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" CORPORATE TAX INCENTIVES FOR FOREIGN DIRECT INVESTMENT "

Background Paper for Special Session III on FDI and the restructuring of transition and emerging economies *

prepared by

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OECD TAX POLICY STUDY NO. 3

***CORPORATE TAX INCENTIVES FOR FOREIGN DIRECT INVESTMENT*[1]**

EXECUTIVE SUMMARY

In many if not most countries, attracting foreign direct investment (FDI) is seen as an important policy goal, enabling productivity and national income gains. Thus policy makers are encouraged to ensure that their tax system is internationally competitive and that impediments to FDI are removed. An important part of the tax system that impacts most directly on multinational companies is the corporate income tax, and so much attention is focused upon this tax to ensure that the burden it imposes is not excessive.

At the same time, the corporate tax system plays an important withholding function, collecting tax revenues on income derived in the host country. The desire to tax this income, while not discouraging foreign investors, raises difficult questions concerning the appropriate design of various tax rules including tax incentive provisions that collectively determine the host country tax burden. A common concern in the area of targeted tax incentives is the scope provided for tax base erosion tied to unintended ‘leakage’ of tax relief to non-targeted business income.

This report reviews arguments in favour of corporate tax incentives for FDI, the various types of incentives that may be used, and their main channels of influence. The analysis looks beyond host country treatment and examines possible taxation of host country income by the home countries of foreign direct investors, recognising that interactions between host and home country tax systems can significantly alter FDI incentives. Central of course to the use of tax incentives is the basic question of how much incremental investment can be expected and at what aggregate cost to the host country, including not only administrative and direct revenue losses, but also costs tied to increased complexity in the tax system and vulnerability to excessive tax avoidance. Recent empirical findings are reviewed that find increasing sensitivity of FDI to host country tax burdens, consistent with trends towards increasing globalisation of production. Also reviewed are various techniques and empirical results confirming tax-planning efforts geared at shifting profits away from high-tax rate countries.

While summarising the basic approach to cost-benefit analysis of tax incentives, and stressing the need for careful consideration of likely effects, a cost-benefit assessment of alternative tax incentive mechanisms is

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[1] This study was prepared by W. Steven Clark of the Fiscal Affairs Secretariat, serving the Working Party on Tax Policy Analysis and Tax Statistics of the OECD Committee on Fiscal Affairs. The views presented are those of the author and should not be attributed to the OECD or to any of its Member countries.

not given, as effects would be expected to vary from one host country case to the next. Rather the report reflects on arguments for the use of corporate tax incentives and considerations relevant to their possible success, including results observed from recent empirical work and various design, implementation and tax base protection issues. This approach recognises that policy officials are often confronted with demands for the adoption of tax incentives for FDI without sufficient data to assess overall effects, and possibly little leverage to discourage their use even where roughly estimated costs exceed the likely benefits.

The Role of the Corporate Tax System and Tax Incentives

Tax systems may be used to achieve a variety of policy objectives. A review of tax systems across countries and over time shows a remarkable degree of diversity in approaches. Despite this, one can identify at a fundamental level three main roles or functions of tax systems. The most important role of a tax system is obviously its revenue-raising function to finance government expenditures in various areas. Second, tax systems have an important income redistribution function, particularly in the case of personal and also corporate-level income tax. Third, tax systems can play an important resource allocation function. According to the efficiency criterion, tax systems in general should be designed to be neutral, raising revenues while minimising distortions imposed on the economy. In the context of the taxation of income from capital, this generally requires that a taxpayer be subject to the same effective tax rate on different income streams. However, uniform taxation may lead to an inefficient allocation of resources. In such cases, differential tax treatment, introduced for example by the use of tax incentives, may be called upon to improve resource allocation.

An inefficiently low level of FDI may arise where there are positive externalities or beneficial effects from FDI that are not taken into account by foreign parent companies when making their outbound investment decisions. For example, where a parent company is determining the amount of R&D to conduct through a foreign subsidiary, the parent generally would not factor in the benefits from its R&D that 'spill-over' to the host country economy. In other words, the parent takes into account only the benefit to its profitability (the returns that it can appropriate) and not the social benefits that eventually freely disseminate, including the application of new knowledge, and production and process technologies by other host country firms. Similarly, FDI may confer general training and skills that could be employed elsewhere in the economy, or generate demand for various factors of production in the host country that might not otherwise exist. Where foreign direct investors do not take these social benefits into account, a private market result may yield FDI levels below what would be observed if the benefits were instead factored in. In these instances, it can be argued that tax incentives are necessary to correct for instances of 'market failure', and yield a more socially optimal allocation of capital.

