

CHAPTER III

THE IMPACT OF A GLOBAL MINIMUM TAX ON FDI



INTRODUCTION

International investment and tax policies are inextricably linked. Tax influences the attractiveness of a location for international investors. Taxation, tax relief and other fiscal incentives are key policy tools to attract investors. Investors, once established, add to the economic activity and the tax base of host economies and make direct and indirect fiscal contributions. And international investors and multinational enterprises (MNEs), by the nature of their international operations, have opportunities for tax arbitrage between countries and for tax avoidance. This last issue has been the subject of intense debate over the past decade.

In 2013, the Organisation for Economic Co-operation and Development (OECD) and the G20 countries adopted the 15-point Action Plan on Base Erosion and Profit Shifting, commonly referred to as BEPS. Other organizations have also been active in promoting the reform of the international corporate tax system, including, most notably, the United Nations Committee of Experts on International Cooperation in Tax Matters (which has a particular focus on securing the interests of developing countries). The goal of the BEPS project was to curb the tax avoidance practices of MNEs and to make the international tax system fairer. Historically, policy coordination on international taxation has been rare, but the BEPS project is an exception. To date, 141 jurisdictions, including many developing countries, have joined the initiative through the OECD-led Inclusive Framework. In 2015 the BEPS project delivered a comprehensive package of 14 actions aimed at tackling tax avoidance, improving the coherence of international tax rules and ensuring a more transparent tax environment. That left one action to be completed: the taxation of the digital economy.

This has been the central focus of the BEPS project since then. Digitalization has caused a rapid increase in the share of intangibles in international trade and investment, with a corresponding increase in opportunities for MNEs to disconnect profits from real economic activities and to shift them to low-tax locations. To restore the nexus between where value added activities take place and where profits are taxed, BEPS participants reached agreement in 2020 to work on a two-pillar approach.

Pillar I aims to realign the reporting of MNE profits with value creation. It has three core elements. The first partly reallocates the right to tax the largest and most profitable MNEs towards “market” (or “destination”) countries where they sell goods and services. The second simplifies the transfer pricing of distribution activities. The last element introduces mechanisms to tackle tax disputes.

Pillar II proposes a global minimum tax on the profits of MNEs. It applies to multinational groups with revenues of €750 million or more. Pillar II rules follow a “common approach”, which means that the Inclusive Framework members adopt the rules on a voluntary basis. The OECD published model rules for Pillar II rules in March 2022, along with technical commentary and concrete examples of how to apply the Global Anti-Base Erosion (GloBE) model rules (OECD, 2022b). The goal is to start implementation in 2023.

The global minimum corporate income tax (CIT) is a major step in international tax regulation and coordination. Whereas the two-pillar proposal arose to address tax issues caused by digitalization, the scope of Pillar II is now much broader and involves fundamental changes to the international tax architecture. It not only aims to reduce profit shifting by MNEs,

improve the fairness of tax systems and increase revenue collection. It also aims to reduce damaging tax competition between countries and to set a limit to the race to the bottom in CIT rates caused by countries competing to attract foreign direct investment (FDI).

From an investment perspective, the relevance of Pillars I and II differs substantially. Pillar I is designed to reduce profit shifting and lead to a fairer distribution of tax revenues, but it is not expected to affect real investment decisions to any significant degree. It will affect only the largest MNEs; these include many digital firms, which are asset-light in their international operations, and new tax liabilities will arise only above a defined profitability threshold. In contrast, because it introduces a global minimum tax, which could affect the locational choices of investors, Pillar II could have far-reaching consequences for FDI recipient countries and especially for those that compete to attract inward FDI through fiscal measures.

The OECD acknowledges the potential implications for investment, addressing them in a dedicated chapter of its Economic Impact Assessment (EIA). Yet, the EIA considers the overall effect of BEPS measures on investment to be small (box III.1). The EIA confirms the greater relevance of Pillar II, which generates all the impact, while Pillar I is substantially investment neutral. The focus of the economic and policy debate has thus been largely on the impact on tax revenues and on the overall tax bill for MNEs, with comparatively little attention paid to the effects on countries' ability to attract investment.

Box III.1. Assessments of the investment impact of Pillar II

The OECD Economic Impact Assessment (EIA) (OECD, 2020) extensively evaluates the reforms of Pillar I and Pillar II and quantifies their potential impact on international investment. The assessment brings together two sets of analyses. One, based on Hanappi and Gonzalez Cabral (2020), estimates the increase in tax rates from the reform; the other, based on Millot et al. (2020), links changes in tax rates to changes in investment.

In the first study, the authors follow the classic effective tax rate (ETR) framework of Devereux and Griffith (2003), described in more detail in the next section. They assume a stylized investment and work out the after-tax profits, deriving also the average and the marginal effective tax rate (AETR and METR) as well as the overall cost of investment, under different assumptions. The authors find that Pillar I and Pillar II do not substantially increase the AETR or METR in general, but they substantially increase them in offshore financial centres (OFCs). The overall expected impact on investment is limited. The second study performs a firm-level analysis based on ORBIS data, using 26,000 distinct MNE affiliates located in 17 mostly European countries. The analysis shows a negative relationship between METR and investment. The tax sensitivity of investment is higher in groups with low profitability.

Using the results from the two studies, the EIA finds that the reform will have only a small negative effect on global investment because the tax proposals target mainly large MNEs that are less sensitive to changes in tax levels. The average global change in the AETR is projected to be only about 0.5 percentage points, with a corresponding change in METRs of 1.85 percentage points. The total business investment rate (including by firms other than MNEs) would fall by 0.05 percentage points.

Beyond specific methodological choices, such as the use of forward-looking ETRs, two modelling assumptions in these analyses are worth specific mention. The most critical one is the focus on investment carried out in the country of the ultimate parent of the MNE group ("at home") rather than in any of the foreign locations where the MNE has operations. As highlighted by the OECD, this approach prioritizes a group-level perspective (what is the investment impact of BEPS for the MNE group?) rather than a project- or FDI-level perspective (what is the impact of BEPS on foreign investment by the MNE, i.e. on FDI?).

The second important assumption is that Pillar II, at least for the purpose of the investment impact assessment, is assumed not to change the profit-shifting behaviour of MNEs. All other things equal, this implies that increased costs for the MNE group due to an expected reduction in profit shifting as a result of Pillar II are not incorporated in the assessment of the investment impact. It is important to observe that both assumptions result in a smaller investment impact than otherwise.

The EIA further argues that the decline in investment following BEPS resulting from higher tax rates is likely to be offset by the positive effect from other less quantifiable but significant channels, such as increased tax certainty. It identifies six policy areas in which the response of individual governments to the changes in the international tax system could have important effects on investment: (i) greater fiscal space, (ii) lower compliance costs for firms given uniform rules, (iii) a reduction in tax competition, (iv) greater use of non-tax incentives by countries and policies encouraging innovation, (v) more efficient use of tax incentives and better allocation of capital, and (vi) more beneficial competition between firms, including a level playing field among MNEs and non-MNEs.

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The EIA has the merit that it acknowledges the importance of incorporating the investment dimension in the overall assessment of the economic impact of BEPS, together with the revenue dimension. It is the only study to date to embark fully on the challenging task of modelling the investment impact of a global minimum tax. A few other studies have addressed specific aspects of the investment impact of Pillar II. Bares et al. (forthcoming) examine the effect for a subset of countries. Devereux et al. (2020) use a stylized two-country scenario to look at the effects on AETRs as a result of the interaction between the introduction of a global minimum tax and changes in profit-shifting patterns. Bauer (2020) raises the issue of the impact of Pillar II on investment in small, highly integrated economies.

Apart from the EIA and these three studies there has been no other attempt to systematically analyse the investment impact of BEPS measures. This follows a trend across all BEPS-related studies – even prior to the introduction of the two pillars – in which the analysis of the revenue impact has been largely dominant (see Cobham et al., 2022). The investment dimension has been much less explored, with the *World Investment Report 2015 (WIR15)* remaining the main reference on the interface between international investment and BEPS.

Source: UNCTAD; Casella and Souillard (2022).

The EIA's assessment of the implications of Pillar II for the overall tax bill of MNEs at the group level is helpful for gauging the impact on global investment flows – and the results have been reassuring. Nevertheless, where those taxes are due and what resulting tax rates are paid by foreign affiliates in individual countries (i.e. at the FDI level) are both likely to be highly significant for the ability of those countries to attract and retain investment. In addition, because tax rates and fiscal incentives are important investment promotion instruments, a minimum tax is bound to necessitate major adjustments to countries' investment policy toolkits.

In recognition of the important role of FDI for development, the role of tax as an FDI determinant and the extensive use of tax policies to attract FDI, this chapter aims to investigate more fully the impact of the introduction of a global minimum tax on investment and investment policies. It does so with a particular focus on developing countries, not only as tax collectors but also, and especially, as investment recipients.

The chapter is structured as follows:

- Section A explains the mechanics of the Pillar II proposals and provides a framework for the analysis of their effect on FDI.
- Section B provides a quantitative assessment of the impact on effective tax rates (ETRs) faced by foreign affiliates and of the possible changes in the volume and distribution of FDI.
- Section C discusses the implications of minimum taxation for tax incentives to attract foreign investment.
- Section D brings together the findings in a set of policy options for countries that depend on their current tax positioning and on their use of preferential schemes for investors.

The BEPS reforms represent a rare and remarkable achievement of economic multilateralism in recent years. The two pillars are a synthesis of almost a decade of efforts to tackle international tax avoidance and profit shifting – a key priority for most countries and for the international community. The objective of this chapter is not to question the proposed solutions but rather to analyse their impact on FDI and their implications for investment policy. The aim is to help investment policymakers, and especially those from developing countries, to identify the most effective investment policy responses.

A. HOW A MINIMUM TAX AFFECTS FDI – A THEORETICAL FRAMEWORK

This section reviews key elements of the theoretical foundations of the links between tax and investment, focusing on the level and location of investment, on the role of profit shifting and on tax competition. The theory is instrumental to understanding spillover channels and directional impacts of the Pillar II tax reform on FDI.

1. Tax-investment spillover channels

In a global economy characterized by internationally mobile capital, corporate tax policies can affect multiple aspects of the global investment landscape: where a given investment flows (location of investment), how much is invested (scale of investment), how much taxes are paid on the income generated by the investment and where they are paid (profit shifting), and how countries compete in designing their tax systems so as to attract investment (tax competition) (table III.1).

Table III.1. Tax-investment spillover channels	
a. Location of investment	<ul style="list-style-type: none"> • Tax affects investor choices between different locations. If investments are equally profitable in different locations, investors will choose the location where taxes are lowest. • Even if the profitability of investments differs between locations, investors may still locate in the lower-profitability location if the tax rate differential is sufficiently high. This is the distortionary effect of tax on investment allocation. • A key concept in assessing the location effect of tax is the average effective tax rate (AETR), which is used in cross-country comparisons of the tax cost of investments, and hence a key factor in the analysis of the impact of Pillar II.
b. Scale of investment	<ul style="list-style-type: none"> • Taxing the income (return) on an investment affects how much an investor will commit. That is because tax will increase the amount of profit that the investment needs to generate in order to provide the minimum after-tax return that the investor requires. • An important concept in assessing the impact of tax on investment scale is the marginal effective tax rate (METR), which represents the amount by which, because of taxation, the pre-tax return on a project exceeds the investor's required after-tax return. • It is possible to devise tax rules to minimize the METR (and hence the size-impact of tax on investment decisions), while still raising revenues.
c. Profit shifting	<ul style="list-style-type: none"> • If profits generated by an investment in one location are declared for tax purposes in another (lower tax) location, the average tax rate for those profits becomes a weighted average of those in the countries involved; the overall AETR will thus be lower than the AETR in the country where the investment is located. • Because the possibility to shift profits generated by an additional investment to a lower-tax country reduces the tax payable on the additional earnings, it also reduces the METR, potentially increasing the scale of investment. • Profit shifting thus affects both the scale and location of investment. The goal for BEPS is therefore to tackle profit shifting while minimizing the potential negative effects on investment.
d. Tax competition	<ul style="list-style-type: none"> • A key objective of the global minimum tax is to set a limit on the downward tax competition between countries for the attraction of real investment and tax base. • Tax competition can take many forms. It is not only about the generally applicable tax regime, but also occurs through tax incentives such as reduced rates, allowances for investment or R&D spending, or special economic zones. Incentives have proliferated over the last few decades. • Because preferential tax schemes in one country can harm others, there is a strong rationale for collective action to limit tax competition.

Source: UNCTAD.

a. Location of investment

At the heart of tax effects on FDI are those affecting the location decision: in which country to invest. For an MNE that simply has to choose where to undertake an investment of some fixed scale, what matters is the proportion of the pre-tax profit it generates that each country will take in tax. This is known as the *average effective tax rate* (AETR). If the investment is equally profitable wherever it is located, then the MNE will locate it wherever the AETR is lowest. Even if the project is less profitable in one country than another – perhaps because it is harder to find the necessary labour skills there or because the public infrastructure is less supportive – it may nonetheless locate the project there if the AETR is sufficiently low.

