



POLICY FRAMEWORK FOR INVESTMENT USER'S TOOLKIT

Chapter 5. Tax Policy

Introductory note

The Policy Framework for Investment (PFI) User's Toolkit project responds to a need for specific and practical implementation guidance building on the experience of the countries that have already piloted or are planning to pilot the PFI.

The Toolkit was developed with the involvement of government users, in co-operation with other organisations, OECD committees with specialised expertise in the policy areas covered by the PFI and interested stakeholders.

This document is a revised draft of the guidance relating to Chapter 5 of the PFI on Tax Policy. Underlined text in this document represents links which will be activated in the final web version.

The PFI User's Toolkit is purposely structured in a way that is amenable to producing a web-based publication. A web-based format: is a flexible approach for providing updates and additions; allows PFI users to download only the guidance relevant to the specific PFI application they are implementing; includes a portal offering users more detailed resources and guidance on each PFI question. The website is accessible at www.oecd.org/investment/pfitoolkit.



Tax Policy

A country's tax regime is a key policy instrument that may negatively or positively influence investment. Tax Policy in the PFI relates to the formulation of a tax strategy which is supportive to investment. It covers the advantages and disadvantages of alternative tax policy choices in meeting the twin goals of offering a tax system attractive to investment, while at the same time raising revenues to support the key pillars of a business-enabling environment, such as infrastructure. A poorly designed tax system, where the rules and their application are non-transparent, overly complex or unpredictable, may discourage investment adding to project costs and uncertainty. Systems that leave excessive administrative discretion in the hands of tax officials tend to invite corruption and undermine good governance objectives fundamental to securing an attractive investment environment. Policy makers are therefore encouraged to ensure that their tax system imposes an acceptable tax burden that can be accurately determined, and which keeps tax compliance and tax administration costs in check.

This chapter seeks to assist countries in understanding the bottlenecks within their current tax system and to propose changes to improve the efficiency of the system in terms of its ability to mobilise revenue on the one hand and attract the right kind of investment on the other. It identifies the nine most important questions relevant for judging the effectiveness of a country's tax policies and practices and offers specific guidance in formulating a tax policy strategy which is supportive to investment. The nine PFI questions on tax policy relate to:

- the consistency of a country's tax burden with its broader development objectives;
- an evaluation of the actual tax burden on domestic profits;
- a comparison of the actual versus the target tax burden;
- understanding the potential tax effects on investment;
- an evaluation of tax distortions to investment;
- the determination of taxable income;
- accounting for unintended tax incentive effects;
- tax expenditure reporting;
- international tax co-operation.

Consistency of tax burden with broader development objectives

5.1. *Has the government evaluated the level of tax burden that would be consistent with its broader development objectives and its investment attraction strategy? Is this level consistent with the actual tax burden?*

Rationale for the question

Behind this question lies a central trade-off facing policy makers – by reducing taxes on host country investment and subsidising investors, revenues are forgone that could be used to build infrastructure, improve labour skills, strengthen governance and address other elements of the business environment that in many country contexts are the real impediments to investment. Given the country's overall fiscal policy position and objectives, policy makers should consider whether the actual tax burden imposed on the economy is appropriate, or whether it should be adjusted in order to attract additional investment, discourage capital flight and swing location decisions in the country's favour.

Key considerations

Most would agree that a host country tax burden that is very high relative to other countries generally discourages investment and could, in certain cases, be a deciding factor for not investing or reinvesting in a particular host country. A more difficult issue is *when*, under which circumstances, can a relatively low host country tax burden (e.g. reduced statutory tax rates or tax incentives) be expected to attract additional investment?

Investors are generally willing to accept a higher host country tax burden if the country offers attractive business-enabling and market conditions, a stable framework, and above all, host country location-specific profit opportunities. Indeed, in principle, the tax burden on location-specific profit could be increased up to the point where economic profit is exhausted without discouraging investment. Thus, where an economy offers an abundance of location-specific profit opportunities, policy makers may understandably resist pressures to adopt a relatively low tax burden, to avoid tax revenue losses.

In the context of economic profit that is *not* location-specific, comparisons of tax burdens in competing locations would be expected to be factored in. If a given business activity can be carried out in a competing location with a lower rate than that in the host country, then, in theory, investors would be unwilling to bear a tax burden in the host country above that rate. On the other hand, if the competing low-burden location does not offer an attractive business infrastructure and stable

macroeconomic environment, investors may be willing to pay a higher tax burden in the host country without being tempted to invest elsewhere.

Where the investment conditions in a given location are on balance more attractive than those elsewhere, the question arises as to how much higher the tax burden may be set without significantly impacting investment. And if investment is expected to decline, at what rate and in what sectors?

Policy practices to scrutinise

A central challenge for policy makers aiming to encourage domestic and foreign direct investment is carefully weighing the relative advantages and disadvantages of alternative tax policy choices that would be attractive to investment. Global experience and analysis show that tax incentives are one of many, and sometimes not the most important, factors of potential investment. Critically important to potential investors are questions over costs and risks associated with macroeconomic and enabling-environment conditions; access to capital; cost of compliance with laws, regulations and administrative practices; and securing location-specific profit opportunities. Therefore, the following criteria must be carefully considered in setting or evaluating the level of a country's tax burden.

Framework conditions

Political and monetary stability: Investors require stability for planning purposes. How stable is the political system? How stable are the monetary system and fiscal framework and what is the accumulated public debt? What are expectations over future inflation, interest and exchange rates?

State of infrastructure: What is the state of the host country's infrastructure covering transport (airports, seaports, rail systems, roads), telecommunications (phone/Internet services) and other services important to business? Are private costs of using/purchasing infrastructure services high relative to competing jurisdictions?

Simplicity and cost of compliance: The tax system should display a high degree of transparency and clarity. How significant are the costs and risks to business associated with the complexity of all tax codes and their accompanying rules, regulations and procedures? In what areas is public governance weak and where is corruption a problem? Is the cost of tax administration compliance relatively low?

Tax system stability. Although revisions in the code to accommodate both changing economic circumstances and

taxpayer practices are to be expected, the main body of the tax law should remain relatively stable over time. Is the tax system stable or prone to revisions? Does the tax system avoid fluctuations due to an over-dependence on too few types of taxes? At the same time, is the total number of taxes limited to avoid complications and burdens on taxpayers that might otherwise occur?

Market characteristics

Considerations of market demand and supply are also centrally important to investors, including:

Market size: What is the size of the domestic market? How large is the domestic consumer market (number of households, average level and distribution of per capita income)? How large is the domestic producer market (number of firms, asset size, input requirements)? How large and accessible are markets in other (e.g. neighbouring) countries?

Labour market conditions: What labour force skills are available in the host country and what employee benefits (e.g. social security) are provided by the state? Are labour costs (wages plus mandatory employer social security contributions) high relative to competing jurisdictions?

Prevalence of location-specific profits

For many, if not most, investments, the levels of profit and risk associated with undertaking a given business activity may vary significantly across alternative locations and may, in certain cases, be “location specific” – that is, may require a physical presence in a particular location. Location-specific activities include privatisations, the extraction of natural resources and the provision of restaurant and hotel services. In such cases, if profits can be expected at levels of risk that investors are willing to assume, the profits are location-specific – that is, they cannot be realised by locating in another country or jurisdiction. A central question for investors is how location-specific are the potential profits and risk of a given host country? Is the tax burden of a host country highly relevant to an investment decision? How much higher may the tax burden be set without significantly impacting investment? If investment is expected to decline, which sectors will be the most affected?

