentative in certain cases; immediate repatriation of profits; no mixing of foreign tax credits in dividend credit systems to shelter foreign interest or royalty income; no account of hybrid instruments or hybrid entities.

Models for analysing tax effects on FDI

To guide tax policy in relation to FDI, policy analysts may rely on one or more economic models or frameworks to examine possible channels of influence. A selection of these includes: the OLI framework; the OECD policy framework for investment; the neo-classical investment model, and models derived from the new economic geography literature.

Under the OLI framework, FDI decisions involve an assessment of ownership, location and internalisation (OLI) conditions. Horizontal FDI involving production abroad can be expected in place of exports or licensing where OLI conditions are met. First, an MNE must possess *ownership advantages* (patents, know-how, trademark) conferring profit advantage over local firms in foreign markets. Second, FDI must offer *location advantages* (e.g. low trade, labour or energy costs, low tax burden) that make local production more profitable than exporting. Third, FDI must offer *internalisation advantages* that make undertaking a business activity directly through FDI more profitable than licensing to other firms in

foreign markets the right to use assets conferring ownership advantage, for example by safeguarding knowledge capital. Vertical FDI decisions over locating or outsourcing certain stages of production to a foreign location similarly centre around ownership, location and internalisation advantages.

The Policy Framework for Investment (OECD, 2005), targeted at policy makers in developing and transition economies, proposes guidance in ten policy fields including tax, in an effort to identify priorities and help develop effective policies. The tax chapter draws largely on survey studies to identify key issues in weighing the pros/cons of corporate tax incentives and alternative tax policies and design options to attract FDI, while also raising revenue from FDI to help finance infrastructure development.

In setting the tax burden on inbound investment, policy makers are encouraged to assess whether their host country offers attractive risk/return opportunities, taking into account framework conditions (*e.g.* political/monetary/fiscal stability; legal protection; public governance), market characteristics (market size, availability/cost of labour, energy, state of infrastructure) and the prevalence of location-specific profits. As emphasised in the tax chapter, host country framework conditions and market characteristics depend in part on past and current levels of public expenditures on programs in areas of critical importance to investors (*e.g.* education, infra-structure development). This link establishes the critical importance of collecting tax where possible on economic profit in order to finance public expenditures that strengthen host country fundamentals and attract FDI.

Perhaps the framework most widely used by public finance economists to analyse tax effects on domestic and cross-border direct investment is the neo-classical investment framework. A main attraction is its incorporation of main statutory tax parameters influencing capital costs and establishing the statutory tax burden on investment returns. In particular, parameter-based marginal and average effective tax rates (METRs/AETRs) derived from the neo-classical investment model may be analysed to determine the percentage change to these tax burden measures resulting from a single or package of corporate tax policy adjustments. When combined with empirical estimates of the sensitivity of FDI to these effective tax rates, the framework lends itself to estimating the long-run effects of corporate tax reform on FDI.

At the same time, such summary tax measures must be used with care as they ignore a number of factors influencing the actual tax burden on FDI (*e.g.* tax-planning, administrative discretion in deciding tax liabilities, other taxes not captured by the model). Some would also question, at least in certain cases, the central assumption of declining marginal productivity of capital. In particular, business concentrations may give rise to increased rates of return (increasing returns to scale at the industry level), with possibly very different policy implications.

Central predictions of the neo-classical theory of investment as regards tax effects on investment have been challenged in recent years by the new economic geography framework, emphasising the role of self-reinforcing business concentration (agglomeration) economies. Under the core-periphery (CP) model, market access effects may dominate and create incentives for firms to locate production in large markets, to reduce transportation costs, and to export to small markets. With firms profiting from concentration economies, a degree of inertia is predicted in the location choice of firms, implying a degree of fixity of economic profits that can be taxed up to some point without discouraging investment.

In a standard neo-classical investment model where capital stocks are adjusted such that after-corporate tax rates of return are equalised across locations, an increase in the tax rate in country A would cause capital to relocate from country A, causing pre-tax rates of return in A to rise, and in other countries to fall, until after-tax rates of return are again equalised. In contrast, under a CP model, the same tax rate increase may not lead to significant capital relocation if business concentration benefits of country A more than offset the higher tax burden. However should country A increase its tax rate significantly, business concentration economies may be more than outweighed by a higher tax burden, causing capital to relocate from country A. Business concentration economies imply that effects of tax rate changes will be non-linear – policy adjustments under certain conditions may have minimal impact on the location of capital, while subsequent adjustments may have dramatic effects. Thus the response of capital to past reforms may offer a poor guide to gauge the impact of similar reforms, and the (common) assumption of a linear relationship between FDI and tax may be inappropriate for statistical work.