The consequence is that cross-country differences in AETRs can distort location decisions, leading to investments being undertaken in places where their pre-tax profitability is actually lower. An efficient cross-country allocation thus calls for minimal differences in AETRs – especially for efficiency-seeking investments which are relatively mobile, in the sense that their pre-tax profitability does not inherently vary greatly across locations. (For location-bound market- and resource-seeking investments, the AETR matters less.)

In terms of practical measurement, the AETR depends not only on the statutory rate of tax but also on the nature of the tax base.¹ Additional investment will, for instance, generate additional depreciation or other tax allowances. The AETR can be calculated in two ways. One, the forward-looking approach, rests on calculating the tax due on a hypothetical project of some assumed pre-tax profitability. This has the advantage of being readily recalculated to assess the effects of tax changes, but it rests on untested assumptions and abstracts from many complications of the tax rules. The alternative, backward-looking approach rests instead on taxes actually paid. This is less well suited to mechanical simulation of tax changes but has the merit of being rooted in experience rather than simplification and hypotheticals. As discussed in detail in section B, it is the backward-looking approach that is adopted in the empirical work of this chapter.

b. Scale of investment

When considering a possible location, the investor must also decide on the scale of the investment. Taxation matters here too. To maximize earnings, investors will invest up to the point at which the additional profit, net of the additional tax that becomes due, just covers the return they require. If, for example, the net profit exceeds the required return, then the investor has an incentive to invest more, likely leading to a reduced pre-tax return – a process that continues until the post-tax return generates just enough to make the last investment worthwhile. Taxation thus affects the scale of investment by driving a wedge between the pre-tax return on an investment that just breaks even and the after-tax return received by the investor. That wedge is the *marginal effective tax rate* (METR).²

From a policy perspective, the neutrality criterion for good tax design – that the tax system insofar as possible does not distort private decisions but leave them as they would be in the absence of the tax (unless there is good reason to do otherwise, e.g. to limit pollution) – calls for an METR as close to zero as possible. It is important to balance average and marginal considerations in setting tax policies. It is possible to have a low and even a zero METR while still having a positive and possibly quite high AETR. This is because the METR reflects only the tax paid on the last dollar of investment that breaks even, whereas the AETR reflects the tax paid on all the profit generated by the totality of investment.

Take, for example, a “cash flow” form of CIT, under which all investment expenditure is immediately deductible. The government is then in effect a silent partner in all investments: it takes a fixed share in the returns as tax revenue, but it also bears the same fixed share of costs (as reduced tax revenue). The tax leaves investors worse off, but they will still find any investment that covers its costs to be worth undertaking, so the METR is zero.³ But the AETR is positive because the government is sharing in the excess of earnings over costs. This is one instance of the more general point that a tax which bears only on “rents” – meaning earnings in excess of the minimum required – will have no impact on investment decisions. Intuitively, faced with giving up some fixed share of the pie, investors still want the pie to be as large as possible. And that remains so, however large is the government’s share; however high, that is, is the rate at which rents are taxed. Indeed, since a tax on corporate rents does not distort private decisions – something that is not true of other standard tax instruments, such as personal income tax or value added tax – structuring the corporate tax to bear on rents has had considerable appeal for economists, with some impact on practical design of taxes.⁴

In practice, of course investors must choose both the location of their investments and their scale, so that both the AETR and the METR come into play. For the location choice, the comparison of AETRs is critical, whereas for the scale decision the local METR is key.⁵ The ideal of tax policy, as just seen, is to combine a low METR with a high enough AETR to meet revenue needs. The primary (though not exclusive) focus of the BEPS project has been on how much tax MNEs pay and where (broadly corresponding to the pattern of ETRs) rather than on the impact on marginal incentives to invest (captured by an appropriate METR). It is thus the impact on the level and the cross-country dispersion of AETRs that is central to the empirical analysis in this chapter.

c. Profit shifting

By profit shifting is meant the use of artificial transactions and arrangements to shift tax base from higher- to lower-tax countries. MNEs have plenty of instruments they can use to this end: setting artificially high or low internal transfer prices, borrowing from related entities in low-tax countries, using treaty networks to repatriate earnings in tax-minimizing ways (treaty shopping) and many others (for an overview of these techniques, see IMF, 2014). A core focus of the BEPS project has been on making such avoidance harder.

Profit shifting has potentially significant effects on both the location and the scale of investments. For the location choice, profit shifting has the important implication that since the profit generated by an investment in one location may be shifted and declared for tax purposes in others, the total tax paid on those profits – and hence the overall average ETR – depends on where those profits are declared for tax purposes and how they are treated there. The overall AETR on an investment then becomes a weighted average of the AETRs across all countries in which some of the related profits are declared, the weights reflecting the amount of profit shifted. This is captured in the empirical work in this chapter by a new ETR metric, the *FDI-level [average] ETR* (this metric will be presented in detail in the empirical section B, box III.5). As the purpose of profit shifting is to reduce total taxes paid, this FDI-level ETR can be expected to be lower than the AETR for the country in which the investment is located. All else equal, investors will locate an investment in the country that offers the lowest FDI-level ETR. In assessing the effect of a minimum tax on the cost of locating investment in any country, it is the impact relative to the FDI-level ETR that is relevant.

As the ability to shift the profits generated by an additional investment in a high-tax country to a lower-tax country reduces the tax payable on those additional earnings, it also reduces the METR. Profit shifting can thus be expected to increase the scale of investment in

such countries. To the extent, moreover, that substance tests and business realities make it easier to shift profits to low-tax countries if the MNE has some physical presence there, profit-shifting opportunities reduce the METR there, too.

There is extensive empirical evidence that profit shifting is indeed sizeable (for an overview, see Bradbury et al., 2018). Tørslov et al. (2021) estimate that MNEs shifted about 40 per cent of their profits to offshore financial centres (an estimate generally seen as on the high side). In terms of revenues, Clausing (2020) puts the loss for the United States alone in 2017 at about one third of corporate tax revenue. Importantly, there is some consensus that whereas the revenue lost by developing countries from profit shifting is likely to be smaller in dollar terms than it is for developed economies, relative to their gross domestic product and tax revenue it is likely to be greater (e.g. Crivelli et al., 2016; Johannesen et al., 2020). Particularly relevant to the discussion in this chapter is the connection between profit shifting by MNEs and FDI. The large share of FDI stock – between 30 and 40 per cent of the total – reported by few, relatively small, offshore financial centres (OFCs) attests to the important role of FDI in the tax optimization strategies of MNEs (*WIR15*; Bolwijn et al., 2018; Casella, 2019; Damgaard et al., 2019). UNCTAD (*WIR15*; Bolwijn et al., 2018) estimates the tax revenue losses for recipient countries from exposure to FDI through OFCs to be on the order of \$200 billion globally, evenly distributed between developed and developing economies (see also Janský and Palanský, 2019; Guvenen et al., 2022).

d. Tax competition

A primary rationale for the minimum taxation that Pillar II will establish is to set a limit to the downward tax competition that arises from governments' efforts to attract (or retain) real investment and tax base by offering favourable tax treatment relative to that available elsewhere. Empirical evidence confirms a marked (but perhaps recently decelerating) downward trend – in all parts of the world – in statutory rates of corporation tax. Since cross-country differences in these headline rates are the primary driver of profit shifting, that would be consistent with governments acting to increase (or protect) their tax base by tilting those differences in their favour.

But tax competition, especially for real investment, is not only about the generally applicable business tax regime. Countries may, and in many cases do, offer preferentially favourable tax treatment for particular sectors, activities or regions. Such “tax incentives” may take the form, for instance, of a reduced tax rate (the extreme form being a tax holiday, which provides a zero rate for some specific period of time) and/or a narrowing of the tax base, such as accelerated depreciation for investment or enhanced deductions for R&D spending. Special economic zones (SEZs), which generally offer some kind of favourable tax treatment, are another prominent example. Incentives intended to lower effective tax rates have proliferated in the last decade (see chapter II, section C).⁶ This is another strong indicator of intense tax competition at work.⁷

It is difficult to be precise about the intensity of international tax competition. It might in principle be that the trends in headline rates and incentives reflect not cross-border interactions in tax setting but, for example, common intellectual or political developments favourable to lower business taxes. And it might in principle also be that, as discussed further in section D, countries respond to lower taxation abroad, all else equal, not by reducing their own rates (“strategic complementarity”) but by raising them (“strategic substitutability”). Economists have found it hard to identify these interactions in countries' tax-setting behaviour. For statutory rates, there are signs of the strategic complementarity that the trends mentioned suggest, with studies showing a 1 point cut in the corporate tax rate in all other countries inducing a cut in response of 0.25 to 0.67 points.⁸

The policy problem caused by tax competition, for which minimum taxation may serve as a partial remedy, is that in choosing the tax system best suited to a country's own interests, each country neglects the potential harm the choice does to others. A country may benefit from attracting inward profit shifting, for example, but this is damaging others, which are left with a reduced tax base. These kinds of interaction create scope for collective gain by coordinating tax policies in ways that limit the downward spiral that can result,⁹ such as by setting a floor on how low taxes can go – as Pillar II aims to do. This is not to say that all countries stand to benefit from limiting tax competition. Some low-tax countries are likely to lose.

2. The mechanics of Pillar II

The two core objectives of Pillar II, reducing the scope for profit shifting (thereby aligning the payment of tax more closely with the location of productive activities) and limiting tax competition, are closely related but nonetheless distinct. Conceptually, at least, measures could be undertaken to inhibit profit shifting without limiting tax competition for real investment.¹⁰ Views differ, moreover, as to the relative importance of these objectives, leading to a degree of compromise that is reflected in the structure of Pillar II.

A further objective sometimes referred to is reducing the importance of tax considerations in determining the location of investment. These considerations are likely to be greater the wider is the cross-country dispersion of AETRs, so that this objective translates to reducing that dispersion – with the relevant notion of AETR here being, for the reasons described in the previous section, the FDI-level ETR. Location, however, is only one aspect of efficiency in patterns of investment. Scale also matters, and therefore so too does the impact on METRs. The impact of the minimum tax on this dimension has received less attention in the design of Pillar II.

The structure of Pillar II is more complex than the headline feature of establishing a minimum effective rate of 15 per cent may sound. Broadly, the idea is to top up domestic taxes, if need be, to ensure that in each country the affiliates of large MNEs pay an amount of tax that is equal to at least 15 per cent, not of their profits but rather of those profits that exceed an amount – known as the *carve-out* – that is related to indicators of their real activities in the country. Reflecting differing views as to the purpose of Pillar II, the carve-out tempers the desire to limit tax competition by limiting the extent to which the minimum bears on real activity. The implication is that the total tax payable by an affiliate that is subject to the minimum will not be 15 per cent but lower, to an extent that depends on the amount carved out and the domestic taxes covered by the agreement (primarily corporation tax) payable before the top-up applies.

Implementing this minimum effective tax rate – under what is referred to more formally as the Global Anti-Base Erosion (GloBE) rules – requires four steps:¹¹

- (i) Establish whether a foreign affiliate is *in scope* for Pillar II, which requires that it be part of a multinational group with revenues of at least €750 million. This brings in only the largest MNEs, though these account for about two thirds of FDI projects worldwide. Moreover, it is widely expected that the threshold will fall over time.
- (ii) For an in-scope entity, calculate its¹² *GloBE ETR* (or *GloBE ratio*), broadly defined as the ratio of *covered taxes* to accounting profit, these taxes being essentially any that are charged on income, most prominently the CIT. Potentially important for many developing countries is that resource rent taxes will be covered, but taxes related to turnover – such as royalties or the turnover-based minimum taxes that many levy – may well not be, nor are withholding taxes (WHT) on payments made by the entity.

(iii) If the ETR thus calculated is less than 15 per cent, apply a *top-up tax*, at a rate equal to the excess of 15 per cent over the ETR. The base to which that top-up tax will be applied is *excess profit*, calculated as the amount by which accounting profit exceeds a carve-out that is calculated as specified percentages (declining over time) of tangible assets (including natural resources) and payroll.¹³ The carve-out is formally called the *Substance-Based Income Exclusion*.

From the perspective of the investor, total tax payable on an in-scope entity is the sum of covered taxes and any top-up calculated following these steps. The overall liability when the top-up applies, which emerges from the algebra of these arrangements (box III.2), is readily seen to be equivalent to the sum of (1) 15 per cent of excess profit (accounting profit less the carve-out), and (2) tax at the ETR on the amount carved out. One further implication of this will be helpful below. The lowest value that covered taxes can take is zero,¹⁴ so that element (2) above is zero and only element (1) remains. There is thus generally no way in which the entity's tax liability can be reduced below 15 percent of excess profit: this can thus be thought of as an "absolute minimum" on its liability.

Box III.3 provides an example of these calculations. It also illustrates another important aspect of Pillar II: because of the operation of the carve-out (this amount being in effect taxed at the ETR rather than the higher minimum rate), the overall average tax rate – taking into account both the top-up and the covered taxes – is less than the 15 per cent minimum.