However, while market failure and regional or international competitiveness arguments may apply that point towards intervention in the market through the tax system, it is critical that the host country investment conditions and characteristics be assessed in order to gauge whether possible impediments to investment could be overcome by the use of tax incentives. As stressed in the report, when tasked with addressing calls for the introduction of incentives for FDI, it is critical that policy makers ask:

What are the impediments inhibiting investment, and can they be addressed in a cost-efficient way through the use of tax incentives?

This is obviously a difficult question in many if not most instances, but it runs to the heart of the decision of whether or not to introduce special tax relief mechanisms. In cases where FDI activity is low, policy analysts need to address the impediments and question whether these should be tackled through the tax system, or through structural policy changes in other areas, or both.

The Need to Assess Possible Impediments to FDI

A number of possible market and policy related impediments to FDI are reviewed in the report. A key question in virtually all FDI cases is whether the required factors of production, including for example sufficient pools of adequately skilled labour, natural resources and energy supplies, can be acquired in the host country at a competitive cost. Project costs tied to taking output to market are another consideration. A related issue is the size of the market, and whether consumer demand in the region has been largely unfilled to date. The dimension and importance of these market characteristics would generally vary from one industry to another, implying the need for a range of data to help identify the relative advantages and disadvantages of investing in the host country. However, analysts should nevertheless attempt to assess the importance of these considerations, at least on an approximate basis and for broad industry classifications.

Government policies as they affect business costs and risks should also be assessed. Macro-instability in exchange rates and price levels tend to increase uncertainty and the perceived risks of FDI, tending to increase required pre-tax rates of return and discourage FDI flows. Investment will be inhibited if the host country legal and regulatory framework is incompatible with the operation of foreign-owned companies. Important areas include the protection of property rights, the ability to distribute profits and a open market for currency exchange. Case studies also stress the critical importance of political stability, particularly in the case of developing countries. Clearly, the risk of political instability can be the single largest deterrent to FDI, as it renders all areas of public policy uncertain.

Where tax policy is identified as a major issue, transparency in the tax law and administration will often be ranked by investors ahead of special tax relief. Uncertainty over tax consequences of FDI increases the

perception of risk and thus discourages capital flows, a fact particularly important for long-term, capital-intensive FDI that most host countries are eager to attract. Furthermore, frequent changes to tax laws should be avoided. While some fine-tuning is inevitable during a transition process and as policy evolves, frequent changes to the tax laws can contribute more than the provisions themselves to a perception that the tax system is complex and difficult to comply with. Administrative discretion is also an important issue. On the one hand, granting tax incentives by discretion with pre-approval of authorities may improve targeting, reduce the scope for tax avoidance and limit up-take and revenue costs. However, the approval process may be time-consuming and uneven, tending to undermine transparency and certainty in the application of the tax laws, and thus ultimately weakening the investment incentive effect.

Market and policy related impediments are factored in by foreign direct investors when determining the relative cost of investing in a given host country versus an alternative jurisdiction. Tax incentives may enhance the attractiveness of a potential host country, but in many cases the relief provided will be insufficient to offset additional costs incurred when investing there. In particular, where multinational firms are unable to generate profits from certain business activities conducted in a given jurisdiction, it is unlikely that tax incentives would have a notable impact on FDI levels. This would tend to be the case for goods and services produced under competitive conditions, with output prices set in international markets, where product demand (both in and outside the host country) can be met by locating production in an alternative site with access to factor supplies and markets at lower cost. Clearly, a reduced effective tax rate on profits is attractive only where pre-tax profits can be realised. As argued in the report, providing non-profitable (loss) companies that are non-taxable (and therefore unable to use special tax deductions, allowances and tax credits) with up-front cash refunds on earned but unused tax incentives tends only to attract aggressive tax-planning to access the subsidies from government, rather than *bona fide* investment in the targeted sectors. Moreover, project self-sufficiency rarely materialises where investment projects are not profitable on a pre-tax basis. Where incentives cannot be expected to compensate for additional costs and business losses incurred when investing in a potential host country, then their use and the net burden imposed on the host country should be avoided. In particular, in general it would be best to avoid the administration and compliance costs and tax revenue losses from the inevitable 'leakage' of tax incentive relief to one or more non-targeted business activities.