Empirical evidence of tax effects on FDI

At the centre of policy debate over the appropriate setting of a host country's corporate tax rate on business profit is the difficult question of the sensitivity of FDI to corporate taxation. Addressing this question is critical to an assessment of how best to address competitiveness pressures and avoid capital relocation, while also central to cost/benefit assessment of tax relief, and to estimates of the revenue response to a corporate tax policy reform.

As reviewed above, frameworks based on the standard neo-classical investment theory predict increased (decreased) inbound FDI following a decrease (increase) in the host country corporate tax burden (if not offset by adjustments to home country foreign tax credits). However, this central prediction is challenged by the new economic geography literature which emphasises the importance of accounting for location-dependent profits from business concentration economies and increasing returns to scale at the industry level, where such profits can be taxed up to some point without encouraging significant capital relocation.

The central policy question of the sensitivity of FDI to taxation is thus an uncertain empirical issue, to be addressed if possible taking proper account of the influence of market size, trade (e.g. transportation) costs, and other factors affecting net profitability and investment location decisions. A recent contribution to this work is provided by Hajkova *et al.* (2006), who investigate the impact of tax on FDI while controlling for a number of policy and non-policy factors, and find that not controlling for such factors may lead to serious overestimation of tax elasticities.

A literature review carried out for the current project by Mooij and Ederveen (2005) finds most studies reporting a negative relationship between taxation and FDI, but with a wide range of estimates of the tax elasticity of FDI. The variability in elasticity estimates may not be surprising, given the degree of heterogeneity in the data employed. In other words, one might expect *a priori* that the sensitivity of FDI to taxation would vary and depend on host country conditions and policies (including the level of corporate tax rates), types of industries/business activities covered, the time period examined, and other factors. Indeed, the literature review suggests that the influence of tax on FDI is complex and depends on a number of difficult to measure factors, with additional empirical work required to better understand the role of taxation amongst key factors influencing FDI location decisions.

The literature review finds an average semi-elasticity value of -3.72 (measuring the percentage change in FDI in response to a 1 percentage point change in the tax rate). Distribution analysis finds a majority of semi-elasticities in the range of -5 and 0 . Summary results for various studies (time series, cross section, panel and discrete choice) are provided in Table 0.1.

Table 0.1. Summary statistics of empirical studies of the sensitivity of FDI to tax

	Semi-elasticity			Ordinary elasticity		
	Mean	Median	Std. dev.	Mean	Median	Std. dev.
Time series	-2.61	-2.75	6.03	-1.23	-1.28	2.87
Cross section	-7.16	-4.24	6.92	-0.85	-0.78	0.44
Panel	-2.73	-2.41	2.69	-0.78	-0.66	0.75
Discrete choice	-3.43	-2.80	6.42	-0.30	-0.19	0.51
All	-3.72	-2.91	5.92	-0.75	-0.57	1.55

Source: De Mooij and Ederveen (2005).

A META-analysis of results finds that the share of FDI that comprises real investment in physical capital is more responsive to taxes than other components of FDI. Evidence is not found showing that FDI from dividend exemption countries is more tax responsive than FDI from dividend credit countries, suggesting that tax-planning renders distinctions between these systems of little importance in terms of impacts on FDI. Furthermore, empirical results do not find intra-EU capital flows to be more responsive to host country tax differences (contrary to expectations that the elimination of barriers to the free flow of capital within the EU would make tax a more influential factor). Studies for intra-EU capital flows yield smaller semi-elasticities than studies based on US data. Lastly, studies using more recent data are found to produce larger semi-elasticities, indicating that FDI is becoming more responsive to taxation over time.

Taxation of inbound FDI – Policy considerations and perspectives

An important aim of the *Tax and FDI* project has been to benefit from an exchange of views of tax policy officials of OECD countries on considerations guiding the treatment of inbound and outbound FDI. For inbound FDI, policy interest may arise on account of the potential for a *net* increase in domestic income, shared with government through taxation of wage and salary income and profits of foreign-owned companies, and possibly other taxes on business (e.g. property tax). These flows must be additional and not represent displacement effects. FDI may also positively affect domestic income through spillover effects.

The prospect of these benefits creates pressure on government to ensure that its tax system is supportive of FDI. Counter to possible revenue requirements and fair domestic competition arguments for the taxation of profits on inbound FDI at the same effective rate as imposed on resident domestic-owned businesses, “international competitiveness” concerns and pressures are felt in virtually all countries to somehow accommodate a relatively low host country tax burden. Where inbound FDI is regarded as particularly mobile and sensitive to host country taxation, governments may be encouraged to target

tax relief to FDI to the exclusion of domestic-owned firms (*e.g.* through tax incentives, or through weak or lax enforcement of base protection provisions), or to reduce the tax rate on income from capital more generally.