Resources for further study

For further reading on optimal taxation and how to minimise the excess burden of taxation, see:

- Matthews, S. (2011), “What is a Competitive Tax System?”, *OECD Taxation Working Papers*, No. 2, OECD Publishing.
- Brys, B. (2011), “Making Fundamental Tax Reform Happen”, *OECD Taxation Working Papers*, No. 3, OECD Publishing.
- OECD (2008), “Tax Effects on Foreign Direct Investment”, *Policy Brief*, February, OECD Publishing.
- Auerbach, Alan J. (1985), “The Theory of Excess Burden and Optimal Taxation”, in: Alan J. Auerbach and Martin Feldstein (eds.), *Handbook of Public Economics*, Vol. 1, North-Holland, Amsterdam, pp. 61-127.

Evaluation of the actual tax burden on domestic profits

5.2. What is the average current tax burden on domestic profits, taking into account statutory provisions, tax-planning opportunities and compliance costs?

Rationale for the question

Policy makers should regularly assess the tax burden on profits to determine if the tax system is supportive of investment without forgoing tax revenue that could be used to fund public expenditure on infrastructure or other areas of critical importance to investors. The main statutory provisions as well as the effects of tax-planning strategies increasingly used by businesses to lower the tax burden (e.g. transfer pricing, thin capitalisation) should be taken into account. Compliance costs from excessive complexity, non-transparency and unpredictability should also be factored in. If the tax burden on business income is judged to be inappropriate, either too high in order to attract investment or too low in relation to the country's revenue needs, consideration should be given to adjusting the parameters of the statutory tax burden.

Key considerations

Policy analysts have various measures available to assess the tax burden on business profit and the tax disincentive for investment.

- **Statutory tax rates** are the most visible and often-cited measure of the tax burden. These rates are relevant because they have an important signal function to investors and are commonly used in cross-country comparisons as an important factor in the decision-making process for new investment.
- **Backward-looking indicators, using historical data.** Two backward-looking indicators are commonly used, the corporate tax-to-GDP ratio and the average tax rate.
 - a. *Tax-to-GDP ratio* measures the actual corporate tax revenues in relation to gross domestic product and is the main aggregate indicator used by policy analysts.
 - b. *Average tax rate* measures the ratio of business tax revenue to corporate profit and is usually calculated based on micro-level firm-specific data.¹ The use of micro-data allows for a measure of the tax

1. The average tax rate could be calculated using aggregate data; however, when assessed on the aggregate level, the indicator poses certain measurement and interpretation issues, such as, for example, a mismatch of numerator and denominator in relation to the treatment of business losses and foreign income.

burden on the economy-wide level as well as disaggregated by firm size, sector, location or ownership structure.

- **Forward-looking effective tax rate indicators.** The tax burden on business income may be assessed using forward-looking, parameter-based indicators (marginal and average effective tax rates) that capture the net effect of basic statutory tax provisions.
 - a. *Marginal effective tax rate (METR)* summarises the effect of the complicated tax code on an incremental investment and shows the impact of the tax system on the investor’s decision to infuse capital into the business.
 - b. *Average effective tax rate (AETR)* is a more general tax burden indicator in that it shows the effect of the tax regime not only on the incremental increase in investment like the METR but the effect of the tax regime on a total investment project as well.

Basic measures of the tax burden on business income do not specifically address tax-planning strategies of resident multinational firms to lower host country tax. Nor do they account for the costs to business of complying with the tax system, including costs associated with registration, completing and filing tax returns, and tax audits. Therefore, it is necessary to adjust the tax burden estimates to take tax planning and compliance costs into account in order to better gauge the “true” tax burden on business. Understanding the effects of multinational tax planning and compliance costs may lead to a reassessment of the appropriate tax policy and may encourage a greater focus on lowering compliance costs as a way of lowering the tax burden in the host country.

Policy practices to scrutinise

Each commonly used tax burden measure varies in terms of relevance, data intensity and complexity of use. More importantly, as each measure has its limitations for reflecting the true burden of the tax system on businesses, policy analysts must exercise care when interpreting the results.

Statutory tax rates

As the data is readily available, statutory tax rates are easy to use as a tax burden measure and can be applied to compare tax burdens across different time periods and in cross-country analysis. However, as many would be quick to point out, statutory rates tell an incomplete story. The effective tax on investment is usually lower than that suggested by nominal rates due to specific provisions in the tax legislation, such as tax incentives to promote investment.

Backward-looking measures, using historical data

Tax-to-GDP ratio. The main aggregate indicator used by policy makers worldwide to measure the significance of corporate taxes is the corporate tax-to-GDP ratio, which shows the share of total corporate tax revenues in gross domestic product. While relevant in policy analysis, this indicator could lead to ambiguous conclusions. The corporate tax-to-GDP ratio depends on the degree of incorporation in the country, which may vary over time. This variation could mislead policy analysts by implying that the tax burden has changed even when the corporate tax policy remained the same.

Average tax rate, expressed as the ratio of actual tax revenues to total corporate profits, using historical, firm-specific financial data, offers a more precise measure of the tax burden. Since actual revenue figures are used, the effects of statutory tax provisions – income tax rates, tax deductions, tax credits – and the effects of tax planning, as well as tax relief from lax or discretionary administrative practice, are taken into account. Moreover, the use of firm-specific, micro-level data permits the analysis of the tax burdens for various taxpayer groups with different taxpayer characteristics relevant to policy analysis, for example, for various sizes of firms, ownership structures, sectors or locations.

Forward-looking effective tax rates

Backward-looking tax burden indicators are measured with a time lag due to the reporting delay of National Accounts and revenue statistics data. This consideration increases interest in forward-looking tax burden measures, which only require readily-available tax parameter information which can be found in tax legislation and regulations. As such, forward-looking measures are easily used by policy analysts in assessing the tax burden implications of current or planned tax reform.

The marginal effective tax rate (METR) allows policy analysts to assess the impact of the various tax incentive measures on the rate of return for representative investment projects (at the margin). The METR assesses the amount of tax that arises when a firm decides to undertake an incremental unit of activity. A positive METR is an indicator of an activity that is *discouraged* by the tax system;

a negative METR is an indicator of an activity that is *encouraged* by the tax system. A zero METR indicates that the tax system is *neutral* to the activity. The METR measures the net effect of the main statutory provisions in determining effective tax rates by type of capital asset (machinery and equipment, buildings, inventories, intangibles) and by investor type (taxable resident, tax-exempt resident, non-resident). Such measures may be finessed by factoring in the effects of tax-planning strategies employed in the host country to strip out taxable profits (e.g. thin capitalisation, non-arm's length transfer prices) to tax havens. Annex 5.1 presents the standard methodology for calculating METRs.

The **average effective tax rate (AETR)**. Many investment decisions are discrete rather than marginal in nature. For example, multinational firms may face a choice between alternative locations for investment. In making a mutually exclusive location decision, the firm will choose the location that offers the highest post-tax profit. The tax-burden effect on this decision can be measured by the extent to which the pre-tax profit is reduced by taxation as reflected by the AETR. Conditional on this location choice, the scale of the investment will be determined by the METR. Annex 5.2 presents the standard methodology for calculating AETRs.

*Tax burden measures
adjusted for tax
planning*

Two approaches may be used to gauge the effects of corporate tax planning on the tax burden of firms.

- One approach adjusts the denominator (profit measure) of a backward-looking average tax rate. While the numerator of a basic average tax rate measure includes actual tax paid inclusive of tax planning, the denominator domestic profit measure may understate the “true” profit amount. A measure of true profit would include profit on business activity that is “artificially” shifted offshore by various means.² It is useful for policy makers to consider adjusted average tax rate estimates that

2. Possible means include the use of non-arm's length transfer prices on cross-border goods and service transactions with related affiliates, and (arm's length or non-arm's length) interest payments on inter-affiliate debt provided directly or indirectly by tax haven finance affiliates.

factor in common forms of tax planning.