Where a firm is able to generate profits from operating in a given host jurisdiction, tax incentives may be successful in attracting additional FDI, and may be viewed as necessary where similar relief is being offered by a neighbouring jurisdiction also competing for foreign capital. This raises questions concerning the appropriate form and scale of tax incentive relief, as well as a range of other design issues. It also raises the question of whether foreign direct investors could earn competitive 'hurdle' rates of return in a

given host country and in competing jurisdictions in the region in the absence of special tax incentives. In such cases, policy makers may wish to discuss the possibility of policy co-ordination in the area of tax incentives to avoid revenue losses and providing foreign investors with 'windfall gains' – that is, tax relief above that necessary to realise competitive after-corporate tax rates of return – and also to address possible equity and efficiency concerns linked with the use of special tax incentives.

Where additional FDI resulting from tax relief can be expected, it remains prudent to assess whether the stream of benefits from increased FDI, including host country taxes collected on profits from an increased capital stock and possible spill-over effects, can offset the stream of costs associated with the tax incentive provisions. In other words, policy makers should be encouraged to undertake an analysis of the social benefits and costs of tax incentive use, with the same rigour that foreign investors assess the relative private benefits and costs of investing in the host country.

Possible Corporate Tax Incentives to Encourage FDI

Host countries may provide relief from tax on income generated at the corporate level in a number of ways. Alternative corporate tax incentive measures include tax holidays, statutory corporate income tax rate reductions, enriched capital cost allowances, investment tax credits, reductions in dividend withholding tax rates, and the extension of imputation relief to non-resident shareholders. The report presents a simple framework to address the means by which each can operate to lower the effective hurdle rate of return on FDI, while subsequent chapters review differences in their impacts on the real and financial behavior of firms and on the host country economy and fiscal position, as indicated by a mix of theoretical, empirical and case study analysis.

In brief, a tax holiday exempts 'newly-established' firms from corporate income tax, and possibly other taxes, for a specified number of years. A reduction in the statutory or 'headline' corporate income tax rate reduces the amount of host country tax levied on taxable profits. Enriched capital cost allowances including accelerated and enhanced write-offs for qualifying capital costs, lower the calculation of taxable profits. General or targeted investment tax credits earned at a given rate on qualifying investment provide a direct reduction in corporate tax otherwise payable, where the value of the incentive is independent of the setting of the statutory corporate tax rate. Dividend withholding tax rate reductions and imputation relief provide an offset to corporate tax on distributed profit, which may operate to lower the discount rate applied by investors to after-tax cash flows from FDI.

Standard investment theory predicts that investment expenditures would generally respond positively to each of these tax incentives. A reduction in the statutory tax rate applied to corporate profits, or a

temporary waiving of this tax as under a tax holiday, generally would be expected to boost investment by increasing the amount of after-tax profit earned on new investment as well that earned on the existing capital stock. Theory predicts that 'up-front' incentives, including investment tax credits and immediate expensing of capital costs earned as a percentage of new investment expenditures would yield a larger investment response for each currency unit of tax revenue foregone. Unlike a corporate tax rate reduction, investment tax credits and other subsidies to the cost of purchasing capital benefit only new investment. Therefore, they provide a larger reduction in the effective tax rate on investment at a lower cost, taking into account the impact of taxation on both marginal revenues and costs. A reduction in the statutory corporate tax rate, in contrast, benefits both 'new' as well as 'old' (previously installed) capital. Financing incentives may also operate to encourage host country investment, provided that they are offered to the 'marginal investor' establishing required hurdle rates of return.

Theory also predicts that the potential impact of tax incentives would vary across sectors and over time. The potential impact on FDI would be expected to be greater for business activities for which there is little differential in non-tax business costs (including labour, material, energy and other factor input costs and transportation costs) amongst competing jurisdictions. This follows from an observation that a narrowing of non-tax business costs tends to make tax differentials a more important consideration in locational choice. As an example, tax incentives would be expected to have a significant effect on the location choice for financial services activities, given that advances in data management and telecommunications have largely eliminated non-tax cost differentials across alternative business locations.