(iv) Having calculated the top-up, the question arises of which country will collect it: the host country in which the income arises, or the country in which the parent company is resident for tax purposes? *For investors, which government collects the top-up tax is immaterial (compliance issues aside), because the amount payable is the same.* For governments, however, it matters a good deal. The ultimate parent of a multinational group may levy the top-up under the *Income Inclusion Rule* (IIR).¹⁵ If it does not, the source country may do so under an *undertaxed payment rule*.

Box III.2 The algebra of Pillar II

Denoting the total of covered domestic taxes by T and accounting profit by P , a top-up tax will be levied to the extent that the relevant effective tax rate (also referred to as the GloBE ratio) T/P is below the prescribed minimum rate, denoted by m (which is in practice 15 per cent). This top-up is applied only to financial profit in excess of carve-out C . The total tax payable, T^* , is then

$$T^* = \left(m - \frac{T}{P}\right)(P - C) + T$$

where the first term is the top-up and the second is covered tax payments. The impact of these arrangements becomes clearer on rewriting this equation as

$$T^* = m(P - C) + \frac{T}{P} * C$$

The effect is thus that total tax – domestic and top-up combined – is the sum of (1) tax at the minimum rate m on excess profit $P - C$ and (2) tax at the effective tax rate T/P on the amount carved out.

Expressed relative to accounting profit, total tax payable is thus

$$\frac{T^*}{P} = m - \left(m - \frac{T}{P}\right) \frac{C}{P}$$

Hence the average rate is lower than the minimum rate and is more so the lower are the covered tax payments and the higher is the carved-out amount as a share of financial profit. That average rate, nonetheless, is higher than it would be in the absence of Pillar II.

Source: UNCTAD.

Note: The notation here follows Devereux et al. (2022) and sets aside a number of complications that can arise in practice (for example, in the treatment of losses and accelerated depreciation, discussed in section C).

Box III.3. The GloBE rules of Pillar II: an example

An in-scope affiliate has accounting profit of 1,000 and pays covered taxes of 110. Its ETR is thus 11 per cent. Top-up tax is therefore due on excess profit at a rate of 4 ($= 15 - 11$) per cent.

The carve-out is calculated by applying (at 2023 rates) 10 per cent of the value of the affiliate's payroll (of 200, say) and 8 per cent of the value of its tangible assets (of 4,125, say), for a total carve-out of 350. Excess profit is thus 650 ($= 1,000 - 350$).

Applying the 4 per cent to the excess profit of 650 gives a top-up tax liability of 26.

In total, the entity is thus liable for taxes of 136: top-up of 26 plus covered taxes of 110. As shown in box III.2, this can alternatively be calculated as the sum of (a) a tax at 15 per cent on excess profit, 97.5 ($= 0.15 \times (1,000 - 350)$) and (b) a tax at the ETR on the carve-out, 38.5 ($= 0.11 \times 350$).

Overall, the average tax rate paid by the affiliate – top-up and covered taxes combined – is 13.6 per cent ($= 136/1,000$).

Source: UNCTAD.

In any case – and as a late addition to the development of Pillar II – the source country may charge a *qualified domestic minimum top-up tax* (QDMTT): this is a domestic tax that is structured to achieve exactly the same effect as an IIR, which will be fully creditable against any IIR. The effect, simply put, is that the QDMTT enables the host country to do the topping up.

Even this description, complex though it is, abstracts from a range of issues likely to be important in particular contexts.¹⁶ These include, in particular, the prospective adoption by multilateral treaty of a *Subject to Tax Rule* (STTR), enabling WHT to be topped up to 9 per cent (in order to limit outward profit shifting).¹⁷ There are also mechanisms related to specific forms of incentive. These additional features of the Pillar II arrangements will be addressed later (see section C).¹⁸

3. Pillar II and FDI

a. Primary targets: profit shifting and tax competition

A primary rationale for minimum taxation is to counter the artificial shifting of profits to low-tax countries. In practice, Pillar II is likely to mute profit shifting but not eliminate it: while it may no longer be possible to shift profits from a country in which the rate is 25 per cent to one in which it is 10 per cent, there is still a gain – smaller, but a gain nonetheless – from shifting to a 15 per cent one.

The possibility also remains of shifting profits between countries that are not directly constrained by the minimum. These options are unaffected by Pillar II but may become relatively more attractive as the route to a rate of less than 15 per cent is closed. With a generalized narrowing of rate differentials, the total amount of profit shifting from high-tax countries can nonetheless be expected to fall significantly – and so too will the overall benefit that multinationals derive from it. This effect is likely to be made more marked by the apparent tendency for profit shifting to increase at a rate greater than in proportion to such differentials (Dowd et al., 2017).

The setting of a floor on effective tax rates on excess profits inherently limits the downward potential for international tax competition. Higher-tax countries may also set tax rates higher than otherwise, a possibility examined further in section D. Moreover, raising the lowest AETRs is likely to ease distortions in the cross-border allocation of real investment, a further objective of Pillar II.

b. Spillover effects: investment location

In general, there is no location in which total tax payments are likely to fall as a consequence of Pillar II. They may be unaffected, if there is no impact of profit shifting under current arrangements and the GloBE ratio exceeds the minimum 15 per cent. In all other cases, tax liabilities can be expected to rise. In some cases, this may be an indirect effect of Pillar II, through a reduced ability to gain by shifting profits to third countries that are directly affected by the minimum. The largest effect, however, is to be expected in countries that are constrained by Pillar II: the average rate there will rise as a direct consequence of the application of the minimum.

The consequence is clearly to disfavour locating real investment in countries that will be directly affected by the minimum. With a general rise in AETRs, it is conceivable that there is no country in which a particular investment project under consideration can profitably be undertaken. More important, however, is the increased relative attractiveness of locations that are not constrained by the minimum. For example, if prior to Pillar II an MNE could undertake a project either in a country with a tax rate of 25 per cent on profits of 1,000, or in another country with the lower rate of 10 per cent but where profits are only 835, it would receive a net profit of 750 in either case and so would be indifferent as to the location of the project. But if the low tax rate were now raised to 15 per cent, locating in the country with the 25 per cent rate becomes the more attractive possibility. For any given level of investment, adoption of Pillar II may thus lead to reallocation of the investment towards higher-tax countries not directly constrained by the minimum.

c. Spillover effects: investment scale

With a particular location already decided on, the profit-maximizing scale of investment depends on the METR in that location. For countries that are not directly affected by the minimum, the impact is clear: the reduced opportunities for profit shifting increase not only the FDI-level AETR but also the METR, and through exactly the same mechanism. As shown in the next section, which focuses on the impact of Pillar II on FDI-level ETRs – the most directly impactful for decisions on the location of real investment – this means that the magnitude of changes in FDI-level ETRs also provides an indication of the magnitude of changes in the METR.

The situation is more complex for countries that are directly affected by Pillar II. METRs in those countries will rise to the extent that real investments were undertaken there simply to facilitate inward profit shifting. But there are other effects, arising for example from the role of the carve-out. It is even theoretically conceivable that METRs in those countries could actually fall.¹⁹ To the extent, however, that the effects of the minimum are akin to an increase in the STR in these countries, the effect is most likely to be an increase in METR²⁰ – and one that is again likely to be larger the greater is the increase in the AETR.

B. ESTIMATING THE IMPACT OF PILLAR II ON FDI

The empirical analysis in this section aims to quantify the potential impact of Pillar II on FDI. The analytical exercise is performed in three steps:

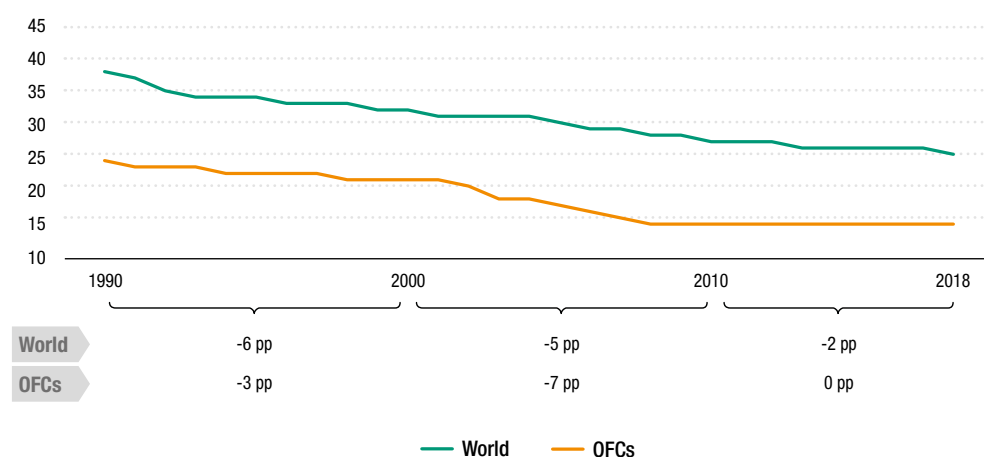
- (i) Section B.1 provides a comprehensive account of current ETRs paid by foreign affiliates and of the underlying profit-shifting dynamics. The two aspects – the host countries’ ETRs and the exposure to profit shifting – are combined in a new synthetic indicator for tax rates, the FDI-level ETR.
- (ii) This indicator is the key analytical input to the quantification in section B.2 of the increase in CIT paid by MNEs on their foreign investment.
- (iii) The increase in FDI-level ETRs is the basis for the estimation in section B.3 of the expected impacts of Pillar II on the volume, distribution and route of global FDI.

1. Corporate income taxes on FDI

a. Statutory tax rates and effective tax rates

Over the two decades around the turn of the century, global STRs declined markedly but gradually, from almost 40 per cent in 1990 to just over 25 per cent in 2010 (figure III.1). A key factor, it is generally accepted, was competition between countries to attract and retain FDI – especially efficiency-seeking FDI – which put significant pressure on governments to decrease corporate tax rates and led to a “race to the bottom” in corporate taxation (Abbas et al., 2012).

Figure III.1. Average statutory corporate income tax rates, 1990–2018
(Per cent)



Source: UNCTAD; Tax Foundation.

Notes: Top statutory corporate income tax rates, simple averages across countries. OFCs = offshore financial centres. World does not include OFCs. The list of OFCs follows that of Torslov et al. (2021). Only countries for which statutory tax rates are available for all years between 1990 and 2018 are included.

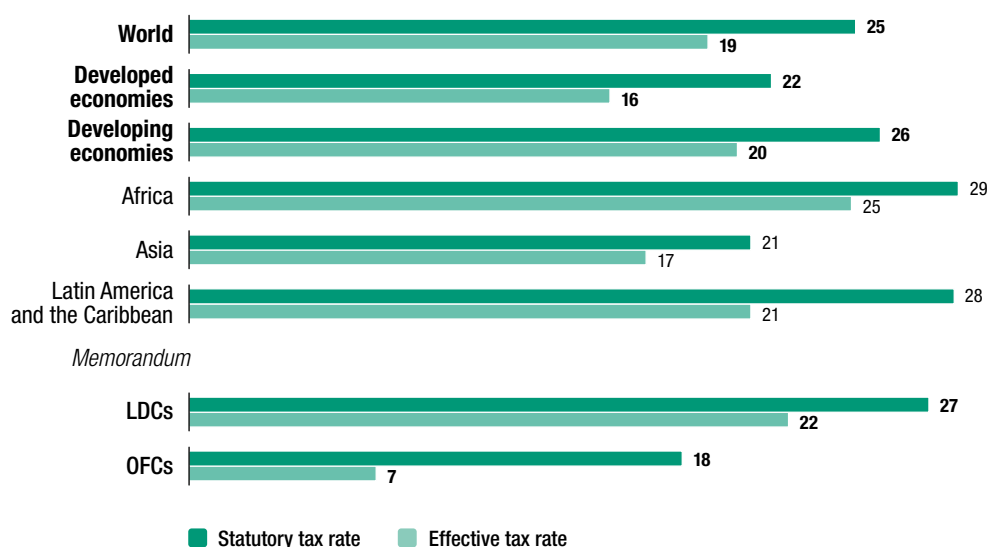
The desire to protect against (or induce) profit shifting no doubt also played a role. In the decade since 2010, STRs have followed a flatter downward trend. This indicates that competition among countries, at least at the level of STRs, has cooled down. However, STR trends do not reflect cross-border competitive dynamics such as tax competition through tax incentives and profit shifting. Offshore financial centres display STRs some 10 percentage points below the global average.

Looking beyond STRs, countries offer fiscal incentives aimed at encouraging some type of investment by reducing corporate tax bills. Tax holidays, exemptions, deductions and credits are some examples (section C). ETRs – defined in the standard way as the ratio between CIT paid and reported profits²¹ – enable accounting for the effects of tax incentives. ETRs from country-by-country reporting (CbCR)²² employed in this chapter are first computed at the country level and then averaged across countries within various groups. The analysis covers 208 host countries, of which 53 are classified as developed and 155 as developing; 39 countries qualify as OFCs.²³ Notably, the perimeter of firms covered by CbCR – including only MNEs with more than €750 million annual revenues – matches the scope of Pillar II. CbCR data place the average ETR paid by foreign affiliates of large MNEs at 19 per cent globally, 6 points below the average STR (figure III.2).