- Another approach adjusts forward-looking parameter-based METR and AETR to capture the effects of various forms of commonly employed corporate tax planning strategies. Chapter 5 of the OECD's Tax Policy Study No. 17, *Tax Effects on Foreign Direct Investment: Recent Evidence and Policy Analysis*, provides an excellent guide for calculating METRs and AETRs that includes a number of tax-planning structures, such as thin capitalization of high-taxed subsidiaries, deferral of home country tax, use of "triangular" structures involving the use of tax haven finance affiliates, and the use of hybrid entities and hybrid instruments.

Tax burden measures adjusted for compliance cost

Too often, policy makers ignore the *qualitative* side of tax burden analysis. However, depending on the degree and sources of complexity, transparency and predictability of the given tax system, the tax compliance burden could be quite significant. Most recently, the usage of published international indicators, notably the World Bank's Doing Business Indicators (DBI), has grown in significance. While the limitations of the DBI are widely recognised and discussed, they can be utilised as a broader measure of business compliance costs. If resources and time permit, a dedicated, well-tailored tax compliance cost survey could provide policy makers with a wealth of information by identifying the most onerous legislative and regulatory provisions, from the business compliance cost perspective. Survey estimates of the total number of hours required to comply with the business tax system, combined with estimates of the value (cost) of each hour devoted, may be included in the calculation of the total tax burden.

Resources for further study

- For a detailed discussion of the various measures of tax burdens that assess the impact of taxes on economic activity, see OECD (2000), *Tax Burdens: Alternative Measures*, OECD Tax Policy Studies, No. 2, OECD Publishing.

- For use of micro-, taxpayer-level data in measuring average tax rates, see OECD (2003), *Using Micro-data to Assess Average Tax Rates*, OECD Tax Policy Studies, No. 8, OECD Publishing.
- For the methodology for calculating the marginal effective tax rate (METR), including data underlying the computations, see McKenzie, K.J., M. Mansour and A. Brûlé (1998), “The Calculation of Marginal Effective Tax Rates”, Working Paper, Vol. 97, No. 5, Technical Committee on Business Taxation, Department of Finance, Canada.
- For a detailed discussion of the AETR, investigating the role of taxation in cases where an investor faces a choice between two or more mutually-exclusive projects, see Devereux, Michael P. and Rachel Griffith (1998), “The Taxation of Discrete Investment Choices”, *Institute for Fiscal Studies Working Paper Series*, No. W98/16.
- For a discussion of forward-looking tax burden measures adjusted for tax planning, see OECD (2007), *Tax Effects on Foreign Direct Investment: Recent Evidence and Policy Analysis*, Tax Policy Studies, No. 17, OECD Publishing.
- For evidence on the scale of tax-planning activity, see Altshuler, R. and H. Grubert (2006), “The Role of Governments and MNCs in the Race to the Bottom”, *Tax Notes International*, Vol. 41, No. 5, pp. 459-474.
- For a discussion on how to construct measures of effective tax rates that reflect opportunities for various multilateral strategies, see Grubert, Harry (2004), “The Tax Burden on Cross-Border Investment: Company Strategies and Country Responses”, in: *Measuring the Tax Burden on Labor and Capital*, edited by Peter Birch Sorensen, MIT Press (CESifo Seminar Series), Cambridge, Massachusetts, pp. 129-170.

Comparison of actual versus target tax burden

5.3. *Is the tax burden on the business enterprises of investors appropriate with reference to the policy goals and objectives of the tax system?*

Rationale for the question

In choosing the tax burden to levy on domestic profit, the analysis should weigh the various objectives guiding overall tax policy design, including efficiency concerns, equity, simplicity and stability, and revenue requirements.

- *Efficiency:* The efficiency concern of a tax system calls for as little interference as possible with the market incentives for investment. This objective is often equated with low statutory and effective tax rates, broad tax bases and little or no differentiation across economic activities or industries.
- *Equity:* Equity concerns generally call for an equal sharing of the tax burden across different taxpayers with roughly the same income or purchasing power. Fairness implies equal taxation of equal incomes (horizontal equity) and higher taxation of higher incomes (vertical equity).
- *Simplicity and stability:* The tax code should display a high degree of transparency and clarity. Further, investors require stability for planning purposes. Although revisions in the code to accommodate both changing economic circumstances and taxpayer practices are to be expected, the main body of the tax law should remain relatively stable over time.
- *Revenue requirement:* The tax system should generate adequate revenue (recognising that adequacy is not easily defined) at marginal tax rates low enough to avoid discouraging economic activity.

Different goals will most likely suggest different tax burden levels. Harmonising various competing objectives is never an easy, but always a carefully balancing, act.

Key considerations

Tax officials should regularly assess the tax burden on investment, alongside analyses of tax revenues, as part of an ongoing assessment of the ability of the tax system to meet competing policy goals and objectives. The assessment must take into account the broader administrative, institutional and political considerations, such as:

- *Administrative factors:* Tax avoidance and evasion opportunities, and the costs of compliance, administration and enforcement.

- *Institutional factors*: The transitional costs of changing the tax system and complex implementation, legal and administrative issues.
- *Political economy factors*, such as election-related issues, including its timing. For example, politicians may use the tax system to favour particular interest groups and increase their probability of re-election.

If the existing tax burden on business income is judged to be inappropriate, policy consideration may be given to adjusting the provisions of the statutory tax burden, e.g. through some combination of adjustment to the statutory corporate tax rate, rates of depreciation for tax purposes or other measures.

Policy practices to scrutinise

Choice over an appropriate tax burden on investment, shaped by balancing various considerations, may begin with a fixed overall revenue requirement (to fund a given set of public expenditures). Given revenue requirements, policy makers would normally rely on a mix of taxes to meet those needs. The tax mix will include both direct and indirect taxes, including taxes on income and profits, taxes on property and wealth, consumption taxes, trade and other taxes.

The sensitivity of investment to taxation will be one of the determining factors in choosing the appropriate tax burden. When sensitivity to taxation is high, generally lower levels of taxation would be called for to discourage capital flight and non-reporting. Similarly, if the level of underground activity is significant and contributes negatively to the development potential of the country, drawing non-compliant firms into the tax net may require reducing the tax burden on unincorporated businesses, for example through more generous treatment of business losses or simplified tax rules that both reduce compliance costs and lower the effective rate of tax.

On the other hand, policy makers may be motivated to increase the tax burden on business by unwinding incentives found to be inefficient or strengthening tax base protection measures that guard against aggressive tax planning, to increase tax revenues available to help finance infrastructure projects important to business.

Resources for further study

For further reading on the various economic and political considerations that drive policy decisions on the level of tax burden, see:

- OECD (2010), *Choosing a Broad Base – Low Rate Approach to Taxation*, Tax Policy Studies, No. 19, OECD Publishing.
- OECD, “Tax and Economic Growth”, *Economics Department Working Paper*, No. 620, ECO/WKP(2008)28, OECD Publishing.

Understanding potential tax effects on investment

5.4. *If framework conditions and market characteristics for investors are weak, is it reasonable to assume that a low tax burden can compensate by impacting favourably on investment decisions?*

Rationale for the question

Any simple claim that tax incentives are either highly effective or highly ineffective could be challenged. Costa Rica, Ireland, Malaysia and Mauritius are habitually cited as success stories in attracting investment by lowering tax burdens. What is often missing from the discussion of the success of these countries is the reflection on the framework conditions and market characteristics that these countries offer *in addition* to tax breaks and generous incentives regimes – namely, stable economic and political conditions, a well-educated labour force, good infrastructure, open trade for exporters, dependable rule of law and effective investment promotion systems.

To support this point further, ample worldwide evidence suggests that where framework conditions or market characteristics are relatively weak, a low tax burden has a limited effect on swinging investment decisions in the country's favour. Moreover, where framework conditions are weak, a low host country tax burden achieved through the use of special tax incentives may operate to discourage rather than encourage investment, by contributing to project cost and risk. This is especially the case where the introduction of, and subsequent changes to, incentive schemes give the impression of an unstable tax system. Many transition economies have had a disappointing experience from their attempts to rely on a low tax burden (typically targeted at foreign investment) to boost investment.