Efficiency considerations

In recent years, the dynamics of international tax competition have been widely studied and debated, with an eye to assessing tax policy reaction to and potential efficiency effects of competition for a geographically mobile capital tax base. Under a basic tax competition model that ignores labour taxation, increased capital mobility is predicted to result in tax rates on capital income that are set inefficiently low from a public perspective. Other predictions include large countries competing less for capital through rate cuts, and higher per capita income in smaller countries with lower tax rates and higher capital/labour ratios.

Extending the analysis to include the taxation of immobile labour finds that it is optimal for a small capital-importing country facing a perfectly elastic supply of foreign capital to waive host country income tax on inbound FDI, with this tax being fully shifted onto labour. Under this situation, it is optimal for the host country to instead tax labour income directly, and avoid production efficiency losses that result from taxing capital income. Subsequent work finds that if economic profit cannot be fully taxed, then some host country taxation of inbound FDI by small capital importing countries is efficient.

When introducing trade costs and business concentration economies emphasised in the new economic geography literature, certain results from neo-classical models carry over, while other predicted effects are qualified. Where capital is more mobile, accompanying reduced trade costs or more generally when business concentration forces decrease, the optimal tax rate for a host country declines (consistent with the basic tax competition model.) Furthermore, the impact on location choice of tax rate differences between two countries is predicted to differ across industries that differ in terms of the importance of business concentration benefits. A further insight is that tax competition effects may differ depending on whether foreign capital benefits or not from the provision of local public goods.

Views on linkages between host country taxation and FDI

Inbound FDI is recognised as being attracted by macroeconomic stability; a supportive legal and regulatory framework; skilled labour and labour market flexibility; well-developed infrastructure; and business opportunities tied to market size (with profitability of the domestic market tied to the purchasing power of the population, and foreign markets reached via an extensive network of trade agreements). In other words, a number of non-tax factors are central drivers to FDI decisions. Sound tax policy establishes a basis for fiscal stability which strengthens the business climate. Additionally, in certain cases, tax may be an important factor influencing location decisions.

For policy-makers and academic researchers alike, accurate estimates of the FDI response to host country taxation are difficult to make, given the need to consider jointly tax and non-tax factors in different locations, and the prospect that the tax elasticity of FDI may vary considerably across business activities, host countries and time. Indeed, a complicating factor is that the possible impact of host country tax on FDI will differ across countries with varying host country characteristics (non-tax factors).

Part of the difficulty is not knowing with certainty what the relevant tax burden measure is to focus on. To some, relevant tax comparisons stop at the statutory “headline” tax rate. Others take the view that final effective tax rates are more important in explaining FDI than the statutory corporate tax rate alone, albeit with some uncertainty over the level of tax detail (including tax planning) accounted for.

In terms of empirically assessing tax effects on FDI, one view is that realised (backward-looking) average effective tax rates are the most relevant figure and that this measure is a better predictor than forward-looking marginal effective tax rates (cf. OECD, 1991) and much better than statutory tax rates which ignore tax-planning effects and special tax arrangements. This view suggests that effective rates inclusive of tax base provisions and tax-planning are factored in by investors.

While much attention is typically given to corporate income tax, the potential importance of other taxes must also be recognised. Taxes such as energy taxes and payroll taxes are important, and according to some officials, are becoming much more important. This is because companies “have already taken care of the corporate income tax”, in the sense that corporate tax is paid at levels acceptable to managers. This observation lends weight to the perception that multinationals have many tax-planning techniques at their disposal, and may be able to effectively decide the level of host country tax on profit that they will pay.

Another key point on which there is broad agreement is that a low host country tax burden cannot compensate for a generally weak or unattractive FDI environment. There are numerous past examples of where poor infrastructure and other weak investment conditions have deterred FDI. Tax is but one element and cannot compensate for weak non-tax conditions. Also, where higher corporate tax rates are matched by well-developed infrastructure, public services and other host country attributes attractive to business, tax competition from low-tax countries not offering these advantages is not regarded by a number of policy-makers as seriously undermining the tax base.

While certain empirical studies find a strong negative relationship between host country taxation and FDI, others do not. Also, a number of large OECD countries with relatively high effective tax rates are very successful in attracting FDI. This suggests the importance of market size in attracting FDI and the presence of location-specific profits that governments are able to tax. It may also be observed that certain countries without a large domestic market have been very successful in attracting business, while ranking high in terms of their tax-GDP ratio. However, while their overall tax burden may be high, the tax burden on business may be moderate or relatively low and form part of an attractive investment strategy.

Responding to international tax competition

Increased attention is being given by countries to “tax competition” for inbound FDI, linked to the increasing mobility of capital and pressures to offer a competitive tax system. While it is often difficult to ascertain the relative importance of tax amongst other investment determinants in swinging location decisions, certain perceptions and approaches of policy-makers in addressing this area may be identified.