The difference between ETRs and STRs is similar for both developed and developing economies. Generally, across all countries, differences in STRs remain an important factor explaining ETR variation. By contrast, firm nationality (foreign and domestic) and size (foreign affiliates of large MNEs or SMEs) do not appear to affect ETR levels substantially (box III.4).²⁴

OFCs exhibit a remarkably low ETR, at 7 per cent on average, in part due to their lower-than-average STRs (18 per cent) but more importantly to greater resort to fiscal incentives and preferential tax treatments, as hinted at by the large difference between their ETRs and STRs of 11 percentage points.

Figure III.2. Average statutory and effective tax rates of foreign affiliates of large MNEs, by economic grouping and region, 2017 (Per cent)



Source: UNCTAD; Tax Foundation for statutory tax rates and Garcia-Bernardo and Janský (2022) for CbCR-based effective tax rates.
 Note: Simple averages across countries. CbCR = country-by-country reporting, LDCs = least developed countries, OFCs = offshore financial centres.

Statutory tax rates and [average] effective tax rates

It is critical to distinguish between STRs, established by law, and AETRs, reflecting the average rate at which reported profits are effectively taxed. Whether to use one or the other depends on the research question (Bradbury et al., 2018). The empirical analysis in this report is based entirely on AETRs, with the only exception being the historical trend in figure III.1, for which reliable and sufficiently long time series of AETRs are not available. For the purpose of this analysis, AETRs provide a more comprehensive picture of corporate taxation. Unlike STRs, they absorb deductions, exemptions and other tax breaks designed by governments to reduce the tax burden of companies. For BEPS-related analysis, in which aggressive tax practices by OFCs play a critical role, this point is even more relevant as the gap between STRs and AETRs in OFCs is considerable, two times larger than in other countries. Yet, STRs remain an important determinant of variations in ETRs across countries: i.e. countries with higher STRs tend also to have higher ETRs.

Forward-looking and backward-looking effective tax rates

“Forward-looking” and “backward-looking” ETRs both aim to measure effective corporate tax liability but, as touched on in section A, are conceptually and analytically quite different. Forward-looking ETRs are model based, consider a hypothetical investment project and include all corporate taxes due. They are particularly suited for simulating alternative tax regimes. Although abstract by nature and dependent on a number of assumptions (such as on interest rates, profitability and inflation), forward-looking (marginal and average) ETR analyses of corporate taxation and investment have a long-established theoretical tradition (Devereux and Griffith, 2002, 2003). Updated and comparable forward-looking ETRs are reported by the Centre for Business Taxation of Oxford University for 43 countries, limited to OECD and G20 countries (see also Bazel et al. (2018), which reports METRs for 2017 for a larger sample of 92 countries, but also excluding most developing economies).

Backward-looking ETRs do not require assumptions about future scenarios. They are based on the taxes actually paid in a given year relative to the (pre-tax) income generated in that year. They are data based, computed directly from reporting by countries or firms and calculated as the ratio of CIT paid over pre-tax profits. Recent major improvements in the availability and reliability of data on the international activity of multinational groups has given impulse and added credibility to the use of backward-looking ETRs in the analysis of international corporate taxation, particularly in the BEPS context (e.g. Garcia-Bernardo and Janský, 2022).

So far, the (few) analyses on the investment impact of Pillar II have employed both forward-looking ETRs (Hanappi and Gonzalez Cabral, 2020) and backward-looking ETRs (Devereux et al., 2020). The analysis in this report follows the latter approach for two main reasons. First, backward-looking ETRs are more directly comparable with the actual GloBE ratio – the main trigger of Pillar II – as they are based on reported taxes and profits from financial accounts. (They nonetheless differ, because, for instance, of timing differences in the calculation of the GloBE ratio; see section C). Second, forward-looking ETRs are largely not available for developing countries.

Backward-looking effective tax rates based on country-by-country reporting

The construction of an empirically consistent measure of backward-looking ETRs is challenging. Until the introduction of CbCR reporting, the main source for calculating backward-looking ETRs of foreign affiliates was the United States Bureau of Economic Analysis (BEA) database on outward activities of MNEs from that country. The database reports income taxes paid by, and net income accrued to, foreign affiliates of United States-headquartered MNEs in nearly 70 countries, including several developing economies. The ratio between the two variables provides in principle a consistent ETR measure, after some corrections for double counting of equity income (Blouin and Robinson, 2020). Yet, the focus on outward investment from only the United States is clearly problematic. As an alternative, Tørsløv et al. (2021) use national accounts, also available for many countries but encompassing all firms operating in a country, both domestic firms and MNEs. Data from both the BEA and Tørsløv et al. (2021) pool together profit- and loss-making firms, with the result of overestimating ETRs actually faced by firms. Firm-level data have also been used to derive ETRs (Marckle and Shackelford, 2012), but their application in developing economies – particularly in Africa and in Latin America and the Caribbean – is severely limited by poor data availability (Tørsløv et al., 2021).

In this context, the publication of CbCR data as part of BEPS Action 13 has been an information breakthrough. Large MNEs – those with annual revenues over €750 million – are required to prepare reports and give details about their activities in the countries where they operate. The information is then aggregated at the level of the headquarter-host country pair and made publicly available by the OECD. At the time of this analysis (December 2021), data were available for only 2016 and 2017. It is important to note that the reporting was not yet mandatory in 2016, but the data from 2017 used in this report capture all large MNEs from 38 countries that signed the multilateral agreement for the automatic exchange of country-by-country reports.

CbCR reporting is thus very recent and as CbCR practice consolidates, it is expected to improve. Yet, there is little doubt – and a general consensus among experts (Garcia-Bernardo et al., 2021) – that CbCR data are already both richer and more empirically consistent than alternative sources. They cover the largest investors worldwide (almost 40 countries, corresponding to 90 per cent of outward FDI stock globally) and almost all recipient countries (about 200, compared with nearly 50 in Tørsløv et al. (2021) and 70 in the BEA database).

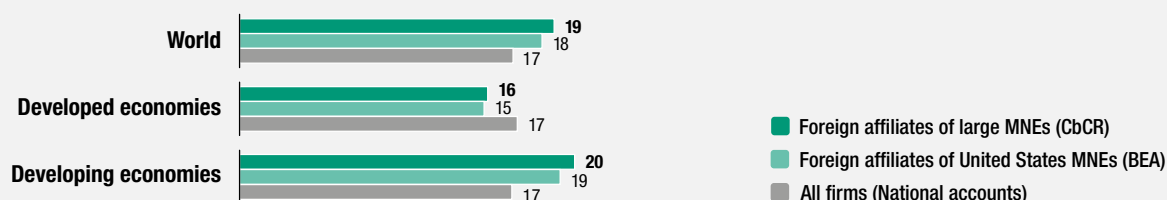
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Box III.4. Metrics of corporate income tax rates (Concluded)

In addition, loss- and profit-making companies are separated, and national companies can be excluded to focus the calculation on foreign affiliates. Furthermore, in the context of the analysis of Pillar II, the CbCR perimeter exactly matches the scope of the tax reform, targeting foreign affiliates of large MNEs. Finally, in the version used in this report from Garcia-Bernardo and Janský (2022) – excluding stateless entities – CbCR data are less prone than BEA data to double counting (although some residual double counting is possible on intracompany dividends, especially for the United States and developed economies in general; see discussions in Clausing (2020), Garcia-Bernardo et al. (2021) and Garcia-Bernardo and Janský (2022)).

For the case of United States MNEs, for which there are reliable comparative data, recent studies (Garcia-Bernardo et al., 2021) provide extensive cross-validation of CbCR-based ETRs, adding significant transparency about their strengths and weaknesses. Box figure III.4.1 compares average backward-looking ETRs based on three different sources. Overall, despite differences in data sources and perimeters – CbCR covering foreign affiliates of large MNEs, BEA covering foreign affiliates of United States MNEs and national accounts covering all firms – results and patterns are aligned, most notably between CbCR and BEA data, as expected.

Box figure III.4.1. Average effective tax rates, by economic grouping, different perimeters and sources, 2017 (Per cent)



Source: UNCTAD; CbCR data based on Garcia-Bernardo and Janský (2022), USDIA BEA database, national accounts data based on Tørsløv et al. (2021).

Note: Simple averages across countries. World and economic groupings do not include OFCs. BEA = Bureau of Economic Analysis, CbCR = country-by-country reporting, ETR = effective tax rate.

Source: UNCTAD, based on Casella and Souillard (2022).

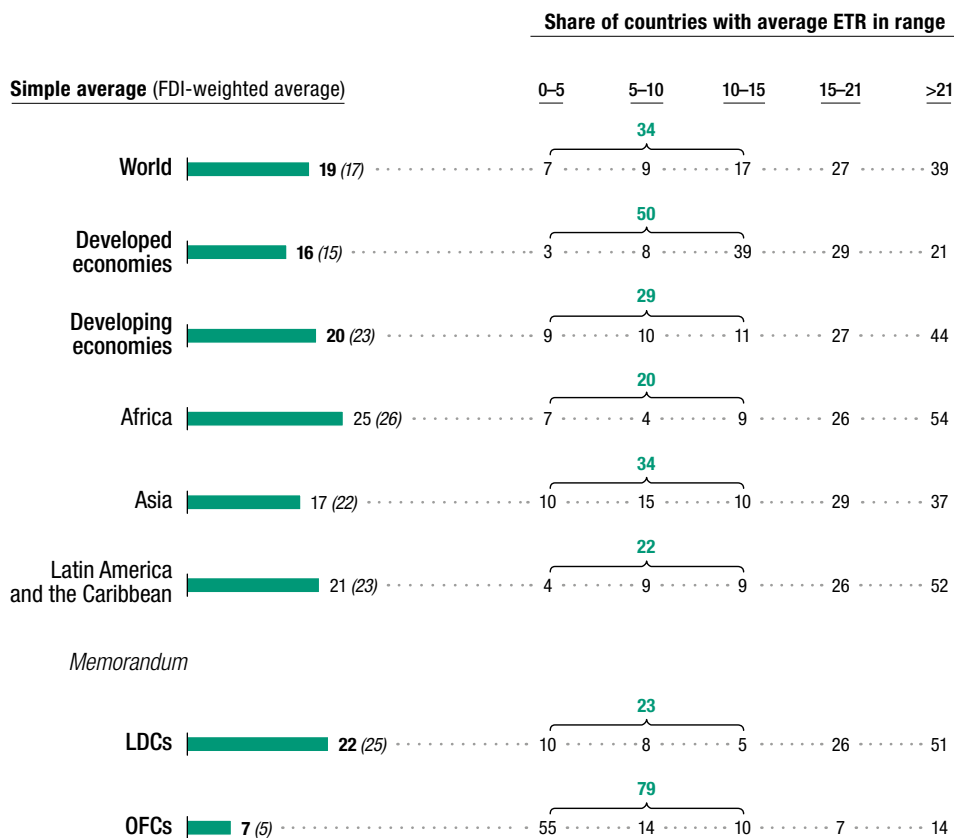
b. ETRs and the global minimum tax

The global average ETR stands at 19 per cent (excluding OFCs). Fewer than a third of developing economies report an average ETR below 15 per cent, with the share increasing to 50 per cent for developed economies. Thus foreign affiliates generally face higher ETRs than the minimum Pillar II rate of 15 per cent and tend to pay higher ETRs in developing economies than they do in developed economies (figure III.3). Among affiliates in developing economies, it is mainly those in small countries that report lower ETRs. As a result, weighting by the size of countries – captured by share of FDI stock – increases the average ETR in developing economies from 20 per cent to 23 per cent.

Developing economies with average ETRs below 15 per cent account for 6 per cent of total inward FDI stock to developing economies (figure III.4), suggesting that the large majority of FDI stock will not be directly affected by the minimum tax rate.²⁵ For comparison, the share of developing countries with an average ETR below 21 per cent – the alternative threshold originally discussed in the context of BEPS negotiations – would be about 55 per cent (double the proportion of those with ETRs below 15 per cent), and corresponding to a sizeable 35 per cent of the FDI stock of developing countries.

Notably, whereas the Pillar II threshold at 15 per cent appears conservative for the levels of taxation in most countries, it is high for OFCs, more than half of which face an average ETR of less than 5 per cent. This is a key consideration when incorporating profit-shifting dynamics into the analysis of ETRs and considering the impact on ETRs of the Pillar II global minimum tax.