The real goal is then to analyse the economic, fiscal, institutional and political conditions that a country has to offer in order to understand if the introduction of tax incentives has the potential to impact favourably on the investment decisions. Given the country's setting, *if and when* a lower tax burden is deemed to be appropriate and potentially beneficial, further analysis is necessary to design the tax incentive programme so it maximises the impact and minimises the costs, *i.e.* encourages investment without forgoing significant tax revenues.

Key considerations

Despite analysis indicating a limited investment response to a lower tax burden relative to revenue losses and administrative costs, tax incentives are routinely chosen by governments to attract investment in general, and foreign direct

investment (FDI) in particular. Three simple reasons provide the rationale behind this widespread practice, particularly in the context of developing countries:

- it is much easier to provide tax incentives than to correct deficiencies in, for example, infrastructure or skilled labour;
- tax incentives do not require an actual expenditure of funds or cash subsidies to investors;
- tax incentives are politically easier to provide than public funds.

Further, politicians and policy makers often cite the following two arguments to justify their decision to lower tax burdens in order to attract investment.

- First, domestic savings, especially in emerging and developing countries, could be so low that they are insufficient to finance economic expansion. Similarly, weak financial intermediation can have a similar effect on investment, effectively limiting business resources for investment. In such environments, a lower tax burden is thought to attract FDI as a source of external finance.
- Second, evidence suggests that investment may generate positive externalities – “spillovers” – toward the host economy. Investment can:
 - act as a trigger for technology and know-how transfers;
 - upgrade workers’ skills and generally support human capital formation;
 - assist enterprise development and restructuring, especially in connection with privatisation;
 - nurture business clusters and contribute to fuller international (trade) integration.

As noted above, the effectiveness of tax incentive measures to impact favourably on investment decisions will ultimately depend on the specific country’s situation, most notably the macroeconomic framework conditions, its market characteristics and the existence of location-specific profits.

Policy practices to scrutinise

When introducing changes in the tax burden in order to achieve given investment goals, policy makers must ensure that the cost of achieving the given investment goals – namely, revenue loss – is kept at the lowest feasible level and does not exceed the benefits of the implemented policy. As such, thorough analysis of the effectiveness of proposed tax provisions should be conducted both *prior* to the introduction of investment-promotion measures as well as systematically *ex-post*, to

assess the extent to which the measures meet their intended objectives. The following criteria could help decision makers in distinguishing between beneficial and wasteful measures:³

- *Ineffectiveness*. The proposed tax burden-reduction measures fail to produce benefits to the host economy that exceed the budgetary costs. This situation may also arise where authorities applied faulty cost-benefit analysis (or no cost-benefit analysis at all) to their incentive programmes or where promised benefits do not materialise.
- *Inefficiency*. This is the case where incentives produce benefits that outweigh the costs, but authorities fail to properly maximise the benefits and minimise the costs. In other words, similar results might have been obtained at a lower cost.
- *Opportunity costs*. When the resources available to attract investment are scarce, the issue of alternative usage of funds arises. Incentive schemes that are both effective and efficient may nevertheless be wasteful if the funds that are sunk into financing them could have been used more profitably.
- *Deadweight loss*. This term refers to a situation when:
 - Investment projects that would have taken place in the absence of incentives are subsidised by a generous incentive scheme.
 - The intended recipients of targeted incentives are not adequately specified, resulting in spillover to non-target groups.
 - By offering particularly generous incentives to some projects, policy makers effectively “raise the bar”, creating a reference point that future investors will demand for a similar degree of generosity.
- *Triggering competition*. The long-term costs of an incentive scheme include the economic burden that arises if other jurisdictions put in place matching measures. This is of particular concern when new measures are introduced or the existing measures are significantly augmented. Doing so without properly assessing the likely reactions of other jurisdictions can, in many cases, amount to a wasteful practice.

While stressing the need for cost-benefit assessments of tax incentives, it must be recognised that systematically assessing tax measures is a data-, time- and resource-consuming process. Often times, policy analysts do not have sufficient data to evaluate the overall effects of tax measures. It is therefore highly advisable to collect data systematically to support the assessment of the costs of tax

3. This list of wasteful criteria draws on OECD (2003), *Checklist for Foreign Direct Investment Incentive Policies*, OECD Publishing.

expenditures and to monitor the overall effects and effectiveness of individual tax incentives.

Resources for further study

The OECD's Task Force on Tax and Development has developed a framework for tax incentives for investment, whose purpose is to promote transparency in decision-making processes, increase the information available on costs and benefits, limit discretion and increase accountability. The *Principles of Transparency and Governance of Tax Incentives for Investment* is emerging as an international consensus on the governance of investment-related incentives.

For a detailed discussion on wasteful investment measures and the potential pitfalls and risks of excessive reliance on incentive-based strategies, see:

- OECD (2003), "Checklist for Foreign Direct Investment Incentive Policies", OECD, Paris.
- OECD (2007), *Tax Effects on Foreign Direct Investment: Recent Evidence and Policy Analysis*, Tax Policy Studies, No. 17, OECD Publishing.
- OECD (2007), "Tax Incentives for Investment – A Global Perspective: Experiences in MENA and Non-MENA Countries", OECD, Paris.
- OECD (2003), *Tax Policy Assessment and Design in Support of Direct Investment: A Study of Countries in South East Europe*, OECD Publishing.
- Oman, C. (2000), *Policy Competition for Foreign Direct Investment: A Study of Competition among Governments to Attract FDI*, Development Centre Studies, OECD Publishing.

Addressing tax distortions to investment

5.5. *Where the tax burden on business income differs by firm size, age of the business entity, ownership structure, industrial sector or location, can these differences be justified? Is the tax system neutral in its treatment of foreign and domestic investors?*

Rationale for the question

Tax systems may impose a non-uniform effective tax rate on different businesses, depending on their size, ownership structure (e.g. domestic versus foreign-owned), business activity or location. Certain firms may be specifically targeted to receive preferential tax treatment. Tax relief may be provided on a targeted basis to firms depending on firm size, sector, industry, location or ownership structure.

- *Size:* Tax relief may be targeted, for example, at “small” firms – those with income or assets below a threshold value.
- *Sector/industry:* Tax burden can vary for firms in a specific sector (e.g. manufacturing) or more narrowly a specific industry (e.g. automobile manufacturing).
- *Location:* Tax relief may be targeted at firms in a given location, for example in a specific province or state, or in a region of the country with high unemployment.
- *Ownership:* The ownership structure of a firm may determine tax relief. Concessions (e.g. tax holidays) may be targeted at firms wholly or partially owned by foreign (non-resident) shareholders, and may depend on the type of financing. For example, some countries target tax relief to “new” equity capital.

Key considerations

In some cases, there might indeed be good reasons for implementing targeted tax incentives. The commonly used arguments for unequal treatment of investors involve economic and administrative efficiency, and equity.

Economic efficiency. The standard justification for differential tax treatment on efficiency grounds is that tax incentives can correct for market imperfections. These “market correction” arguments are based on the assumptions that private investors do not take into account the benefits to the larger society of certain types of investment, which leads to under-investment. Another line of market failure arguments suggests that asymmetric information on markets or products or monopoly power of large firms could make entry difficult for SMEs or make it difficult for SMEs to raise finance.

Administrative efficiency: The administrative argument is that it is often easier for government to administer a tax incentives programme than to deliver a similarly-targeted expenditure programme. For example, if a government wants to encourage renewable energy development, the tax administration will have an advantage over the energy sector government agencies as it already has knowledge, systems and experience in administering tax incentive programmes.