To begin, host country tax comparisons tend to be made with similarly situated countries, in terms of location and market size. A common view is that host country tax considerations are likely to matter more to location choice when other key investment determinants are roughly equivalent. Thus, while tax considerations generally are not a

principal factor determining FDI flows, the influence of tax on FDI decisions may be expected to be greater within the EU (than possibly other regions) to the extent that there is more or less a “level-playing field” in other policy areas [a view not supported, however, by the empirical (META) analysis noted above].

There is broad recognition that international tax competition is increasing, and that what may have been regarded as a competitive tax burden in a given host country at one time may no longer be (ignoring other factors) following rounds of corporate rate reductions in countries competing for FDI. However, recognising also that FDI depends largely on non-tax factors and policies (including education policies, infrastructure and labour market relations) which have evolved over time, it is generally difficult to assess the need for and effects of reductions in host country tax rates.

A number of alternative policy approaches in responding to tax competition can be identified in OECD countries. Many tax officials underline the attractions of reducing the statutory corporate income tax rate as a means to encourage FDI: a relatively simple tax adjustment to introduce; readily observed; directly relevant to investors who anticipate earning pure economic profits; efficiency improving when combined with base broadening; and reducing tax-planning pressure against the domestic tax base. For EU countries subject to State Aid rules and Code of Conduct rules prohibiting provisions that discriminate in favour of FDI, attention is focused back to the statutory rate as a broad-based mechanism to reduce the host country tax burden. However, such reductions tend to be expensive in terms of revenue foregone, may be observed as unfair, and may create tax arbitrage problems with the personal income tax system.

While the experience of some officials is that host country tax comparisons by investors often stop at the statutory tax rate, others take the view that other main tax provisions are also routinely factored into effective tax rate comparisons and should be given policy attention. Examples of general tax relief substituting for or supplementing statutory rate cuts include: ensuring tax base provisions (*e.g.* tax depreciation) are consistent with international norms; removing capital taxes; and providing generally-available tax relief of particular benefit to certain activities (*e.g.* ACE-type notional interest deduction).

Rather than reducing the burden of tax provisions of general application, certain countries prefer to explicitly target tax relief with the aim of encouraging additional FDI at a lower cost in terms of foregone tax revenue. Targeting mobile activities (*e.g.* shipping, films, export-oriented, head-office) is regarded by some policy makers as an attractive option. In considering reductions in the effective tax rate on the most mobile elements of the tax base, the tax treatment of interest and royalty income is increasingly under review, with some countries indicating the dependence of their future policy actions on the actions of others. Some tax systems target certain activities as a matter of national industry policy, while in others, activities are targeted only where there is believed to be market failure.

Many countries point to steps being taken to remove impediments to FDI (taken in isolation, or alongside adjustments to statutory tax provisions). Examples include steps to improve transparency and certainty of tax treatment. Officials in a number of OECD countries explain that they are giving increased attention to ruling procedures which help provide certainty of tax treatment in advance of a given investment or transaction. Tax treaties and mutual agreement procedures (MAPs) are also identified as key to certainty and stability in the treatment of cross-border investment.

Another main concern in the treatment of inbound FDI is responding to tax avoidance, viewed generally as a growing problem to address. While reductions in statutory CIT rates are generally helpful in terms of attracting FDI and reducing tax planning pressures, the scope for such reductions is limited. A main challenge is that tax savings may be realised in a given host country by shifting taxable profit of an enterprise to a related affiliate in a tax haven even if the host country corporate tax rate is low. As there are costs involved in tax-planning, limits to the amount of profit that may be shifted, and multiple opportunities to tax plan for a multinational operating in many countries with varying corporate tax rates, presumably tax-planning pressure on the tax base would be largely reduced at some non-trivial corporate tax rate. However, determining this threshold value or range of values is not immediately obvious, although there appears to be general agreement that the threshold is falling as statutory tax rates fall and professional tax-planning advice is more accessible.

Another challenge is striking an appropriate balance of policy considerations in devising rules that adequately protect the tax base (general and specific anti-avoidance provisions including thin-capitalisation and transfer pricing rules) without imposing excessive compliance costs on firms, or otherwise hampering normal business operations. In other words, just as tradeoffs are faced in adjusting the effective tax rate on FDI through statutory provisions, similar tradeoffs are faced in increasing the effective rate through more robust enforcement.

A central difficulty is accurately weighing up international competitiveness arguments that business will locate elsewhere unless the host country removes or significantly weakens the reach of its base protection measures (*e.g.* thin capitalisation rules). Where a given tax-planning structure is found to be outside the spirit or general intention of the tax rules, while possibly inside the letter of the law, governments may be reluctant to tighten the law, given uncertainty over the FDI response. In particular, concerns over international competitiveness, alongside claims by business groups that accommodating treatment is available elsewhere in other host countries, may condition a government's stance. Moreover, with increasing sophistication of business structures and operations, a real difficulty is in determining where tax should be paid in an economically rational way and distinguishing in legislation between avoidance transactions and arrangements, and legitimate ones.