These considerations offer a first round summary of the potential effects of host country tax incentives. However, they are subject to a number of important qualifications. An important caveat to note is that a full assessment of the likely effects of host country tax incentives requires consideration of the treatment of foreign source income in the home country of foreign direct investors. Addressing tax-interaction effects is important as tax consequences in the home country can reduce the impact of a given host country incentive. Indeed, often the tax rules of several countries will factor into the relevant investment structure, for example where funds come via an offshore financing or holding company.

Recent Empirical Findings on Host Country and Tax Interaction Effects

Countries generally follow one of two approaches in their treatment of active business income earned on foreign direct investment. Under the 'territorial' approach, foreign source income is generally tax-exempt. Therefore, in determining the overall level of corporate tax imposed on income derived from FDI, one need not consider home country taxation. In other words, for investors resident in exemption countries, only

host country taxation matters. The same is true where home countries instead follow the residence-based approach, as do the U.S., U.K. and Japan, but generally only in situations where residents are able to avoid home country tax on foreign source income through the use of foreign tax credits, tax havens or other tax-sheltering means. However, where investors are subject to tax on their foreign source income, a tax incentive for FDI that lowers host country tax may be completely offset by a reduction in the home country foreign tax credit. This implies that tax incentives may have no impact on the total (combined host and home country tax) tax imposed on income generated in a host country, and thus may have no impact on FDI activity. The only effect is a transfer of tax revenues from the host country treasury to the home country treasury.

Assessing the net benefit to a host country of introducing a given tax incentive clearly depends critically on the additional amount of FDI undertaken as a result of the tax relief. Where an incentive is introduced and investors take advantage of the tax relief, a certain amount of FDI activity will be observed and associated with the tax incentive program. But that activity may have occurred in any event, in which case the tax relief provides an unnecessary 'windfall gain' to investors. Much thought and empirical analysis has addressed the question of the relationship between the level of investment flows and the effective rate of corporate taxation. However, isolating the impact of host country taxation on investment flows at the margin has proven to be a difficult exercise, even in the pure domestic context. Moreover, the ever-increasing globalisation of trade and investment patterns has encouraged analysts to consider the complex interaction of host and home country tax systems and tax treaty networks to better understand the overall influence of taxation on inbound and outbound investment flows. It is within this broader framework that the question of how tax incentives ultimately impact on FDI should be addressed.

While answers to these questions have by no means been fully sorted out, important developments in the understanding of the main factors and their inter-dependencies have been achieved, and some real progress has been made over the last decade in empirical testing of investment models. The report reviews empirical findings on the impact of taxation on cross-border direct investment in real physical and intangible capital. After reviewing findings in the literature up to 1990, the paper considers more recent work including results derived using data on direct investment abroad and empirical analyses of host and home country tax considerations thought to influence the decisions of U.S. multinationals concerning the location of foreign R&D activities.

Recent empirical work using improved data on FDI and sophisticated estimation techniques would appear to offer convincing evidence that host country taxation does indeed influence investment flows. An important implication of the recent work is that host country taxation is an increasingly important factor in

locational decisions, which is not surprising given the gradual pervasive reductions over time in non-tax barriers to FDI flows, including the abolition of investment and currency controls and the globalisation of production. However, due to a number of persistent limitations ranging from data measurement problems to restrictive modelling assumptions, the estimates presented in the report of the responsiveness of FDI to changes in the after-tax rate of return on FDI (and through this channel, to changes in the level of tax incentives for FDI) must be used with caution when applied to measure the cost-effectiveness of a given tax incentive measure.

Some observations are offered on on-going limitations posed by empirical modeling and implications for gauging tax incentive effects. One of the most notable issues is the fact that most of the empirical work in this area is based on U.S. data. Therefore, findings on the sensitivity of direct investment into the U.S. (inbound FDI) to tax considerations may not be taken to apply equally to other host countries. Similarly, findings on the importance of host country tax considerations to U.S. parent companies investing abroad (outbound direct investment) cannot be taken to apply equally to outbound investment decisions of corporate direct investors resident in other home countries. However, the findings of increased sensitivity of foreign direct investors to host country tax burdens, linked to increased globalization, are likely to apply in other cases, perhaps not to the same degree but in the same direction. In particular, multinational corporations based in other home countries, also operating on a global basis with fewer investment and trade restrictions, could be expected to be more sensitive over time to host country tax burdens if home country taxation is not a pressing factor. This would include multinationals resident in countries that exempt foreign active business income from tax, as well as those in countries which tax foreign source income but allow deferral of home country tax on host country profit for an extended period, for example through the use of offshore holding companies. However, as noted above, the elasticity estimates reported in the literature must be used with care. Despite progress in empirical investigations, estimates of the FDI response to a given amount of tax relief arguably cannot be made with a high degree of certainty, given that a number of theoretical and empirical issues remain unresolved. In other words, the empirical results to date are suggestive, but more work needs to be done to improve and verify the accuracy of elasticity estimates in alternative host and home country cases.