Equity: Some investment incentives have redistributive goals, for example, policies aimed at increasing investment and bolstering employment and growth in poorer parts of a country. In such cases, assessing the overall distributional impact is quite difficult, but targeted location incentives may indeed encourage investment in inefficient locations and have positive distributional consequences.

Where tax relief is targeted, policy makers should examine and weigh arguments in favour of and against such treatment, and ensure that the different treatment can be properly justified. Where justifications are weak (e.g. where corporate tax relief is targeted at foreign investors to the exclusion of domestic investors) consideration should be given to a non-targeted approach.

Policy practices to scrutinise⁴

Tax burden measures that vary considerably from one investment type to another must be explained. Policy makers, therefore, need a clear understanding of the tax system's impact on various investor groups. Analysts also want to know whether their targeted investment approach is effective in meeting its intended policy objectives (e.g. encourage investment in disadvantaged regions), or otherwise efficiency gains may be realised if the system were more neutral in its treatment of different investment types. Beyond this, efficient targeting requires accurate estimates of the amount of tax revenue foregone in order to compare the realised benefit against the costs associated with the targeted incentives.

Further considerations in targeting tax incentives involve limiting tax relief to targeted firms/activities only – for example, to small businesses. Policy makers must recognise that *all* taxpayers will analyse the targeting criteria and attempt to benefit from the tax incentive. For example, a non-qualifying (medium or large) firm may reorganise itself into two or more new business entities to access tax relief conditional on firm size. Similarly, companies will attempt to characterise or re-characterise certain activities so that they fall within the boundaries of qualifying business activities, for example, to qualify for R&D tax incentives. Non-qualified companies can channel asset purchases through qualifying companies. Likewise, qualifying firms in a loss position can sell their balances of unused business losses

4. Draws on OECD (2009), *Taxation of SMEs, Key Issues and Policy Considerations*, OECD Tax Policy Studies, No. 18, OECD Publishing.

and tax credits to firms outside the target tax incentive group that are profitable and able to use them to reduce their tax liability. Inevitably, the government can come under pressure to extend tax incentive relief to taxpayers/activities that were not initially targeted.

Two approaches may be used to inform an assessment of whether tax-driven variations across businesses of different size and industrial sector can be justified.

Backward-looking average tax rates for different investor groups. The first approach computes average tax rates for different groups of firms, stratified to correspond to targeting investor groups, e.g. firm size, sector, industry, ownership structure, location. The analysis could include an assessment on the profits of:

- SMEs, including enterprises structured in corporate and unincorporated form;
- large enterprises majority-owned by residents;
- large multinational enterprises controlled by foreign parent companies.

Forward-looking effective tax rates for different investments. The second approach is to measure effective rates (METRs/AETRs) for groups of firms disaggregated by size, sector, industry, location, ownership structure, taxable status. Computation of effective rates for different domestic investment types – for example, those qualifying for targeted tax relief and those who do not – allows one to examine distortions to investment decisions introduced by the tax system. In particular, the distorting effects of a given tax incentive can be examined by allowing the incentive parameter (e.g. corporate tax rate, tax depreciation rate, investment tax credit rate) to vary, while holding all other factors fixed.

Please refer to the discussion under Question 5.2 of this Toolkit for a more detailed discussion on tax burden measures.

Resources for further study

- OECD (2010), *Tax Policy Reform and Economic Growth*, OECD Tax Policy Studies, No. 20, OECD Publishing.
- OECD (2009), *Taxation of SMEs, Key Issues and Policy Considerations*, OECD Tax Policy Studies, No. 18, OECD Publishing.
- OECD (2001), *Corporate Tax Incentives for Foreign Direct Investment*, OECD Tax Policy Studies, No. 4, OECD Publishing.
- OECD (2007), “Taxation and Foreign Direct Investment, Report of Working Party No. 2”, OECD, Paris.

- OECD (2005), “Incentives and Free Zones in the MENA Region: A Preliminary Stocktaking”, document prepared for Working Group 2 of the MENA-OECD Investment Programme, OECD, Paris.
- Oman, C. (2000), *Policy Competition for Foreign Direct Investment: A Study of Competition among Government to Attract FDI*, Development Centre Studies, OECD Publishing.

Determination of taxable income

5.6. *Are rules for the determination of corporate taxable income formulated with reference to a benchmark income definition (e.g. comprehensive income), and are the main tax provisions generally consistent with international norms?*

Rationale for the question

In dealing with any given corporate tax system, investors expect basic tax provisions that adequately reflect business costs, including loss carry-forward provisions that are consistent with those commonly employed elsewhere. Investors also view negatively the double taxation of income within the corporate sector and generally expect zero taxation of, or tax relief on, inter-corporate dividends particularly when paid along a corporate chain. In short, policy makers are encouraged to ensure that reasonable expectations of the main design features of the tax system are recognised.

Key considerations

As a guide for assessing policy for determining the tax base for business income, policy makers are encouraged to consider alternative design options, with regard to those applied in other countries. Such references, along with consideration of the pros and cons of alternative approaches, are helpful in deciding and defending an appropriate set of tax base provisions and avoiding adjustments that could prove unsatisfactory when assessed against a balancing of policy goals (e.g. raising revenue, providing competitive tax treatment, limiting inefficiency, supporting equity and avoiding undue complexity). Policy makers wishing to retain and attract investment should be encouraged to explore and address a number of key tax base provisions, including depreciation, inventories, business losses, inter-corporate dividends, corporate capital gains and losses, and allowances for the cost of corporate equity.

Policy practices to scrutinise

Investors may raise various concerns with respect to tax base rules based on the following set of questions:

- Do tax depreciation methods and rates adequately reflect true economic rates of depreciation of broad classes of depreciable property (serving as benchmark rates) and account for inflation?
- Are possible time limits on the carrying forward (and possibly back) of business losses, to offset taxable income in future (prior) years, sufficiently generous/consistent with international norms? The case for generous carry-

forward is particularly strong where depreciation claims are mandatory rather than discretionary.

- Are inter-corporate dividends (paid from one resident company to another) excluded from corporate taxable income to avoid double/multiple taxation?
- Are domestic dividends paid to resident individuals subject to classical treatment or is integration relief provided in respect of corporate tax on distributed income (e.g. partial inclusion of dividend income, or imputation or dividend tax credit)? Is there evidence that such relief lowers the cost of funds for firms? Or is such relief intended to encourage domestic savings? Where integration relief is given in respect of distributed profit (dividends), is similar relief provided in respect of retained profit (e.g. partial inclusion of dividends and capital gains)?
- Where capital gains are subject to tax on a realisation basis, are taxpayers allowed a deduction for capital losses (e.g. against corresponding taxable capital gains)? Do “recapture” rules apply to draw into taxable income excess tax depreciation claims on depreciable property?
- Is the tax treatment of wage income, as well as interest income, dividends and capital gains (realised at the personal or corporate level) designed to minimise incentives to: *i*) characterise one form of income as another; and *ii*) choose one organisational form over another (incorporated versus unincorporated) for purely tax reasons? In other words, are efforts made to minimise tax arbitrage possibilities?

While addressing investors’ concerns, policy makers should be encouraged to:

- limit windfall gains (*i.e.* the provision of tax relief that does not achieve the desired goals) to investors and, in the case of inbound direct investment, foreign treasuries;
- minimise the scope for exploitation by business of the tax system (e.g. through tax arbitrage);
- ensure single taxation of income sourced in the host country (e.g. through enforcement of domestic tax rules and negotiation of tax treaties);
- keep tax administration costs in check.

Resources for further study

For further discussion on the various policy considerations that drive the determination of corporate taxable income and are the main tax provisions, see:

- OECD (2010), *Choosing a Broad Base – Low Rate Approach to Taxation*, Tax Policy Studies, No. 19, OECD Publishing.
- OECD, “Tax and Economic Growth”, *Economics Department Working Paper*, No. 620, ECO/WKP(2008)28, OECD Publishing.