At the same time, if policy leans too much in favour of accommodating business persuasion that the host government avoid complex or otherwise difficult base protection provisions, revenue goals may be compromised alongside weakened public perception of fairness in the tax system. These perceptions may further threaten tax revenue collection by encouraging non-compliance in other areas.

Taxation of outbound FDI – Policy considerations and perspectives

The *Tax and FDI* report also provides a review of policy considerations and perspectives guiding the taxation of outbound FDI, based on an exchange of views of OECD tax officials, where attention appears to be increasingly focused on pressures to provide competitive tax treatment and surrounding issues, including efficiency implications of alternative approaches to taxing foreign source income. This attention does not imply that revenue and

other considerations are judged to be unimportant; indeed, revenue constraints are implicitly in the background throughout debate amongst policy makers on the topic, as they constrain policy options in most countries. But the more controversial and difficult aspects appear to be those surrounding international competitiveness concerns, raising many questions where the answers are not obvious and where difficult tradeoffs are confronted.

Arguments for favourable tax treatment of outbound FDI often point to possible home country benefits: efficient access to foreign markets, production scale economies, and spillover benefits leading to increased net domestic income. At the same time, concerns may arise that these potential benefits will be outweighed by reduced domestic activity if outbound FDI substitutes for domestic investment. However, these concerns assume that the domestic capital stock can be maintained in the absence of outbound FDI. Where foreign markets are more efficiently reached and/or factors of production can be accessed at lower cost through a foreign presence, FDI may allow home-based companies to grow and achieve economies of scale otherwise not possible.

As with policy decisions over the treatment of inbound FDI, a number of considerations and constraints are normally balanced when setting rules over home country taxation of active business income earned on outbound FDI. Counter to possible tax revenue requirements and fair domestic competition arguments calling for the taxation of foreign profits and domestic profits at equivalent rates, international competitiveness considerations weigh heavily and effectively towards no or only limited home country taxation of foreign profits. Calls for preferential tax treatment of outbound FDI also find some support in the optimal taxation literature.

Efficiency considerations

The standard (basic) economic framework used to assess efficiency implications of taxing profit on FDI assumes that under competitive conditions and without taxation, investors will adjust capital stocks until (pre-tax) rates of return on domestic and foreign capital are the same. With taxation of investment returns, where investors equate after-corporate tax rates of return, the same outcome is predicted if the corporate tax rate on domestic profit equals the combined host and home country corporate tax rate on foreign profit, as under a dividend credit system (ignoring credit limitations). This analysis underpins the *capital export neutrality* (CEN) criterion.

The first main challenge to CEN considers variable domestic savings and provides support for *capital import neutrality* (CIN), aimed at maximising efficiency in savings decisions, realised where the marginal utility of savings is equated across investors. CIN requires that all individual investors, regardless of their residence, earn identical after-tax rates of return on their savings (and thus have the same incentive to save). Where countries exempt foreign profit from home country tax, arbitrage at the corporate level would tend to equate across countries rates of return net of host country corporate tax. Ignoring or in the absence of personal tax of foreign income, the conditions for CIN would be met under a dividend exemption system.

Subsequent analysis highlighting the importance of factoring in revenue requirements, taxes on labour income, and taxes on pure economic profit, offer only limited grounds to reject CEN, with scope for savings inefficiencies being limited to the extent that the level of domestic savings allocated to corporate equity does not vary significantly with the rate of taxation.

While the literature finds some support for taxing foreign income at domestic rates, the requisite conditions are difficult to meet and justify in practice. First, providing an unlimited credit for foreign tax creates incentives for capital importing countries to raise their host country tax burden. Thus foreign tax credit limitations are in order to avoid pure transfers of revenue. Second, with administrative and cash-flow problems accompanying current taxation of retained profit, deferred taxation of foreign income is called for. Third, home taxation of low-tax profits may not be feasible where this tax burden means that resident firms cannot compete with local/other producers not subject to this level of tax.

More recent contributions to the literature consider the implications of local competition. In a world without taxes, capital in a given location would tend to be owned by companies with superior production technologies. However, this outcome may not be observed, implying production inefficiencies, where different investors are subject to different home country tax rules. With a focus on local competition for the ownership of capital, and assuming perfect portfolio capital markets that equalise the cost of funds across firms, the *capital ownership neutrality* (CON) criterion requires that taxation does not disturb ownership patterns which, when free of tax considerations, would tend to maximise total world output through a competitive bidding process that generally results in firms with higher productivity outbidding others competing for capital. According to its proponents, CON can be achieved where countries adopt exemption systems so that all firms located in a given host country are subject to the same local (host country) tax rules.