While indicating that the sensitivity of FDI to host country tax burdens appears to be increasing over time, the empirical applications of investment models unfortunately offer few clues over how host country tax burdens might be lowered to attract additional FDI. The reason is that the explanatory variables used (summary marginal and average effective corporate tax rates) are measured as an amalgam of relevant tax and non-tax parameters. By aggregating relevant factors, the individual influence played by each is masked. Thus policy makers must look to other areas to guide their choice over alternative tax instruments

or policies to encourage FDI. The report therefore reviews a number of policy considerations and design issues relevant to the choice of alternative tax incentive measures. As noted above, the exercise should begin with policy makers assessing their own country situation and the strength of arguments calling for tax incentives for FDI to correct for market failure or other market or policy-related impediments to FDI. Often a preferable route will be to address non-tax policy-related impediments to FDI prior to, or at a minimum, parallel with, the introduction of tax incentives.

A Summary of Design Considerations

The report addresses design considerations linked to unintended tax planning incentives created by certain tax relief measures, most notably tax holidays. The need to anticipate, design and implement protective measures to stem aggressive tax-planning is a central issue for policy makers to address, given that instruments often fail to promote FDI in a cost-efficient manner largely on account of unintended leakage of tax relief to non-targeted activities. The discussion highlights tax base protection advantages of adopting a low basic statutory corporate tax rate as a means to attract FDI, despite the tax relief that this approach offers to existing (installed) capital. Other design issues addressed include commencement dates for tax holidays, the tax treatment of losses and depreciation claims, the use of incremental versus flat tax credits, and the targeting of financing incentives to marginal versus infra-marginal investors and implied FDI effects.

Tax holidays remain a popular form of tax incentive, primarily in developing countries, and therefore the report reviews a number of design considerations. The report illustrates for example that the choice over several options for the commencement of a tax holiday – including the first year of production, the first year of (positive) profit, or the first year of (positive) net cumulative profit – can have a significant bearing on the amount of direct tax relief provided and the attractiveness of this measure to investors. The amount of direct tax relief provided is shown to depend not only on the starting period of the tax holiday, but also on the scale and tax treatment of losses incurred over the holiday period. The report provides a number of examples that illustrate the relative attractiveness of alternative tax rules.

While perhaps the most tried and tested tax incentive, the tax holiday is arguably the most open to taxpayer abuse. By exempting certain companies or activities from income tax, tax holidays encourage corporate groups to shift taxable income (either within or outside the letter of the law) to qualifying companies so as to minimise their overall host country tax liability. A number of avenues may be open for such abuse. First, where a tax holiday is targeted at ‘newly established’ companies, taxpayers are encouraged to transfer capital from already existing businesses to qualifying firms in order to benefit from the tax relief.

This 'churning' of business capital for tax purposes can lead to the false impression that new investment has taken place, when in fact the introduction of 'new' productive capacity merely reflects a reduction in operating capital elsewhere in the economy. Another common technique for profit shifting facilitated by tax holidays is routing interest and other deductible payments within a corporate group through tax-free entities, enabling the conversion of deductible interest expense into dividends received tax-free in the hands of the parent. A third technique is to use artificial transfer prices in transactions amongst firms in a corporate group to shift otherwise taxable income to the tax holiday firm, and to shift expense to non-qualifying firms to reduce the global amount of income subject to tax.