Accounting for unintended tax incentive effects

5.7. Have targeted tax incentives for investors and others created unintended tax-planning opportunities? Are these opportunities and other problems associated with targeted tax incentives evaluated and taken into account in assessing their cost-effectiveness?

Rationale for the question

Unfortunately, tax incentives are all too often viewed as a relatively easy “fix” to promote investment. Indeed, a tax incentive holds out the apparent advantage of not requiring a cash-equivalent outlay, in contrast with infrastructure development, manpower training or other programmes introduced to foster investment. The reasoning goes as follows: by targeting tax relief at new investment, a tax incentive will only reduce the amount of tax revenue raised on additional investment – revenue that would not have been raised anyway in the absence of the incentive.

This perception misses the fact that tax incentive relief will create unintended and unforeseen tax-planning opportunities. To varying degrees, tax incentives will result in windfall gains – that is, tax relief to investors that does not result in additional investment but supports investment that would have gone ahead in the absence of that relief. Even when targeted at new investment, tax incentives will always be sought by businesses outside the target group. Existing firms will attempt to characterise themselves as “new”, and other similar tax-planning strategies can be expected that will deplete tax revenues from activities unrelated to any new investment attributable to the tax relief, with lost revenues often significantly exceeding the original projections.

Key considerations

Tax policy features that give rise to unwanted and unintended outcomes might be adjusted to curtail negative effects. This question encourages policy makers to carefully consider how tax incentives, depending on their type and design, give rise to certain unintended and unwelcome results, and what policy changes might be considered to counter those unwanted effects.

Unintended effects due to tax policy design features

Tax holidays or partial profit exemptions, in particular, offer significant scope for tax relief unintended by tax authorities. These incentives are typically targeted at “new” companies. However, the Aladdin’s lamp problem (“new firms for old”) commonly occurs as old firms reconstitute as new ones towards the end of their

holiday periods, so that they can continue to be tax-exempt.

Further, *partial or full profit exemption* also opens up transfer pricing opportunities to artificially shift taxable income from non-qualified business entities to entities that do qualify. Similarly, channeling asset purchases through qualifying companies on behalf of non-qualifying ones is also common. Aggressive transfer pricing techniques essentially involve the use of non-arm's length prices on intra-group transactions and non-arm's length interest rates on intra-group loans, to shift taxable income to low or non-taxed entities.

Targeted tax incentives may create unintended distortions. For example, *investment tax credits* could be abused through "churning" of qualified assets. They also distort investor choice towards short-lived assets. Similarly, *reinvestment allowances* would tend to discourage investment financed by new equity and may raise the overall cost of funds, implying welfare losses.

Unintended interactions of multiple tax provisions

Unintended distortions may also be created where interactions between tax incentives and other provisions of the tax code (e.g. depreciation treatment, loss treatment) are not adequately addressed. Further, if not properly co-ordinated, "stacking" of multiple tax incentives offered by different ministries at the same level or by different levels of government could occur, creating unintended distortions, including possible over-investment.

Unwanted encouragement of corrupt practices

Tax incentives may also encourage corruption and aggravate concerns raised by poor public governance. When used, targeted tax incentives should be designed to be as automatic as possible in their application, to avoid the involvement of tax officials in the determination of the application of provisions to individual taxpayers. Also to be avoided are situations where tax officials undertaking audits have the power to withdraw tax incentive relief, without special safeguards against corrupt practices. Frameworks should be in place to discourage bribery of tax and customs officials in such cases.

Policy practices to scrutinise

Various forms of targeted tax relief may create unintended scope for tax planning, and result in revenue losses well in excess of the levels originally anticipated (e.g. where the relief spills over to benefit non-targeted taxpayer groups). It should be noted, however, that when a previously unforeseen tax-planning opportunity for an existing tax incentive becomes apparent, it is not without cost for the government to withdraw the incentive. While cancelling incentive relief for *future* investment may be accepted by investors, cancelling relief tied to *prior* investment decisions – that may have been based on the expectation of tax incentives previously on offer – can carry a significant cost. In particular, policy credibility is seriously undermined, weakening government’s ability to influence investment behaviour in the future through policy adjustment. Given this, where tax incentive relief linked to investment expenditure (e.g. enhanced or accelerated depreciation, investment tax credit) is cancelled, tax relief tied to prior investment generally should be respected – unless the costs are so exorbitant that respecting past commitments would be devastating to public finances.

Within the context of a general policy goal to avoid windfall gains (and losses), transitional considerations related to the introduction and removal of tax incentives should be addressed. Where tax relief is provided, a general aim is to target tax relief to incremental investment, that is, investment that would not have occurred in the absence of the incentive. Conversely, where tax relief is withdrawn, it is important to attempt to ensure that past investments are not penalised.

Resources for further study

For further reading on unintended tax-planning opportunities and policy choices/considerations to address unintended tax revenue impacts of targeted tax incentives, see:

- OECD (2001), *Corporate Tax Incentives for Foreign Direct Investment*, OECD Tax Policy Studies, No. 4, OECD Publishing.
- OECD (2011), *Corporate Loss Utilization through Aggressive Tax Planning*, OECD Publishing.
- See also OECD (2011), *Tackling Aggressive Tax Planning through Improved Transparency and Disclosure*, OECD Publishing.

Tax expenditure reporting

5.8. Are tax expenditure accounts reported and sunset clauses used to inform and manage the budget process?

Rationale for the question

Tax expenditure analysis and reporting are a cornerstone of fiscal policy in countries where attracting capital and addressing public governance issues remain high on the political agenda. The primary purpose of the tax expenditure analysis is to identify the “cost” of preferential tax provisions – revenue losses associated with tax incentives and other departures from a “benchmark” tax system. The amount of revenue loss attributable to tax incentives should be reported regularly, ideally as part of an annual budget process (covering all of the main tax incentives).

Further, like all forms of public spending, tax incentives targeted at investment should be assessed for their effectiveness. The assessment should be conducted both in advance and following the implementation, to gauge whether a preferential tax measure passes or fails a cost-benefit test. To enable such evaluations, the specific goals of a given tax incentive need to be made explicit at the outset to enable a proper assessment of the degree to which stated goals are met. When introducing tax incentive legislation, “sunset clauses” should also be included calling for the expiry of the incentive (e.g. three years after implementation). An assessment of the effectiveness of a given tax provision will establish whether the incentive should be extended or not.

Key considerations

There are several powerful reasons for policy makers to analyse, document and track their tax expenditures.

- **Input to cost-benefit analysis.** Most importantly, tax expenditure reporting serves as input to cost-benefit assessment of tax incentives. As such, it allows policy makers to initiate steps in containing tax expenditure costs by supporting decision making on which tax incentives to keep and which ones to let go.
- **Accountability.** Publicly available tax expenditure estimates increase public knowledge of government activities and objectives and permit the legislature and civil society organisations to scrutinise and hold government accountable for all aspects of its budget. Furthermore, it allows the public to more easily track and assess changes in government policy.
- **Equity.** Since the benefits of a tax expenditure are directly related to both the tax status of the potential investors and to other provisions in the tax

code, their effect is frequently uneven. Tax expenditure quantification helps to focus attention on the structure of a tax system and asks the question “what system is most equitable and efficient?” It thereby forces the question as to whether each of the various deviations is justifiable.

- **Efficiency.** Tax expenditure estimates permit a comparison of the indirect costs of programmes with alternative means of achieving similar objectives. These alternatives may be either direct expenditures or other tax expenditures.

Policy practices to scrutinise

Several issues need to be scrutinised to fully assess a host country’s tax expenditure analysis and reporting practices. The OECD’s *Principles of Transparency and Governance of Tax Incentives for Investment* serve as a good framework for the management issues of investment-related incentives.