In a recent paper, Grubert and Altshuler (2006) point out that the CON efficiency rule implicitly assumes that inbound investors face only local competitors operating in the same host location. While this may be the case for certain business activities earning location-specific rents, it will not be the case for geographically mobile business activities – those that may produce and meet output demand efficiently from any one of a number of locations, for example by employing mobile intangibles. In such cases, consideration must be given to effective tax rates in (all) host countries in which competing businesses are located, which may differ considerably across host countries.

Furthermore, both CON and CIN ignore effects of corporate tax-planning on effective tax rates, and in particular miss the fact that various forms and degrees of income shifting will result in different effective tax rates on profits for different competing investors, even where competition is localised in one country. Consideration of the implications of tax-planning and cross-border/global competition between investors operating from different locations lead Grubert and Altshuler (2006) to conclude that policy prescriptions under CEN as well as CIN and CON cannot provide production efficient results in all cases, and moreover policy cannot feasibly be adjusted to apply different rules in different cases. Income tax policy may however aim to counter outcomes that would result in very high or low (in some cases negative) effective tax rates that are not justified under any efficiency standard.

Policy perspectives and practices

Tax officials in a number of OECD countries underline the goal of tax neutrality (equivalent tax treatment of returns on domestic and foreign investment) as central to the adoption of a dividend credit system to tax the profits of foreign subsidiaries. Indeed, in some countries, capital export neutrality (CEN) is identified as the core principle underlying the adoption of a dividend credit system. When taxing foreign profit at the

same rate as domestic profit, resident investors are encouraged to structure investment plans on the basis of business (as opposed to tax) considerations aiming to maximise pre-tax rates of return.

At the same time, international competitiveness considerations influence policy adjustments to a greater or lesser extent, implying some compromises in leaning towards business demands for more lenient home country tax treatment, as provided elsewhere. In some cases, departures from the requirements for neutral treatment are such that they yield tax relief not dissimilar to (and in some cases greater than) that under a dividend exemption system.

Equivalent treatment of domestic and foreign source income requires current taxation at the home country corporate tax rate of pre-tax distributed and retained foreign profits, with full relief for underlying host country income and withholding tax. In practice, these conditions are viewed as unattainable for a number of reasons. It is instructive that one OECD country has recently moved to exempt foreign capital gains from tax, given widespread tax-planning aimed at claiming foreign capital losses against the domestic base, while escaping domestic tax on foreign capital gains.

Other reasons are cited by tax officials explaining why effective tax rates on outbound FDI may be lower than rates on domestic investment. A recent phenomenon is the use of “hybrid instruments”, securities regarded by a host country as debt, and by a home country as equity. Also the absence or weak application of anti-deferral/anti-exemption (controlled-foreign company (CFC)) rules that permit the use of triangular structures involving finance affiliates in no/low-tax jurisdictions result in relatively low and possibly negative effective tax rates on FDI. Furthermore, even where CFC legislation is in place denying deferral of these amounts, various techniques (*e.g.* use of hybrid entities) may be used by taxpayers to circumvent application of those rules.

Most OECD countries operate dividend exemption systems, consistent with capital import neutrality (CIN) and capital ownership neutrality (CON) criteria. Exempt treatment may improve efficiency where it avoids a possible tax impediment to FDI by production-efficient domestic firms. By waiving home country tax on foreign business profit, resident investors may compete on equal tax terms with other investors in foreign markets, with all investors in a given host country subject to host country tax alone. At the same time, departures from neutral treatment of foreign and domestic profit under dividend credit systems may yield tax relief on FDI that is not dissimilar to that available under dividend exemption.

In addition to addressing the taxation of foreign profit, the tax treatment of inter-affiliate foreign interest and royalty income must also be considered when comparing the tax burden on outbound FDI and domestic investment. Common practice in home countries (with dividend credit or exemption systems) is to tax foreign interest and royalty income of resident companies, while providing a home country tax credit or deduction giving relief in respect of foreign withholding tax. While often overlooked, tax neutrality between domestic investment and FDI requires current taxation at the home country corporate rate of foreign interest and royalty income deducted at source (against foreign profit) and paid to a domestic parent company (or other related domestic affiliate), combined with an offset for foreign withholding tax. This respects the matching principle (that the receipt of payments deducted at source be taxed in the hands of the recipient) and recognises that foreign earnings may be

repatriated using a combination of returns including these inter-affiliate payments that unlike foreign dividends are deductible at source.

While home country taxation of foreign interest and royalty income (with relief for foreign withholding tax) helps align tax rates on domestic and foreign investment, effective tax rates may be relatively high (low) on FDI compared with domestic investment where foreign profit is taxed at a relatively high (low) effective host country rate. Where domestic and foreign tax rates differ, some degree of convergence may be achieved under credit systems through cross-crediting provisions of foreign tax credit rules that allow excess foreign tax credits on high-taxed foreign dividends to offset domestic tax on low-tax foreign income (and thereby reduce the overall tax burden on FDI). However, the ability to apply excess foreign tax credits (*e.g.* to offset home country tax on foreign royalty income) may mean effective tax rates on FDI in a given host country under a dividend credit system that are below rates that would apply under an exemption system.