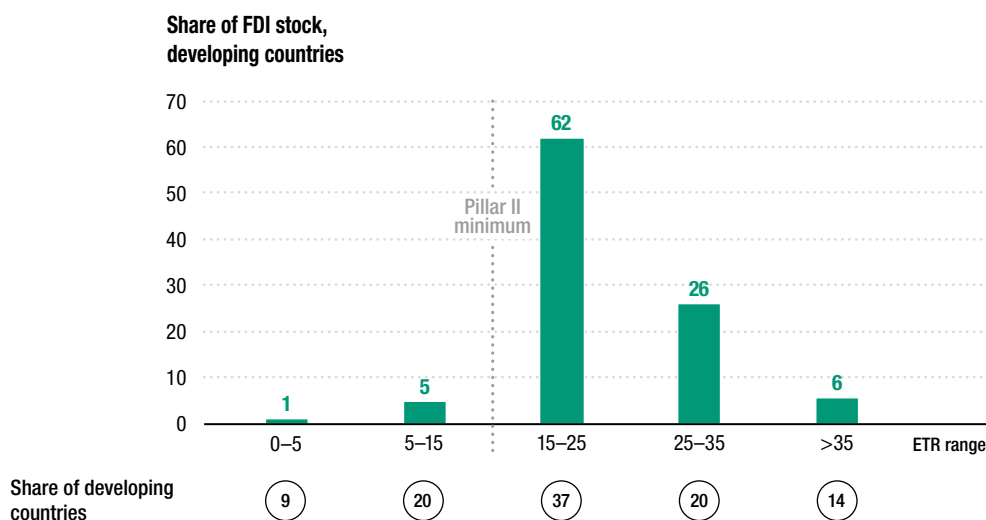
Figure III.3. Distribution of average effective tax rates of foreign affiliates of large MNEs across host countries, 2017 (Per cent)



Source: UNCTAD; CbCR-based ETRs from Garcia-Bernardo and Janský (2022).

Note: World, economic groupings and regions do not include OFCs. CbCR = country-by-country reporting, ETR = effective tax rate, LDCs = least developed countries, OFCs = offshore financial centres.

Figure III.4. Distribution of inward FDI stock by average effective tax rates of foreign affiliates of large MNEs in host countries, developing countries, 2017 (Per cent)



Source: UNCTAD; CbCR-based ETRs from Garcia-Bernardo and Janský (2022).

Note: Developing countries exclude OFCs. CbCR = country-by-country reporting, ETR = effective tax rate.

c. FDI-level ETRs

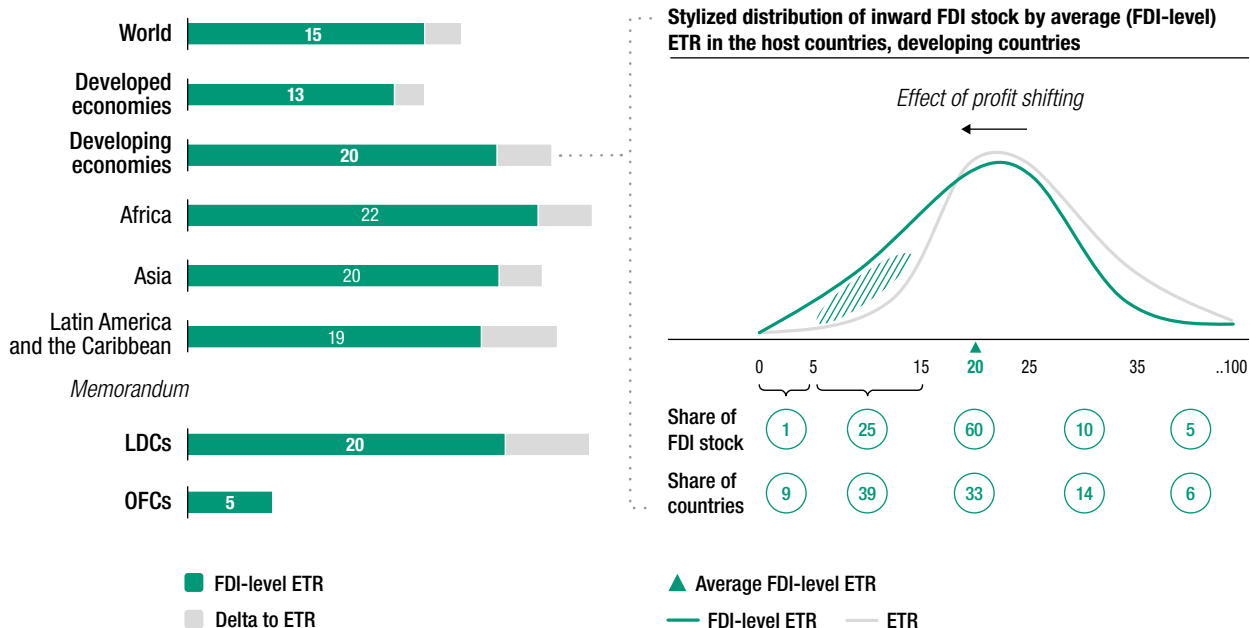
It is important to recognize that ETRs calculated as the ratio of taxes paid in some host country to the profits reported there do not fully reflect the actual tax rates paid on the income generated by the underlying investment. This is because of profit shifting: part of the FDI income created in host countries may well be shifted offshore and subjected to lower ETRs in OFCs.²⁶ ETRs reported in host countries are thus higher than the effective rates ultimately faced by MNEs on income generated by their investments there. A more comprehensive notion of ETR, encompassing all income generated by FDI – including shifted income – is defined here as *FDI-level average ETR*, or simply *FDI-level ETR* for convenience.²⁷

The FDI dimension implies a shift in the analytical focus from the foreign affiliate's country of operations (host country) to the underlying, value-creating FDI project itself. More concretely, for a given host country C, the FDI-level ETR can be defined as the ratio between CIT on the income generated by the FDI stock in country C and the FDI income itself – recognizing, crucially, that those taxes may be paid and income reported in countries other than C itself (box III.5). In the absence of profit shifting, FDI-level ETRs are the same as standard ETRs. The difference between the two depends on the extent of profit shifting – i.e. the share of FDI income shifted to OFCs – and the difference between the ETR in host countries and in the OFCs. With profit shifting estimated to affect between 20 and 40 per cent of MNE profits (*WIR15*; Tørsløv et al., 2021; Garcia-Bernardo and Janský, 2022) and the difference in ETRs between OFCs and other countries larger than 10 percentage points, FDI-level ETRs are on average 2 to 3 percentage points lower than standard ETRs – from 17.3 to 15 per cent at the global level, after weighting by FDI stock (figure III.5, left-hand side).

For developing economies, the difference between standard ETRs and FDI-level ETRs is higher than in developed economies, at 3.4 percentage points (from 23 per cent to 19.6 per cent) against 1.9 points (from 15 per cent to 13.1 per cent). This is consistent with evidence that outward profit shifting is especially marked in developing countries. These differences correspond to a decrease in CIT paid on FDI income of about 15 per cent. This effect can be seen as the CIT “saving” made by MNEs on their foreign profits as a result of profit shifting – and, conversely, the collective revenue loss suffered by governments.

Incorporating profit-shifting dynamics – i.e. switching from the standard ETR view to the FDI-level view – not only decreases the average but also changes the distribution of ETRs (figure III.5, right-hand side). With the new metric, the share of developing countries with tax rates below 15 per cent increases to 48 per cent (from 29 per cent) and the corresponding share of FDI to 26 per cent (from 6 per cent). Given the high concentration of host-country ETRs in the range between 15 and 20 per cent, a shift of even a few percentage points in their distribution has a significant impact on the positioning of countries relative to the Pillar II minimum threshold. In other words, the Pillar II threshold of 15 per cent does not appear as low anymore when assessed from the perspective of FDI-level ETRs rather than that of the standard ETRs (though it is of course the latter to which the Pillar II rules directly apply). The Pillar II minimum rate of 15 per cent is thus more ambitious and far-reaching than it may seem. Investments in locations where ETR exceeds 15 per cent might appear to be unaffected by the minimum; but to the considerable extent that investors achieve a lower effective rate by shifting profits to countries with rates lower than 15 per cent, they will be. The next task is to assess quite how powerful this effect is likely to be.

Figure III.5. Average FDI-level effective tax rates of large MNEs, by economic grouping and region, 2017 (Per cent)



Source: UNCTAD estimates.

Note: FDI-weighted averages. World, economic groupings and regions do not include OFCs. ETR = effective tax rate, LDCs = least developed countries, OFCs = offshore financial centres.

Box III.5. A new ETR metric: the FDI-level ETR

As a result of profit shifting, taxes paid by MNEs on profits generated by FDI do not align with ETRs reported by foreign affiliates in host countries. Part of the FDI income is shifted offshore and subject to lower ETRs.

Thus, the ETR observed in host country C will be higher than the actual ETR faced by MNEs on income generated by FDI there. To account for this effect, an FDI-level ETR is then introduced:

$$ETR_C^{FDI} = \frac{CIT\ on\ income\ generated\ by\ FDI\ stock\ in\ host\ country\ C}{Income\ generated\ by\ FDI\ stock\ in\ host\ country\ C}$$

The standard host-country ETR, in contrast, is:

$$ETR_C = \frac{CIT\ paid\ by\ foreign\ affiliates\ in\ host\ country\ C}{Profits\ reported\ by\ foreign\ affiliates\ in\ host\ country\ C}$$

implying that $ETR_C^{FDI} \neq ETR_C$ if profit shifting takes place. The two ETRs are related as:

$$ETR_C^{FDI} = \sum_i \gamma_{C_i} * ETR_{H_i} + \left(1 - \sum_i \gamma_{C_i}\right) * ETR_C$$

where H_1, H_2, \dots, H_N are OFCs to which foreign affiliates operating in country C shift a share of their profits, respectively $\gamma_{C_1}, \gamma_{C_2}, \dots, \gamma_{C_N}$. Bilateral profit-shifting shares can be calibrated using one of the available methodologies to estimate profit shifting. Casella and Souillard (2022) discusses and compares different approaches including the profit misalignment method (Garcia-Bernardo and Janský, 2022) – the baseline approach adopted in this report – as well as the method of comparison with domestic firms (Tørsløv et al., 2021) and the semi-elasticity method (Heckemeyer and Overesch, 2017).

Source: UNCTAD, based on Casella and Souillard (2022).

2. Pillar II and the taxation of FDI income

a. The increase of FDI-level ETRs

The increase in corporate taxation for MNEs caused by a minimum tax rate applied to foreign affiliates operates through two main channels: host countries' ETRs and profit shifting.

The first, and most obvious channel, is through the ETRs of the host countries whose GloBE ETRs are below the minimum of 15 per cent and so are subject to some top-up under Pillar II rules. How foreign affiliates in host countries distribute around the threshold determines the increase in the tax rates applied to their locally reported profits. In practice, for empirical purposes, given the prohibitive task of tracking within-country firm-level variations in ETRs, the analysis in this chapter uses countries' average ETRs as proxies for GloBE ETR distributions. In this context, the trigger of the ETR channel is the difference between the 15 per cent threshold and the host country's average ETR.

The second driver of change in corporate taxation paid by MNEs is the profit-shifting channel, which arises even when the standard ETR in a particular host country exceeds 15 per cent. Accounting for profit shifting substantially increases the estimated impact of Pillar II based on host countries' ETRs alone. The profit-shifting channel works through two related dynamics. On the one hand, higher taxation of income reported in OFCs leads the MNE to reduce the proportion of profit it shifts; on the other, the residual shifted profits are subject in those OFCs to higher ETRs – from an average of 7 per cent to the minimal rate of 15 per cent.

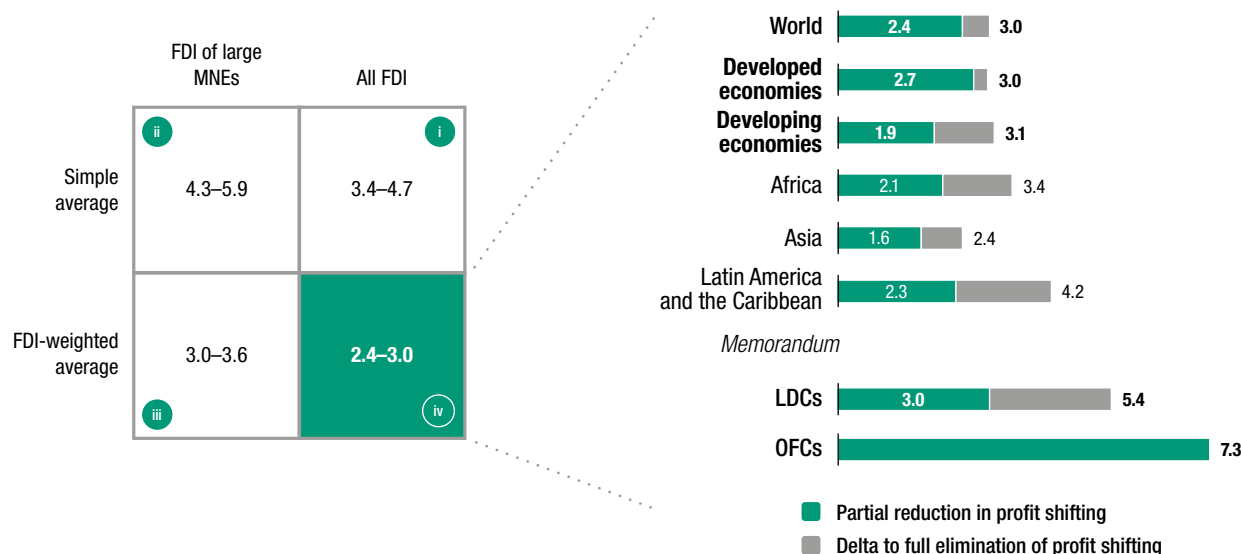
The calibration of the residual share of shifted profits after the introduction of the minimum is ultimately an empirical and modelling matter. The analysis that follows uses two scenarios to assess the impact on FDI-level ETRs: one that is likely to provide a conservative estimate of the induced increase in FDI-level ETRs (“baseline scenario”), and one that provides an upper bound on this increase (“upper bound scenario”). The baseline (conservative) scenario allows the share of shifted profits to decrease proportionally (linearly) to the reduction of the gap in the rate between host countries and OFCs.²⁸ The upper bound assumes that there is no longer any profit shifting after the introduction of the Pillar II minimum (a full reversal of profit shifting).²⁹ The actual effect is very likely to lie between the two, as confirmed by recent profit-shifting literature supporting significant non-linearity (namely, convexity in rate differentials) of profit shifting (Dowd et al., 2017; Garcia-Bernardo and Janský, 2022).