When considering enriched deprecation claims as a tax incentive option, a key consideration, in addition to the choice between a straight-line versus declining-balance depreciation method, is whether to allow the claims to be discretionary or not. For example, if policy makers hope to encourage FDI by providing accelerated depreciation, should the depreciation claims be mandatory (allowed only in the year when the claim first becomes available), or should one allow taxpayer discretion to carry the claim forward? Many countries allow unclaimed depreciation expenses to be carried forward indefinitely, which improves the ability of investors to manage tax claims and minimise their overall host country tax liability. Where taxpayers are given fewer degrees of freedom, the linkage with loss carry-over provisions becomes more important. Examples are provided which show the possible pitfalls of introducing accelerated depreciation with mandatory (non-discretionary) claims and no loss carry-forward. Accelerated depreciation is shown in this case to worsen the taxpayer's situation, yielding a higher overall tax burden, than that observed with non-accelerated depreciation. Providing discretionary accelerated depreciation is shown to enhance the investor's position, while offering discretionary accelerated depreciation plus loss carry-forward provisions (allowing the investor to carry forward both tax losses as well as business losses) lowers the tax burden further.

The report finds considerable support for choosing to lower the basic statutory corporate income tax rate as a means of lowering the effective host country tax rate. There now exists a considerable body of empirical work summarized in the report that addresses the implications of alternative tax reform measures on financial policies of multinational corporations. This work demonstrates that a firm's financial structure is typically influenced, in some cases significantly, by the tax regime of the host country, corroborating well-know results to tax-planning advisers. Empirical results at the aggregate level tend to confirm the central role played by the host country statutory corporate income tax rate in influencing chosen debt/equity ratios. In particular, a high statutory corporate income tax rate encourages borrowing in the host country, tending to erode the corporate tax base.

The review also examines the implications of alternative tax parameter settings on earnings repatriation policy decisions. As theory suggests, repatriation methods are found to be influenced by statutory corporate and non-resident withholding tax rates, with alternative forms of earnings repatriation having differential impacts on the host country tax base. High withholding tax rates on dividends, for example, tend to discourage dividend distributions. However, a high dividend withholding tax policy cannot ensure that (true economic) profit will be reinvested in the host country as firms have other means at their disposal to remit earnings to parent companies including the use of deductible charges such as interest, royalties and management fees. As expected, high corporate income tax rates are found to encourage the use of deductible payments including interest as a means to remit income to foreign parents, with negative implications for the host country tax base. Interestingly, one study finds that (deductible) royalty payments are not found to increase with the host country statutory corporate income tax rate. Instead, low statutory tax rate regimes tend to be associated with higher royalty and dividend payments, suggesting that multinationals tend to shift profits, including income from intangible capital, to low tax rate jurisdictions. The effects for high corporate tax rate countries are the opposite, with multinationals tending to shift profit out, rather than in, using highly leveraged financial structures in the host country and non-arm's length transfer pricing.

The findings suggest that up-front incentives that subsidise the cost of acquiring new capital, which basic economic theory would suggest generally to be the most efficient incentive instruments, may not be the best choice in practice, given the inter-dependency of tax parameter settings (e.g., as under an overall tax revenue raising constraint). In particular, to the extent that revenue losses from the provision of generous investment tax credits and other 'up-front' incentives are accompanied or 'financed' by a high statutory corporate income tax rate, corporate tax planning by investors to shift tax deductions to (and taxable profits away from) high statutory tax rate jurisdictions may largely undermine the efficiency of the up-front incentive type. Case study analysis and recent empirical findings on the sensitivity of financing decisions, repatriation policies and transfer pricing behaviour offer important lessons in this regard.

Up-front tax incentives, including investment tax credits and immediate and full expensing of capital costs, as noted above are often advocated as the most efficient form of investment incentive in that they reward only new capital purchases. The reasoning is that tax incentives can yield the greatest efficiencies if they subsidise only investment that would not have occurred in the absence of the support. On this basis, it is often argued that up-front incentives tied to new capital purchases should be chosen as the mechanism to encourage new investment, over statutory corporate income tax rate reductions that benefit existing as well as newly installed capital. Despite this claim, it is important to recognise that targeting relief to newly acquired capital (as investment tax credits, immediate expensing and other up-front tax incentives do),

does not ensure that windfall gains to investors are avoided. This is because some (unknown) fraction of new investment that qualifies under a given tax incentive program would have occurred in any event.