International competitiveness concerns and policy responses

Increasingly, the international competitiveness of tax systems is being judged in terms of the treatment of not only inbound investment, but also outbound FDI, with the latter introducing a complex set of considerations and difficult tradeoffs. Discussions on the topic reflect on the willingness of countries to accept limits to the taxation of foreign source income, including deferral or the waiving of home country tax on income of foreign affiliates resident in low/no-tax jurisdictions, and how the limits of this willingness are being tested.

Virtually all OECD countries are willing to accept the basic international competitiveness argument that a domestic parent company with a foreign subsidiary located in a given host country to serve markets in that country and possibly other countries should not be subject to current home country tax on foreign active business profits derived from that location. This argument has been accepted by most countries for many years, often from the outset when their international tax rules were first introduced.

Relevant to a tax burden assessment is the treatment of interest and other expenses incurred to earn foreign income. In one country example with a dividend credit system, interest allocation rules and other overhead expense (*e.g.* R&D) allocation rules apply which may be viewed as onerous compared with other countries. The interest allocation rules, which operate through the foreign tax credit system, limit the amount of overhead expense that can be set off against domestic source income (and thereby increase home country tax) for companies that are in an excess foreign tax credit position. The policy recognises the fungible nature of financial capital, and may be seen as striking a balance between base protection and providing competitive tax treatment. It also recognises that this approach may be seen as fair and neutral, with taxpayers encouraged to allocate business expenses met in earning domestic and foreign income across home and host countries without regard to differences across countries in statutory tax rates (as in the absence of such provisions, taxpayers are encouraged to assign interest and R&D expense to host countries with relatively high statutory corporate income tax rates, to maximise the value of tax deductions).

While other countries have tracing rules to limit deductions against domestic taxable income of interest expense on funds borrowed to finance foreign direct investment, some are of the view that in practice these rules may be easily avoided. This may be viewed as problematic where foreign profits of a resident parent company are exempt from domestic

tax [with a domestic interest deduction not matched by a domestic tax base inclusion of income from FDI financed in full or in part by funds borrowed by the parent (implying a subsidy for foreign investment)].

Beyond the basic international competitiveness argument

In countries operating dividend credit systems, policy considerations including on-going pressure by business have resulted in tax treatment that permits relief from home country tax that goes well beyond what could be explained by the basic or “old” notion of the international competitiveness argument. The pressure arises for the most part by comparisons with other countries, including countries operating exemption systems (where similarly, tax relief afforded to foreign source income can extend well beyond exempting from home country tax undistributed foreign active business income).

Application of the basic competitiveness argument becomes difficult in cases where a foreign host country does not tax corporate profit or sets a very low effective rate, as the basic argument rests on the presumption of business reasons alone (unrelated to profit tax considerations) for locating operations in the host country, with deferred tax treatment provided to place competing firms on an equal tax-footing. Where business activities of a foreign subsidiary or transactions with local parties in the host country are relatively minor, application of a competitiveness argument to cover profit on foreign transactions including export sales from a no/low-tax jurisdiction requires re-interpretation. The host-country business presumption must effectively be dropped, with a revised argument relying on the grounds that other competing firms are provided in their home country with deferred or exempt treatment of profit on foreign base sales from no/low-tax host countries.

Policy makers report arguments by business, pointing to global competition and policies adopted elsewhere, that they should be free to make use of no/low-tax jurisdictions for *all* types of activities. International competitiveness pressures are encouraging countries to provide deferral for foreign dividends, interest and royalties deductible at source received by a related controlled foreign company in a no-low-tax jurisdiction. While some countries have so far resisted extending deferral and enabling conversion of normally taxable foreign income into tax-free surplus for certain mobile forms of income, there are indications that policy considerations including the mobility of capital and business calls for more lenient home country treatment are leading many if not most countries towards more lenient treatment, not less, across a broader set of income types, because other countries are doing the same.

These developments, giving up home country tax revenues, while facilitating the erosion (“hollowing-out”) of host country corporate tax bases – by exempting interest, royalties and other amounts deductible at source – are inconsistent with equity and neutrality, but are viewed as being difficult to challenge given their acceptance by other governments, and fears over the mobility of capital.

Policy trends, constraints and options

Considering policy trends, a broad observation is growing pressure to provide an internationally competitive tax system. While neutrality and equity considerations may argue in favour of increased (not reduced) taxation of foreign source income, for example through introducing or tightening anti-deferral or anti-exemption rules, many countries

indicate that they generally are not in a position to move in this direction, given that other countries do not apply such rules, or apply less rigorous provisions.