As a synthetic indicator combining both ETR levels and profit-shifting shares, the FDI-level ETR provides a flexible metric that allows account to be taken of both channels. From this perspective, it gives a more realistic picture of the increase in the CIT rate paid by MNEs on their foreign investment than do standard host-country ETRs alone, which cannot incorporate the effects on profit-shifting dynamics in the calculation of the ETR impact (box III.6).

Applying the FDI-level ETR framework described in box III.5 and box III.6 – and leaving aside for now the impact of the carve-out – this report estimates an increase of 2.4 percentage points in FDI-level ETRs faced by MNEs globally as a result of Pillar II, with an upper bound of 3 percentage points. This estimate is computed by averaging across host countries – accounting for *all* FDI (including by MNEs not in scope of Pillar II, i.e. with annual revenues below €750 million) – with host countries weighted by the size of their FDI inward stock (figure III.6, left-hand side, shaded quadrant). The assessment of the impact assumes that all countries covered by the analysis (more than 200) implement Pillar II.

Figure III.6. Impact of Pillar II on average FDI-level effective tax rates without carve-out, by economic grouping and region (Percentage points)

Increase in average FDI-level ETR, world



Source: UNCTAD estimates.

Note: World, economic groupings and regions do not include OFCs. ETR = effective tax rate, LDCs = least developed countries, OFCs = offshore financial centres.

Box III.6. How Pillar II changes FDI-level ETRs

The (average) FDI-level ETR in host country C defined in box III.5 can be written as:

$$ETR_C^{FDI} = \sum_i \gamma_{C_i} * ETR_{H_i} + \left(1 - \sum_i \gamma_{C_i}\right) * ETR_C = ETR_C - \sum_i \gamma_{C_i} * (ETR_C - ETR_{H_i})$$

where H_1, H_2, \dots, H_N denote OFCs to which foreign affiliates operating in country C shift a share of their profits, respectively $\gamma_{C_1}, \gamma_{C_2}, \dots, \gamma_{C_N}$.

For foreign affiliates of large MNEs (in scope), the impact of the Pillar II minimum on the FDI-level ETR is given as follows:

$$\Delta ETR_{large,C}^{FDI} = (ETR'_C - ETR_C) + \left(\sum_i \gamma_{C_i} (ETR_C - ETR_{H_i}) - \sum_i \gamma'_{C_i} (ETR'_C - ETR'_{H_i}) \right)$$

where ETR' is equal to the maximum between ETR and 15 per cent and γ' are the profit-shifting shares after implementation of Pillar II. Intuitively, the first term in the right-hand side represents the ETR channel, while the second and third capture the profit-shifting channel. The ETR channel depends simply on the level of the host country's ETR relative to the minimum, while the profit-shifting channel depends on the change in exposure to profit shifting, through adjustments to both the (shifted) tax base and to the tax rates (differentials). In a world without profit shifting, then $\gamma_{C_i} = \gamma'_{C_i} = 0$. Thus, the impact of Pillar II would be limited to the difference between the minimum and the host-country ETR if positive, or 0 if not positive.

With profit shifting, the impact depends on the assumptions about the change in profit-shifting behaviour as a result of Pillar II. This analysis considers two scenarios. The baseline conservative scenario allows profit shifting to decrease gradually after Pillar II, with $\gamma_{C_i} \geq \gamma'_{C_i} \geq 0$, where the latter shares are empirically calibrated at the bilateral level. The upper-bound scenario – maximizing the impact of the profit-shifting channel – assumes the elimination of profit shifting after Pillar II: $\gamma_{C_i} \geq 0$ and $\gamma'_{C_i} = 0$, for all i .

Finally, to obtain the impact of Pillar II at the host-country level – including all foreign affiliates, both in and outside the scope of Pillar II – the impact in the equation above is weighted by some (host country-specific) factor ω_C that reflects the share of income generated by foreign affiliates of large MNEs in the income generated by all foreign affiliates

Source: UNCTAD, based on Casella and Souillard (2022).

As small countries tend to report lower (pre-Pillar II) rates, unweighting increases the estimated impact of the reform, from 2.4 to 3.4 percentage points in the baseline scenario (from quadrant IV to quadrant I in figure III.6, left-hand side). FDI by large MNEs – falling within the scope of application of Pillar II – are subject to a stronger increase: in the baseline scenario, the increase in their FDI-level ETRs is 4.3 and 3.0 percentage points in the unweighted and weighted versions, respectively (quadrants II and III in figure III.6, left-hand side).

Comparing developing and developed countries, it is only in the upper-bound case (maximal response) that the impact on FDI-level ETRs is substantially the same, at about 3 percentage points (figure III.6, right-hand side). In the baseline scenario, where a part of profits continues to be shifted to OFCs, the increase in FDI-level ETRs in developing countries is two thirds of that in developed economies (1.9 percentage points against 2.7 percentage points). In this case, the growth in the tax rate faced by MNEs on their investment in developing economies is about half of that in developed economies. Among developing countries, those in Latin America and the Caribbean and in Africa see the largest increase in FDI-level ETRs (2.3 and 2.1 percentage points in the conservative scenario), while the impact in Asia is more moderate (1.6 percentage points). Excluding OFCs, LDCs are the most affected, with an increase in the average FDI-level ETR of 3 percentage points in the baseline scenario, with an upper-bound of 5.4 percentage points.

Different patterns of impact across regions in the two scenarios can be largely explained by exposure to the two channels, host-country ETRs and profit-shifting. Countries that have relatively lower ETRs and that are less prone to profit shifting tend to display a more limited gap between the baseline scenario and the upper bound, since the difference between scenarios depends on MNE profit shifting behaviour. This is fully exemplified by OFCs, which have very low ETRs and no outward profit shifting. To a lesser extent, this is also the case for developed economies. Developing countries, particularly in Africa and in Latin America and the Caribbean, are in the opposite situation, with relatively high ETRs and significant exposure to profit shifting, explaining a sizable difference between the baseline and the upper bound scenario for those countries.

These insights are further confirmed and qualified through an explicit decomposition of the impact, into the ETR channel and the profit-shifting channel (figure III.7). For ease of exposition, the decomposition is made under the assumption of full reversal of profit shifting (upper bound). All profits shifted pre-Pillar II are then simply reassigned to the host countries where they are generated.³⁰

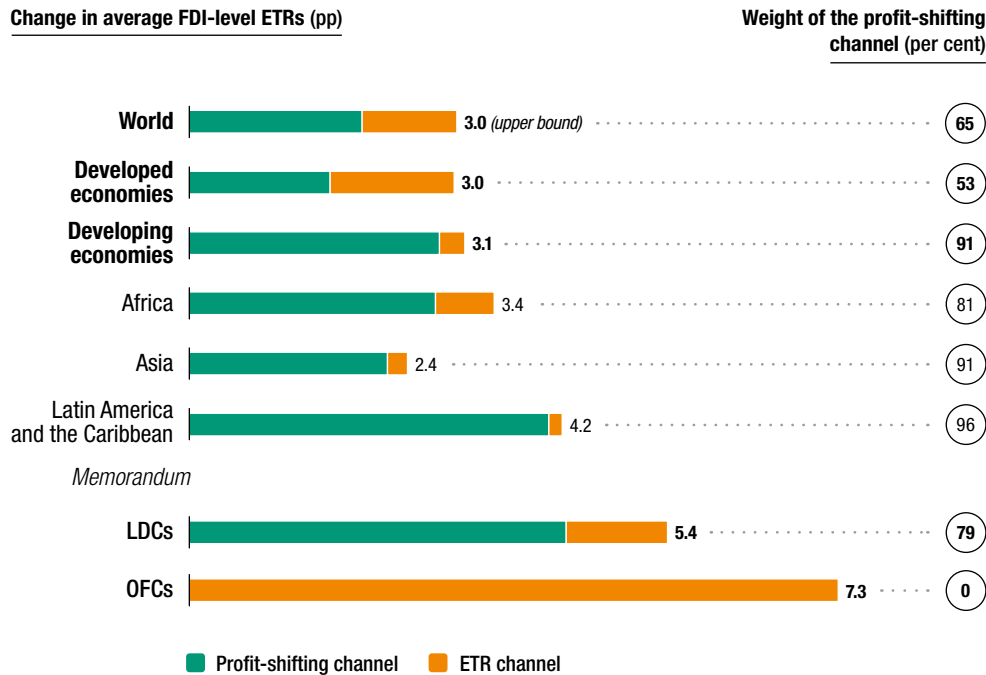
Globally, of the 3 percentage point increase in the FDI-level ETR, 2 percentage points can be attributed to the impact of the profit-shifting channel. By contrast, the increase in FDI-level ETR due to the (upward) realignment of host-country ETRs to the minimum (the ETR channel) drives a more modest increase.

Yet, the effects are very different between developed and developing economies. In developed economies, the contribution to the impact is evenly shared between the two channels. In developing economies, including LDCs, the profit-shifting channel is the more prominent, owing to the combination of greater exposure to profit shifting and their higher pre-Pillar II ETRs. As a result, the weight of the ETR channel is less than 10 per cent in developing economies, compared with almost 50 per cent in developed economies. Among developing economies, LDCs are somewhat different, with a stronger weight of the ETR channel. Conversely, in OFCs, the ETR channel drives all the difference, an increase of 7.3 percentage points.

Looking through the lens of the FDI-level ETR at the objectives of the tax reform – countering profit shifting on the one hand and limiting tax competition on the other – it appears that Pillar II acts mainly through the impact on profit shifting from applying the minimum rate to OFCs rather than through the application of the minimum elsewhere.

Figure III.7.

Decomposition of the impact of Pillar II on FDI-level effective tax rates, by economic grouping and region (Percentage points and per cent)



Source: UNCTAD estimates.

Notes: FDI-weighted averages. World, economic groupings and regions do not include OFCs. Upper-bound scenario assumes full elimination of profit shifting after Pillar II and no carve-out. ETRs = effective tax rates, LDCs = least developed countries, OFCs = offshore financial centres.

This is particularly true for developing countries. Put differently, in a world without profit shifting, the increase in corporate taxation on FDI income as a result of Pillar II would be very limited in developing economies. The empirical evidence of this limited impact demands two important caveats.

First, an FDI-weighted average understates the impact of the ETR channel across individual countries. Since smaller countries generally apply lower ETRs, a simple (unweighted) average across countries would result in a higher impact – a global 4.7 percentage point increase in the FDI-level ETR in the upper-bound estimate (compared with 3 percentage points in the weighted version), with most of the additional impact driven by the ETR channel.

Second, and more importantly, the calculation of the impact of the ETR channel assumes that all foreign affiliates are subject to the average ETR in the host country. This assumption captures de facto the impact on average ETRs rather than, more relevant for considering investment effects of Pillar II, the average impact on ETRs (box III.7). It can be proved that the impact on the average ETR is smaller than the average impact on ETRs. From this perspective, the baseline estimate in this study understates the actual impact.

A key feature of Pillar II is the application of a substance-based carve-out to reduce the tax base to which the Pillar II top-up tax rate applies (section A). This is intended to preserve the possibility for countries to compete for real and productive investment. As such, the share of profit that can be carved out – i.e. the share of a foreign affiliate’s total profit that can be spared from the application of the minimum tax rate – is anchored to indicators of tangible assets and employment. The existence of this carve-out leaves an “open window” for countries to engage in a degree of tax competition through their domestic tax system, as highlighted in section D.