Recognising this, efficiency gains could be achieved in principle by sharpening the definition of qualifying investment to more narrowly target incremental investment. One example of an instrument tailored along these lines is the so-called *incremental investment tax credit*. Unlike a flat credit earned as a fixed fraction of current period investment in qualifying capital property, an incremental investment tax credit is earned as a fraction of only that part of current period investment that is in excess of some moving average of past investment. Designing a tax incentive in this way may result in better targeting and improved efficiency compared with alternatives. However, as illustrated by examples in the report, the design feature may operate in certain cases to discourage investments by firms whose desired level of investment expenditure (in the absence of a tax credit) in a given year is less than its average expenditure over the previous base years. Restricting the provision of tax credits to investment expenditures in excess of a moving-average base can also create an incentive for businesses to make investments in a staggered, lumpy manner rather than over a smooth expenditure pattern.

An important general issue addressed in the report considers the fact that enhanced depreciation allowances combined with flexible loss carryover rules can lead to a significant build-up of unutilised 'tax-losses', that is earned but unused tax offsets that can be carried forward by the taxpayer to offset tax in future years. Similarly, those that are discouraging of the granting of up-front tax incentives point out that their introduction can put enormous strain on the host country tax system given that governments are typically pressured to allow firms in a temporary loss position (e.g., start-up firms) to carry forward balances of earned but unused investment tax credits. To deny this would place them at a competitive disadvantage relative to profitable firms able to take advantage of special tax expenditures. However, tax losses, or more generally outstanding balances of unused tax deductions and credits created by generous investment incentive programs, can protect targeted firms from paying tax for a prolonged period after they become profitable. Moreover, the existence of large balances of unused tax-losses creates incentives for firms in a loss position to 'sell' tax losses to firms outside the target tax incentive group that are profitable and able to use transferred losses to reduce their host country tax liability. This in turn puts pressure on host governments to ensure that rules and administrative practices are in place to limit unwanted loss trading, typically with new tax loopholes created as old ones get shut down. The revenue costs resulting from loss transfers can be huge and dwarf foregone revenues from the targeted investment activities.

An alternative to tax credit carryover provisions is to allow for tax credit 'refundability'. Where a credit is refundable, taxpayers are provided with immediate cash relief for that portion of the credit that cannot be

used to offset income tax liability in the year the credit is earned. Refundability can offer an immediate boost to a firm's cash-flow and address possible liquidity constraints inhibiting investment plans. However, from the government's perspective, great care should be exercised when pressures mount for the introduction of refundable tax credit provisions. Refundability can increase the cost of an investment tax credit program first by shifting forward tax expenditures that would be delayed under tax credit carryover provisions. In addition, refundability extends support to a subset of non-taxpaying firms (e.g., start-ups), that will eventually fail and never be profitable and taxable. Tax credit carryover provisions, in contrast, limit program costs by extending assistance only to profitable firms. By virtue of the fact that a firm must be profitable for it to be subject to income tax (and only then able to claim a tax credit), the carryover design feature has an inherent selection device. In practice, carryover relief may extend beyond the target group, for example where unused credits are 'sold' to non-qualifying firms as noted above. At the same time, with relief from excess credits limited to a carryover, immediate financing relief may be denied in certain cases to firms that are currently in a loss position but potentially profitable.

While not perfect, the overall results with assistance limited to a carryover of tax relief may however be more efficient than those that might occur with a loosely targeted refundable tax credit. A key risk with the latter is that the prospect of generous refundable tax credits will encourage the creation of 'sham' business activities set up primarily or solely for the purpose of receiving a refund cheque from the government. Refundability tends to increase the incentive to recharacterise non-targeted activities as qualifying ones, putting additional pressure on tax administration and testing further the limits of the qualification criteria. For example, tax-planners might explore 'holes' in the tax legislation and regulations to determine whether capital assets could be purchased, with the pretence of undertaking a *bona fide* qualifying activity, and then resold to the capital supplier or to a third party, with a tax credit refund in hand then split amongst the interested parties.

The remaining design issues considered in the report focus on financing incentives. Assessing the impact of financing incentives including withholding tax rate reductions and the extension of imputation relief to non-residents involves considering alternative sources of finance (debt, retained earnings, new share issues) and various margins across which foreign direct investors would be expected to compare after-tax rates of return when ranking their investment opportunities. Where taxes on profit remittances bear significantly on net project returns and profit margins, foreign direct investors might be expected to factor in host and home-country corporate-level tax treatment, including taxes on profit repatriations, when making investment decisions. If dividend repatriation taxes are taken into account and capitalised into share prices, relief from dividend taxes can be expected to lower the cost of raising new equity funds and thereby encourage FDI.