Defining a “benchmark” tax structure

To estimate tax expenditures, the “benchmark” tax structure which contains no preferential tax treatments needs to be established. Tax expenditures are then defined as deviations from this benchmark tax system. It is important to recognise that reasonable differences of opinion exist as to the definition of the benchmark tax system, and hence what constitutes a tax expenditure. Labelling a provision as a tax expenditure presupposes that there is a “normal” tax structure. However, a normal tax structure is not a fixed concept. For all of their detail, there are no fully defined and accepted concepts of taxable income or taxable transactions. Policy analysts should be aware that cross-country comparison of tax expenditures might not be valid due to acceptance of arbitrary definitions and conventions. Similarly, in-country revisions of methodology and the “benchmark” can result in substantial changes to the reported values of tax expenditure over time and make year-to-year comparisons of tax expenditures invalid.

Identifying redundant vs. additional tax expenditures

Policy analysis should attempt to distinguish between redundant versus additional tax expenditures. If the investment would not have been made in the absence of tax incentives, the direct revenue loss is effectively zero (tax expenditure is “additional”). On the other hand, if incentives have no effect on investment, then the entire forgone tax revenue constitutes a revenue

Estimating tax expenditures

loss (tax expenditure is “redundant”). The true amount of direct revenue losses is likely to be between these two extremes.

A range of methodologies exists internationally to estimate tax expenditures:

The *Revenue forgone* method is an *ex post* quantification of the extent to which a provision reduces revenues. Taxpayer behaviour is accepted as given and impacts resulting from other investment and consumption patterns or decisions regarding other tax expenditures are excluded from the estimates.

Revenue gain method is an *ex-ante* estimate of the total expected budgetary effect of the expenditure, taking into account the impact of changes in taxpayer behaviour and inter-relationships of tax provisions.

Outlay equivalent method estimates the outlay that the government would need to expend in order to provide the beneficiaries with the same after-tax economic benefits that they receive from tax expenditures as measured by the revenue forgone method. This method takes into account the fact that taxpayers must often pay income taxes on the direct government benefits they receive. As a result, the equivalent outlay estimates are generally larger in order to account for the portion of benefits that recipients must pay back in taxes.

In practice, the revenue forgone method is primarily used. Outlay equivalent and revenue gain estimates can be quite useful for specific policy analysis, but their estimation is much more complex than for revenue forgone. Policy analysts need to be aware of the drawback of the revenue forgone method. As a consequence of the all-else-equal nature of revenue forgone estimates, they are not additive. Many tax expenditures interact with each other; therefore, a simple sum of individual tax expenditures is not a precise reflection of the overall tax expenditure of the system. Eliminating a particular tax measure will not translate into an equivalent amount of revenue gain as the tax expenditure estimate indicates.

Accounting for the indirect costs of tax incentives

Often ignored, the indirect costs of tax incentives, including the administrative costs from running them, could be quite substantial. To present a full picture of their costs, policy analysts should attempt to quantify the indirect costs and include them in the total tax expenditure reporting.

Conducting periodic review of tax incentives

Once they are granted, tax incentives usually remain in laws unless they are revoked or introduced with a “sunset clause”. Hence, there is a need to assess performance on a regular basis. Performance reviews should include the costs as well as the benefits of the tax incentive and if it has met its intended goals. The results of such periodic reviews would inform decision making around the continuation or removal of individual tax incentives. The review criteria and results should be reported publicly. To the extent possible, behavioural responses, both positive (e.g. additional incremental investment) and negative (e.g. aggressive tax planning) should be tracked and communicated.

Reporting the principal beneficiaries of tax incentives

The principal beneficiaries of tax incentives for investment by specific tax provision should be included in the regular statements of tax expenditures. It may be possible that a few investors, or sectors, benefit from most tax expenditures. The tax expenditure statement should have sufficient detail to enable policy makers to identify which sectors benefit from specific tax provisions. Where compatible with the requirement of laws and regulations governing taxpayer confidentiality, authorities may wish to consider detailing the main beneficiaries and the amount by which they benefit from tax incentives. Making such information public can enhance the legitimacy of governments and their revenue authorities in the eyes of citizens which, in turn, can enhance compliance more broadly.

Resources for further study

For further reading on a variety of tax expenditure issues, including tax expenditure estimation techniques and methods to evaluate their effectiveness, see:

- OECD, *The Principles of Transparency and Governance of Tax Incentives for Investment*, Task Force on Tax and Development, OECD, Paris.
- Caiumi, A. (2011), “The Evaluation of the Effectiveness of Tax Expenditures – A Novel Approach: An Application to the Regional Tax Incentives for Business Investments in Italy”, *Taxation Working Papers*, No. 5, OECD Publishing.
- OECD (2010), *Tax Expenditures in OECD Countries*, OECD Publishing.
- Kraan, D.J. (2004), “Off-budget and Tax Expenditures”, *OECD Journal on Budgeting*, Vol. 4/1, OECD Publishing.

International tax co-operation

5.9. Are tax policy and tax administration officials working with their counterparts in other countries to expand their tax treaty network and to counter abusive cross-border tax planning strategies?

Rationale for the question

Tax treaties aim to improve the certainty of cross-border projects and lower the costs and risks of international investment. A wide tax treaty network is helpful to countries seeking to attract investment in several ways:

- Most importantly, tax treaties operate to avoid double taxation of cross-border investment returns.
- Treaties reduce investor uncertainty over tax treatment by establishing procedures to help resolve disputes over the allocation of taxing rights between host and home countries.
- Tax treaties usually seek to stipulate lower non-resident withholding tax rates on dividends, interest and royalties.
- Often, treaties limit tax paid in the home (resident) country to that of the host country.

Further, tax treaties bring clarity into cross-broader dealings by providing a framework to exchange information among tax authorities to counter more aggressive forms of tax planning.

Key considerations

Tax treaties generally reduce the uncertainty and cost of international investment; they achieve this in several major ways.

Avoid double taxation First, and perhaps foremost, tax treaties operate to avoid double taxation of cross-border investment returns. In the absence of a tax treaty between a host and home country, double taxation of returns will normally arise where the two countries treat a given tax return differently. For example, countries may take different views on the source or origin of income, or the type of income paid (e.g. interest versus dividends), with different characterisations triggering different tax treatment. Tax treaties operate to avoid these different characterisations and thereby minimise the scope for double taxation.

Reduce investor uncertainty

Tax treaties help reduce investor uncertainty over tax treatment. Indeed, certain articles of tax treaties are specifically aimed at establishing procedures to help resolve disputes over the allocation of taxing rights between host and home countries. A wide tax treaty network therefore tends to make countries more attractive, in relation to tax considerations, both as locations for business activity and as places from which to conduct global business operations, by lowering project costs as well as project risks.

Lower non-resident tax

Tax treaties generally stipulate lower non-resident withholding tax rates on dividends, interest and royalties. Indeed, treaty-negotiated rates are often significantly lower than statutory withholding tax rates that would otherwise apply. This aspect of tax treaties also serves to lower project costs.

Enable the exchange of information amongst tax authorities

Tax treaties provide a framework to enable the exchange of information amongst tax authorities to counter more aggressive forms of tax planning in relation to foreign source income as well as domestic source income (that may be stripped out to tax havens through the use of special corporate structures and financing and repatriation strategies).

Policy practices to scrutinise

Number of tax treaty partners. An assessment of the scope of a country's tax treaty framework requires consideration of the specific countries that are its treaty partners. A long list generally implies broad access to investors, particularly where a number of the partners are large capital-exporting countries. However, the scope of a host country's tax treaty network cannot be assessed by a simple count of the number of its tax treaty partners. While a large number of treaty partners may signal a large pool of potential investors, it is not necessarily the case that a small number of treaty partners signals the opposite. Treaties with certain countries (e.g. Belgium, the Netherlands, the United Kingdom) that are attractive conduit locations for routing investment may provide the host country with access to investors in a large number of countries – in particular, to countries that have a tax treaty with one or more of these countries as hosts to intermediate financing services.