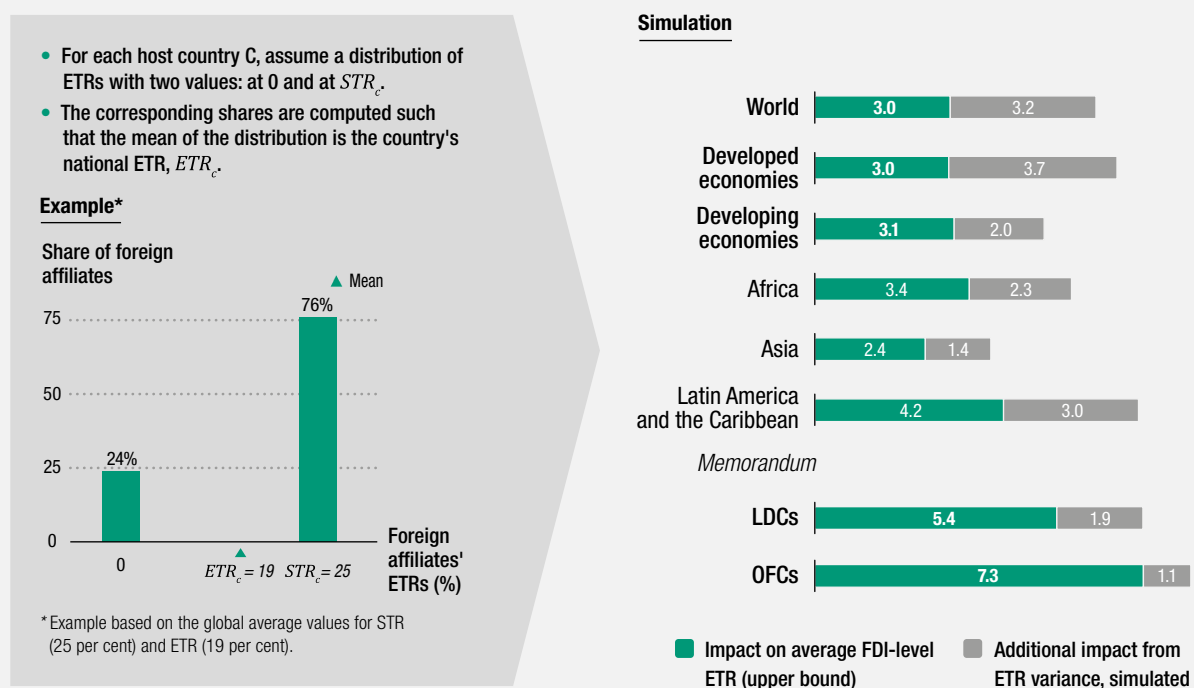
Box III.7. Accounting for ETR variance within countries

Tax incentives are one important reason why ETRs are generally lower than STRs. However, tax incentives are not granted uniformly to all foreign affiliates: the average ETR observed at the country level is the result of very different tax rates faced by individual foreign affiliates. As Pillar II applies to those individual foreign affiliates, impact assessments based solely on average ETRs have their limitations. However, for developing countries, data that can be used to infer the full distribution of ETRs are extremely scarce.

Assuming ETRs concentrated at the country level leads to a systematic underestimation of the impact of a minimum tax. In the case where the country-average ETR is higher than the minimum threshold – the most common situation in developing countries – the direction of the bias is obvious. The analysis records no impact (excluding, for the moment, profit-shifting considerations) whereas in practice Pillar II produces an increase of the ETR faced by a subset of foreign affiliates, and hence of the average ETR as well. However, underestimation of the impact of the minimum can be shown to hold also in the general case.

The degree of underestimation of the impact depends on the distribution of the ETRs, which varies by country and is not empirically observable for most countries. A rough indication can be provided by a simulation-based analysis, assuming for each host country a discrete distribution of ETRs with only two values, at zero and at the STR, and with the mean at the national average ETR. This loosely corresponds to the case where host countries provide exemptions (zero rate) as the only type of tax incentive; when exemptions do not apply, FDI income is taxed at the full STR. The impact on average (FDI-level) ETRs globally then becomes around twice the impact calculated in the scenario that disregards ETR variance (box figure III.7.1).

Box figure III.7.1. Simulation of the additional impact of Pillar II in presence of variance of effective tax rates within countries (Percentage points)



Source: UNCTAD estimates.

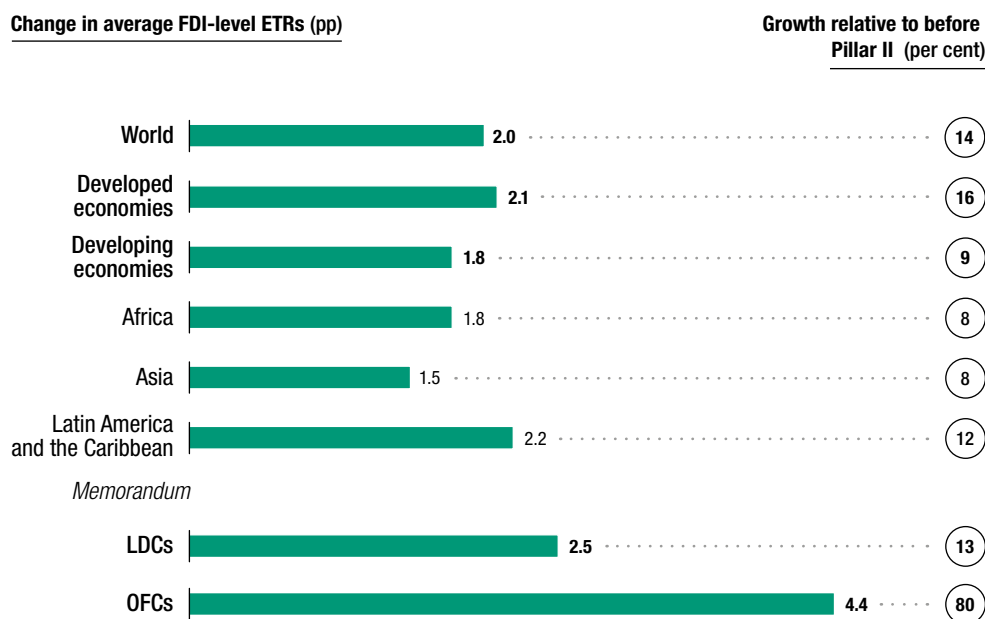
Notes: World, economic groupings and regions do not include OFCs. FDI-weighted averages. Upper-bound scenario assumes full elimination of profit shifting after Pillar II and no carve-out. The list of OFCs follows that of Tørsløv et al. (2021). ETR = effective tax rate, LDCs = least developed countries, OFCs = offshore financial centres.

Source: UNCTAD, based on Auclair and Casella (forthcoming).

The introduction of the carve-out mitigates the impact of the Pillar II minimum tax rate on FDI-level ETRs, to the extent that it reduces the tax base to which the top-up applies in host countries (hence affecting the ETR channel).³¹ The magnitude of the reduction depends on the size of the carve-out. Proper calibration of the carve-out shares is empirically challenging.

Figure III.8.

Impact of Pillar II on average FDI-level effective tax rates with a carve-out, by economic grouping and region (Percentage points and per cent)



Source: UNCTAD estimates.

Notes: FDI-weighted averages. This baseline estimate refers to a conservative scenario with a partial (linear) reduction of profit shifting after Pillar II. World, economic groupings and regions do not include OFCs. ETR = effective tax rate, LDCs = least developed countries, OFCs = offshore financial centres.

Available data on reported payroll, intangible assets and profits from the OECD CbCR and the OECD Activity of Multinational Enterprises (AMNE) Database hint at an average carve-out share of about 40 per cent of reported profits across host countries. This share implies an increase in FDI-level ETRs at the global level of 2 percentage points in the baseline estimate, from a pre-Pillar II level of 15 per cent. This corresponds to a relative growth in tax liabilities faced by MNEs of 14 per cent (figure III.8).

Combining the results across different scenarios and assumptions on the carve-out (see figures III.6 and III.8), the increase in FDI-level ETR brought about by Pillar II is estimated to be between 2 and 3 percentage points globally. This implies a growth relative to the pre-Pillar II level between 14 per cent, in the baseline conservative scenario with a carve-out, and 20 per cent as an upper bound. This relative increase will be higher for FDI in developed economies (16 per cent in the baseline scenario) than in developing economies (9 per cent). The ETR impact on FDI by large MNEs alone (with annual revenues above €750 million) may be up to 17 per cent in the baseline. It should also be noted that the baseline estimate reflects the average increase faced by FDI (an FDI-weighted average); this is smaller than the simple average change in FDI-level ETR across countries, as high as 17 per cent too.

The baseline estimate of the ETR impact of Pillar II in this report is higher than that provided by the OECD in its EIA (OECD, 2020; Hanappi and Gonzalez Cabral, 2020; see also box III.1). Based on a smaller subset of 66 countries, the results in Hanappi and Gonzalez Cabral (2020) indicate that the average effective tax rate of MNEs would increase on average by 0.46 percentage point (with the estimated impact on the marginal effective tax rate significantly higher, at 1.85 percentage points). While also adopting different methodological approaches, a more fundamental difference between the estimates in this report and the OECD estimates is that they reflect different underlying perspectives on the

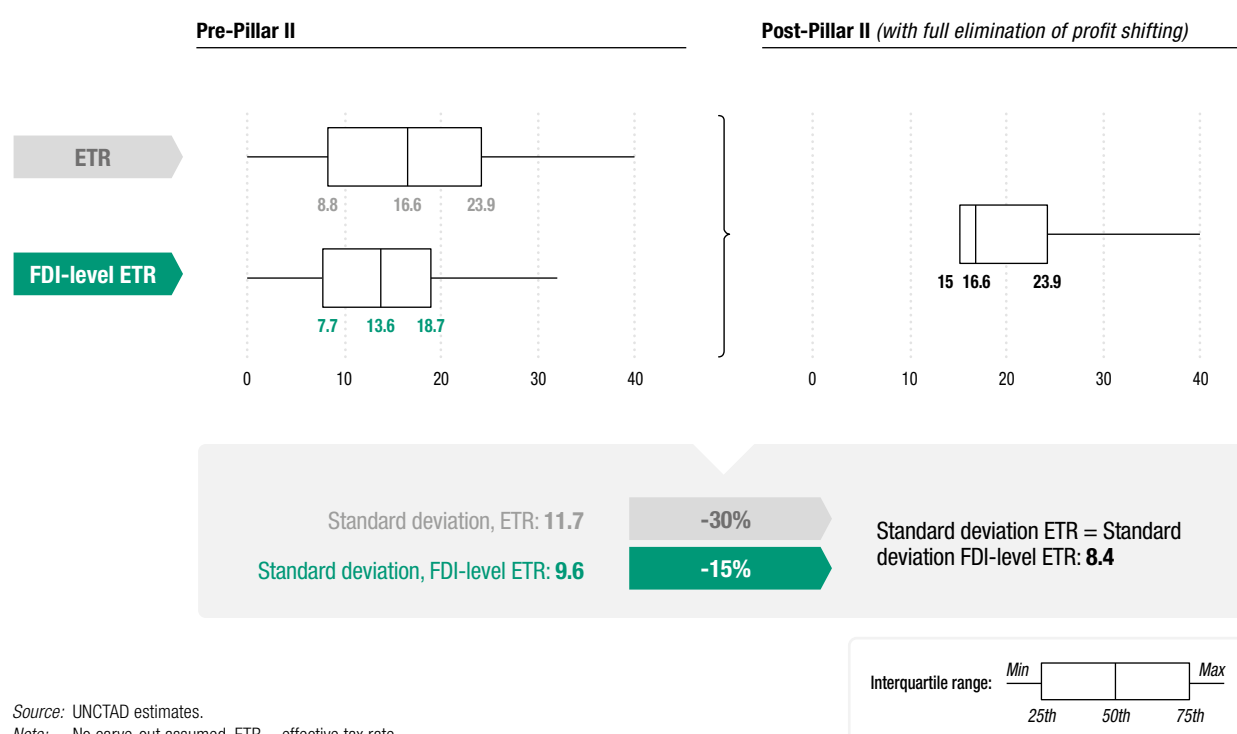
investment impact of Pillar II. Whereas the objective of this chapter – focusing specifically on policy implications for developing (recipient) countries – is to analyse the impact of Pillar II on corporate income taxation of FDI, the analysis of the OECD looks at the impact on CIT associated with group-level investment. This fundamental difference is reflected analytically in the two different notions of ETR introduced to measure CIT impact – the FDI-level ETR introduced in this report (see box III.5) and the OECD’s group-level ETR (OECD, 2020, section 4.4). Intuitively, impacts of Pillar II on group-level tax bills are lower than at the FDI level because MNEs have the opportunity to optimize investment decisions by choosing the best location within their geographic network, an obvious option being to invest in the home country, where the minimum does not apply. In fact, the OECD study investigates the effect of Pillar II on the group-level ETR associated with an investment conducted in the home country of the MNE.

b. Mitigation of tax rate differentials

By setting a floor to the race to the bottom in CIT, the introduction of a minimum tax rate mitigates tax rate differentials between countries by mechanically compressing standard ETRs into a smaller range. Without profit-shifting considerations, the reduction in tax rate differentials caused by the Pillar II minimum (at 15 per cent) is particularly sizeable. Assuming for simplicity that there is no carve-out, a third of developing countries – and about half of developed ones – will see their standard ETRs re-aligned (upward) to the minimum, reducing the gap between those countries and others that have ETRs above 15 per cent. The post-Pillar II distribution of the average ETR across countries appears “truncated” at the minimum tax rate, resulting in a 30 per cent lower standard deviation (figure III.9; compare first box plot in the left-hand side with right-hand side).³²

Figure III.9.