Where a foreign parent is able to avoid home country tax on foreign dividends (using excess foreign tax credits, income mixing, or offshore holding companies) an increase in the rate of imputation relief provided to foreign direct shareholders can have the effect of lowering the cost of new equity capital supplied to the subsidiary. Similarly, a reduction in the rate of non-resident dividend withholding tax would be expected to lower the firm's discount rate. Both financing incentives would tend to encourage FDI, as a lower profit discount rate implies the ability to cover the shareholder's required rate of return at an increased capital stock.

However, where instead the foreign parent is subject to additional home country tax on foreign income, generally neither imputation relief nor withholding tax relief would be expected to influence the host country firm's required rate of return on investment. This occurs because the 'all-in' tax rate on the subsidiary's profit is the *home* country tax rate, with host country tax incentives fully offset by reduced home country foreign tax credits. Moreover, since the financing incentive is conditional upon and occurs simultaneously with dividend repatriation, the possibility of deferring home country tax does not alter the result. Thus, the financing incentive in this case shifts revenues between host and home countries, with no influence on overall final after-tax returns, and thus no expected impact on the host country capital stock.

Another case addressed is where a foreign direct investor considers a non-controlling interest in a host country investment project – for example, ownership of less 50 per cent of the equity interest.. One possibility is that the marginal shareholder supplying the last units of capital to a host country investment project is a tax-exempt entity. Alternatively, domestic taxable investors may be the marginal shareholders of a host country firm. Neither imputation tax credits nor non-resident withholding tax relevant to distributions to a foreign direct investor would factor into the calculation of the firm's required rate of return in either case, as neither apply to distributions to the marginal shareholder. Thus, financing incentives offered to foreign direct investors would not be expected to influence the level of the host country capital stock in these cases. A final issue explored in the report is the potential of these incentives to influence *infra-marginal* financing by foreign direct investors, potentially of interest where direct but non-controlling participation by foreign investors is expected to bring benefits to the host country including for example access to goods or factor markets.

The Need for Careful Use and Design of Tax Incentives

The analysis in the report, which touches on a number of considerations tied to the use of tax incentives, indicates perhaps above all that there are a variety of difficult issues for policy makers to contend with. Identifying impediments to FDI and assessing whether these can be offset by tax incentives raises difficult

data availability and in some cases conceptual problems. However, policy analysts need to tackle these questions, at least on an approximate basis for business activities subject to the tax measure.

Assessing the likely investment response is made difficult by the paucity of information on the elasticity or responsiveness of FDI with respect to host country effective corporate tax rates. It would be prudent to use lower bound estimates in cases where host country impediments to FDI are more pronounced than in host countries from which sample estimates are derived. These lower bound estimates translate to conservative estimates of additional tax base and other spillover benefits to the host country economy. At the same time, policy makers should not underestimate tax-planning initiatives of multinationals and should assess the strength of domestic base protection provisions, particularly if a tax holiday is being considered.

Additionally, the choice over alternative tax incentives will depend on the specific country circumstances. For example, the findings in the report call for caution in the use of up-front tax incentives, particularly if the basic statutory tax rate is relatively high and if refund provisions are offered. Some would judge the balance in favour of lowering the basic tax rate, which not only spurs investment (despite dampening effects working through the cost of debt finance and the valuation of depreciation allowances), but also alleviates tax-planning pressure on the domestic tax base, largely by rewarding the productive use of inputs in generating profit, rather than subsidising the purchase of inputs.

However, as with other tax incentives, the case will depend on the country case. Where current corporate tax revenues are derived largely from capital that would benefit from a rate reduction, the revenue loss on existing capital may be viewed as too large. In other words, the policy decision may depend on the amount of existing versus new tax base that benefits from the rate reduction. A weighing of the host country resident's views on a 'fair' sharing of the tax burden between households and firms may also factor in.

As the example illustrates, the choice over the appropriate tax incentive or mix of tax incentives, and the basic decision over whether tax incentives should be used to bolster FDI, will depend on individual country circumstances and perspectives. The report offers a range of information that may be useful to policy makers in shaping policy decisions in the area of tax incentives for FDI.