Tax treaty negotiation dates. Similarly, the scope of a host country's tax treaty network in reaching investors cannot be assessed by reference to the dates on which its tax treaties were negotiated or renegotiated. When a treaty was brought into force many years ago, the conclusion cannot be drawn that it does not provide benefits that are less (or more) attractive than a relatively new treaty.

Level of non-resident withholding taxes. One of the central benefits tax treaties provide to investors is the reduction to non-resident withholding tax rates on payments used to repatriate earnings – dividends, interest and royalties. Therefore, an important consideration is the level of non-resident withholding tax rates negotiated with key tax treaty partners. To guide the assessment of tax treaties, the table below suggests withholding tax rates that would generally be regarded as attractive by investors.

Payment type	Treaty withholding tax rate
Interest	10%
Direct dividends	5%
Portfolio dividends	15%
Royalties	10%

Resources for further study

- The OECD has proposed a model treaty to use as a starting point in international treaty negotiations. The OECD Model Convention on Income and on Capital provides a means for settling (on a uniform basis) the most common problems that arise in the field of international exchange of goods and services and cross-border movements of capital, technology and persons.

Annex 5.1. Methodology for calculating the METR

The methodology for estimating marginal effective tax rates (METRs) is extensively documented.⁵ We follow the discussion in Chen and Mintz (2008).⁶

The standard theory of investment defines the METR as:

$$METR = \frac{r^G - r^N}{r^G}$$

where r^G is the pre-tax rate of return (at the margin) required by an investor and r^N is the after-tax rate of the return (at the margin).

The after-tax rate of return, r^N , is defined by the formula:

$$r^N = \theta i + (1 - \theta)\rho - \pi$$

where θ is the debt-to-assets ratio, i is the nominal interest rate on debt finance, ρ is the nominal required rate of return on equity and π is the inflation rate.

One of the main components of the pre-tax rate of return, r^G , is the real cost of funds, r^f , defined as:

$$r^f = \theta i (1 - U_j) + (1 - \theta)\rho - \pi$$

where U_j is the statutory corporate income tax rate of sector j .

Next, r^G is defined for four classes of assets: building, machinery, land and inventory.

5. See, for example:

- OECD (1995), *Taxation and Foreign Direct Investment: The Experience of the Economies in Transition*, OECD Publishing.
- McKenzie, K.J., M. Mansour and A. Brûlé (1998), “The Calculation of Marginal Effective Tax Rates”, Working Paper, Vol. 97, No. 15, Technical Committee on Business Taxation, Department of Finance, Canada.
- Mintz, Jack M. (1995), “Tax Holidays and Investment”, in Shah, A. (ed.), *Fiscal Incentives for Investment and Innovation*, pp. 165-194, Oxford University Press, New York.

6. Chen, D. and J. Mintz (2008), “Taxing Business Investment: A New Ranking of Effective Tax Rates on Capital”, prepared for the Foreign Investment Advisory Service of the World Bank.

Depreciable assets: Building and machinery. For depreciable assets, r^G is estimated as:

$$r^G = (1 + \mu) (r^f + \delta) (1 - k) \left(\frac{1 - A + \frac{c^t (1 - U)}{(r^f + \pi + \alpha)}}{(1 - U) (1 - t^p - t^g)} \right) - \delta$$

where μ is the non-creditable transaction tax (such as import duty and sales tax) on capital goods; δ is the economic depreciation rate; k is the investment tax credit rate; A is the present value of future tax savings from depreciation allowances, defined below for various depreciation schedules, c^t is the capital tax rate, α is the tax depreciation rate, t^p is the property tax rate and t^g is the gross receipts tax rate or presumptive tax that is based on the gross revenue.

Land. For land, r^G is defined by:

$$r^G = r^f (1 + \mu) \frac{1 + \frac{c^t (1 - U)}{(r^f + \pi)}}{(1 - U) (1 - t^p - t^g)}$$

where μ is the property transfer tax.

Inventory. For inventory, r^G is defined as:

$$r^G = (1 + \mu) \frac{(r^f + U\pi\zeta)}{(1 - U) (1 - t^g)} + c^t$$

where μ is the sales tax on raw materials (when applicable); and $\zeta = 1$ for the FIFO accounting method, 0 for the LIFO method and 0.5 for the average cost method.

The expression for **A (the present value of future tax savings from depreciation allowances)** for a declining-balance depreciation schedule is defined as:

$$A = \frac{U \alpha}{\alpha + r^f + \pi}$$

The expression for A in case of a straight-line depreciation schedule:

$$A = \frac{U (1 - e^{-(r^f + \pi)L})}{(r^f + \pi)L}$$

where L is the lifetime for each depreciable asset, with the asset depreciated at the rate $1/L$ in each year.

The expression for A when a portion γ of an asset can be immediately expensed, with the remaining $(1 - \gamma)$ depreciated under a declining-balance depreciation schedule is defined as:

$$A = U \frac{(r^f + \pi) \gamma + \alpha}{\alpha + r^f + \pi}$$

The METR for a given industry is the proportional difference between the weighted average of the before-tax rate of return by asset type and the after-tax rate of return; the latter is the same across asset types within a given sector. That is, the METR for industry i (t_i), is calculated as follows:

$$t_i = \frac{\sum_j r_{ij}^g w_{ij} - r_i^n}{\sum_j r_{ij}^g w_{ij}}$$

where j denotes the asset type (that is, investments in buildings, machinery, inventories and land) and w_{ij} denotes the weight of asset j in industry i .

Annex 5.2. Methodology for calculating the AETR

The methodology for estimating average effective tax rates (AETRs) has been developed by Devereux and Griffith.⁷ We present here only the final formulas for the calculations; please see the original publication for the detailed methodology notes.

The AETR is calculated as:

$$AETR = \frac{p - r}{P} - \frac{\gamma(1+r)(p + \delta)(1 + \pi)(1 - \tau)}{p(1 + \rho)} + \frac{\gamma(1+A)(1+r)}{p} \left(1 - \frac{(1 - \delta)(1 + \pi)}{1 + \rho}\right) - \frac{F(1+r)}{P}$$

with the variables and their definitions as presented below:

Variables	Definition
p	pre-tax net profit
r	real interest rate
$\gamma = (1 - m^d) / (1 - z)$	factor measuring the difference in treatment of new equity and distributions
m^d	personal tax on dividends
z	tax on capital gains
$\rho = (1 - m^i) i$	investor's discount rate
m^i	personal tax rate on interest

7. See Devereux, Michael P. and Rachel Griffith (2003), "Evaluating Tax Policy for Location Decisions", CEPR Discussion Paper Series, No. 3 247, Centre for Economic Policy Research.

i	nominal interest rate	
τ	corporate tax rate	
δ	economic depreciation rate	
π	inflation	
A	present discounted value of depreciation allowances, which can be calculated for any depreciation scheme.	
	$A = \tau\phi \frac{1 + \rho}{\rho + \phi}$	for declining balance depreciation
	$A = \frac{\tau\phi(1 + \rho)}{\rho} \left(1 - \left(\frac{1}{1 + \rho}\right)^{1/\rho}\right)$	in case of straight-line depreciation
ϕ	depreciation allowance	
F	Financial effects	
	$F = 0$	in case of financing by retained earnings
	$F^{NE} = \frac{-\rho(1 - \gamma)}{1 + \rho} (1 - \phi\tau)$	in case of financing by new equity
	$F^D = \frac{\gamma(1 - \phi\tau)}{1 + \rho} (\rho - i(1 - \tau))$	in case of financing by debt