Some officials face the concern that under current circumstances, including the general acceptance of low or no taxation, tightening-up CFC rules would cause more companies to seriously consider relocating *all* business activities to lower-tax countries without CFC rules, rather than shifting only certain activities offshore. One official explains that his country's CFC regime will be scaled back out of a concern that, if left unchanged, the CFC provisions would lead to a contraction of overseas business activities of its domestic companies, and reduced economic development.

Given constraints in applying rigorous CFC provisions, policy makers are encouraged to search for other means to stem domestic revenue losses. One area being examined in certain countries is the setting of the home country statutory corporate tax rate. A low tax rate benefits all corporations, while also reduces incentives to shift activities and tax base offshore. At the same time, given the relatively large tax revenue losses associated with each percentage point reduction in the basic statutory corporate tax rate, consideration may be given to reducing the effective corporate tax rate on specific mobile parts of the corporate tax base. One country is considering whether to give preferential tax treatment to interest and royalty income – as the future of CFC rules might be uncertain (given ECJ rulings). How policy will adjust depends largely on what other countries do.

Assessing the FDI response to tax reform and tax planning

The last chapter of the report considers the use of “forward-looking” effective tax rates to estimate the impact of corporate tax reform on FDI flows, and finds that standard forward-looking marginal effective tax rate (METR) and average effective tax rate (AETR) measures incorporate financing and repatriation assumptions that may be largely inconsistent with recent developments. These developments include the growing use of intermediary tax haven finance subsidiaries and new financial instruments that encourage reliance on inter-affiliate interest, royalty and other payments deductible at source as means to payout active business income.

Unlike dividends, deductible payments reduce the amount of host country corporate tax, and are particularly attractive where they attract no or minimal income tax. Such is the case where the recipient is an affiliate in a no/low tax jurisdiction, and the parent company is not subject to (or is able to avoid) controlled foreign company rules in the home country that would tax such income on a current basis. Even under a direct (non-intermediated) holding structure, home country tax may be avoided on inter-affiliate interest where hybrid securities rather than conventional debt are used.

The analysis includes a review of the basic partial equilibrium approach used by policy analysts to assess the FDI response to corporate tax reform, paying particular attention to financing and repatriation assumptions. The review considers, as an example, an application of the UK's APTAX model to estimate the response of inbound and outbound FDI to tax reform that lowers the statutory corporate income tax rate. The example is representative of the “state of the art” of AETR applications employed in OECD countries to assess tax policy effects on FDI flows.

This review is followed by a discussion of tax-planning considerations that to date have received little attention in AETR work, both in the context of direct (non-intermediated) investment and FDI involving triangular structures involving low-tax jurisdictions. Data are reported on the level and growth of earnings of controlled foreign companies in low-tax countries used by US parent companies, highlighting the scale of offshore financial intermediation and suggesting the need to account for this phenomenon when specifying financing parameters to arrive at representative tax burden measures.

The report presents results from an investigation of the implications of tax-planning on average and marginal effective tax rate measurement. The various tax-planning considerations addressed include: thin-capitalisation of high-taxed subsidiaries, “double-dip” financing (enabling interest deductions taken by both a parent company and a foreign subsidiary) and the use of hybrid securities in place of conventional debt, and the use of tax haven finance affiliates and hybrid entities to avoid home country corporate tax. Tax burden values are shown to be highly dependent on financing assumptions, with negligible AETR values and negative METR values under more aggressive forms of tax-planning.

The final section considers the sensitivity of effective tax rate results to financing assumptions, including holding structures. The finding that AETR/METR results depend on financing assumptions is not new. But what is striking is how different the values may be. Moreover, the percentage change in the AETR on FDI resulting from tax reform may be much different than what standard analysis would predict, implying the possible need to revise estimates of the FDI response to tax reform, at least in certain cases where tax planning is taken into account when making investment decisions. The analysis suggests that AETRs and METRs based on standard assumptions need to be reconsidered, calling into question econometric estimates of the tax elasticity (sensitivity) of FDI based on standard AETR or METR measures used as explanatory variables. The results also suggest that estimates of the inbound and outbound FDI response to tax policy reform based on standard measures may be less than reliable, not only on account of questionable tax elasticity estimates, but also because of considerable uncertainty over the percentage change in AETRs accompanying tax reform, taking into account tax planning considerations.

The finding that AETR values and estimated adjustments to those values following tax reform may be considerably different than what is predicted under a standard model (particularly when examining FDI from countries with dividend credit systems) suggests that more work should be done to investigate the implications of tax planning to forward-looking effective tax rate analysis used to infer tax reform effects on FDI. Such work could usefully draw on the insights of recent work by Grubert (2004) analysing the effects of tax-planning on backward-looking tax burden measures.