Comparison between the distributions of effective tax rates and FDI-level effective tax rates across host countries, before and after Pillar II implementation (Per cent)



Source: UNCTAD estimates.

Note: No carve-out assumed. ETR = effective tax rate.

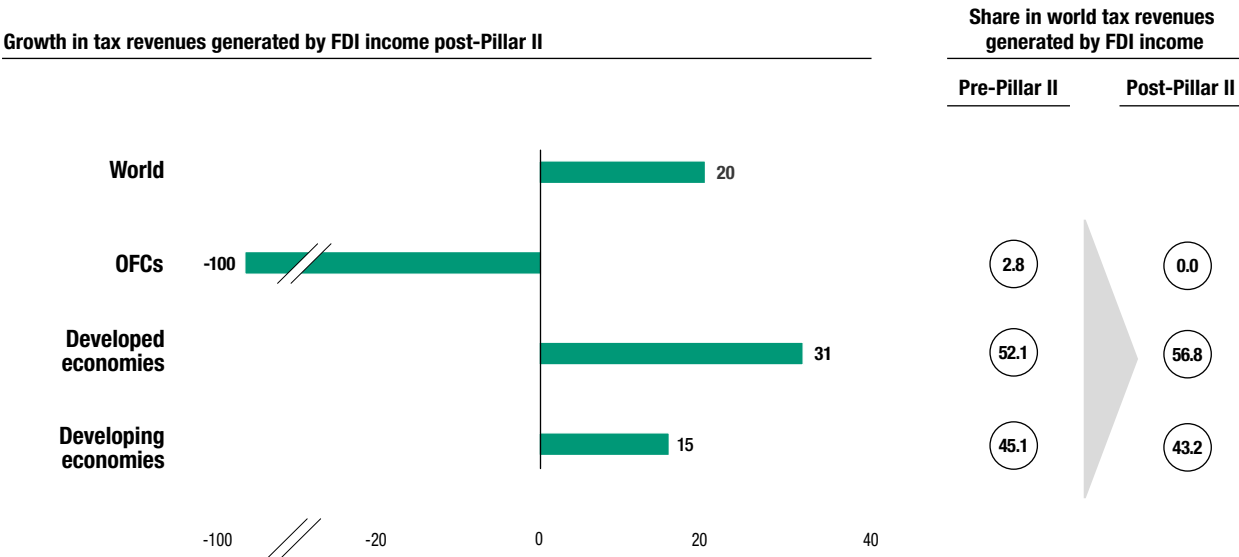
Accounting for profit shifting decreases the impact of the Pillar II minimum on ETR differentials. Generally, FDI-level ETRs are less dispersed than standard ETRs. That occurs because profit shifting mitigates tax rate differentials: widespread access to fiscal benefits provided by OFCs partially offsets differences in tax rates across host countries. This mitigating effect can be observed by comparing the dispersion of ETRs and FDI-level ETRs pre-Pillar II (compare first and second box plot in the left-hand side of figure III.9). As the minimum kicks in, however, some profit shifting does not take place anymore. The difference between the dispersion of ETRs and FDI-level ETRs will then narrow, as the distribution at the FDI level will become closer to that of ETRs. In the extreme case, assuming full reversal of profit shifting (upper bound), the distributions of ETRs and FDI-level ETRs after Pillar II coincide (right-hand side of figure III.9).

As a result, the effects of Pillar II on differentials of FDI-level ETRs are more limited than those on standard tax rate differentials. In the upper-bound case, the standard deviation of the distribution of the FDI-level ETRs decreases by a more moderate 15 per cent, i.e. half of the reduction observed with standard ETRs (compare right-hand side and left-hand side of the figure). The alternative scenario, with a partial reduction in profit shifting, shows a stronger decrease of tax rate differentials, but smaller than with standard ETRs. Thus, interestingly, on the one hand profit shifting adds to the direct impact of Pillar II on the *level* of host countries' ETRs; on the other, it partially mitigates its impact on their *differentials*.

c. Implications for revenue collection

The combined effect of the introduction of a minimum tax rate on host countries' ETRs and the reduction in profit shifting generates an increase in the government revenues collected by host countries on the income generated by FDI up to 20 per cent globally.³³ This result refers to the upper-bound case with full reversal of profit shifting and no carve-out (figure III.10; see World). Taking into consideration more conservative assumptions on profit shifting

Figure III.10. Impact of Pillar II on tax revenues generated by FDI income, by economic grouping
(Per cent)



Source: UNCTAD estimates.

Notes: Three simplifying assumptions were used for this analysis: (a) full elimination of profit shifting without a carve-out, providing an upper bound for the impact; (b) application of a QDMTT by host countries; (c) all income in OFCs pre-Pillar II is shifted. The analysis excludes income generated in OFCs. Preliminary estimates indicate that the application of the IIR instead of the QDMTT in assumption (b) does not significantly modify the distributional effect. IIR = Income Inclusion Rule, OFCs = offshore financial centres, QDMTT = qualified domestic minimum top-up tax.

and assuming a carve-out share would lead to a growth in revenues in an approximate range between 15 per cent and 20 per cent. As expected, the increase in government revenues fully aligns with the increase in FDI-level ETR faced by MNEs (at some 3 percentage points or 20 per cent in the upper-bound case with no carve-out; see figure III.6).

Which government receives this additional tax revenue, while essentially immaterial to investors, is of considerable importance to the governments involved, and the allocation of this revenue has been a subject of great controversy. As discussed in section A, Pillar II envisages two possibilities. One is that the top-up is allocated to the home country of the entity involved, through the application of the IIR. The other is that it is allocated to the host country, through the application of a QDMTT. The latter has been widely welcomed as more favourable to low-income countries. Yet, even assuming that all host countries adopt a QDMTT regime, as is the case in the simulation of the revenue effects of Pillar II in figure III.10, developing countries will gain relatively less revenue from the tax reform than developed ones (a 15 per cent increase, compared with 31 per cent for developed countries). As a result, despite the gain in absolute terms, the share of developing countries in the allocation of total government revenues slightly declines, while that of developed countries increases by almost 5 percentage points.

It is likely, and consistent with the policy discussion in this chapter (section D), that host countries will adopt a QDMTT regime; in that case, the results from the simulation in figure III.10 represent a realistic picture of the revenue effects of the reform. Questions remain on what the distributional effects would be of the application of the IIR instead. Notwithstanding the same growth in global terms, the allocation of the government revenues under the IIR is expected to favor developed economies over developing ones. Quite surprisingly, however, preliminary insights from ongoing analysis suggest that the difference between the two possibilities in terms of the overall impact of Pillar II on tax revenues in developed and developing countries is quite small. In other words, the larger gain in government revenues of developed economies would not be due to the allocation of the top-up tax to the parent entity but rather to the relatively higher increase in taxes paid by MNE on FDI in developed economies compared with developing economies.³⁴ As a possible explanation, the expected redistribution of taxing rights from developing to developed economies as a consequence of the IIR is limited by the fact that the impact of the ETR channel in developing countries (i.e. the component triggering the distribution effect under the IIR regime) is small, with the profit-shifting channel accounting for the bulk of the increase in taxation.

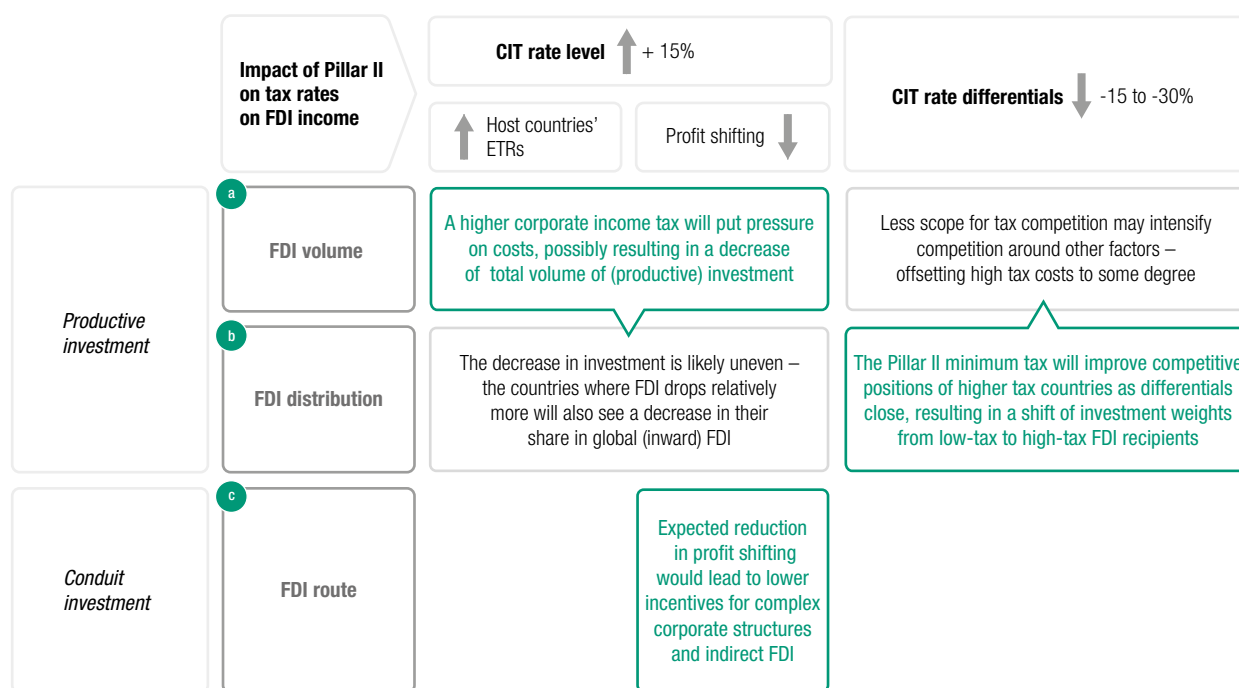
Importantly, these considerations are based on highly aggregated weighted averages, thus providing only big-picture directional indications. For smaller developing countries – which generally apply lower ETRs – the allocation of the top-up tax can make a major difference in revenue collection. Similarly, accounting for ETR variance within countries would substantially increase the impact of the ETR channel and amplify the distributional effects of the top-up in developing countries.

3. The effect of higher taxes on global FDI

Pillar II is expected to affect all three dimensions of the global FDI network: volume, distribution and route (figure III.11):

- Volume: The previous section estimates an increase in tax liabilities faced by MNEs on their FDI of about 15 per cent, due to a reduction in profit shifting and to the realignment of host countries' ETRs to the Pillar II minimum. This will exert downward pressure on the total volume of productive investment; however, indirect effects may compensate. Less scope for tax competition could intensify competition for investment based on non-tax factors, such as an improved business climate.

Figure III.11. | Framework for assessing the impact of Pillar II on FDI



□ Direct effect, focus

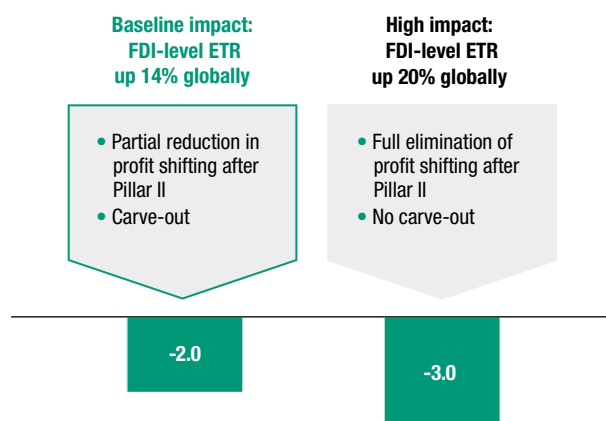
Source: UNCTAD.

Note: Impact figures rounded. CIT = corporate income tax.

- **Distribution:** The introduction of the Pillar II floor will reduce tax rate differentials between host countries – measured by the standard deviation of the distribution of FDI-level ETRs – by 15 to 30 per cent globally. As tax rate differentials narrow, low-tax countries will become less appealing investment destinations and MNEs will have stronger incentives to redirect investment to higher-tax locations. This may open opportunities for countries that are not OFCs and particularly for developing countries, which tend to have higher average ETRs.
- **Route:** Along with productive investment, the FDI perimeter includes a financial component. A sizeable share of FDI passes through *special purpose entities* (SPEs) – offshore vehicles often used in tax planning – thereby generating sizeable conduit investment. As Pillar II erodes incentives to shift profits, conduit FDI through these structures are expected to become less prevalent and investors to establish more direct connections with recipients. While this does not affect productive investment (but only the conduit component), changes in the financial component of FDI may be large.

The analysis in this section focuses on the quantification of the direct effects for each dimension. It draws on a large body of empirical research looking at the relationship between tax and FDI. However, there is a significant degree of uncertainty about how Pillar II will affect productive investment, because the reform is unprecedented in scale, scope and the extent to which it is coordinated across a large number of countries. Most empirical studies on tax and FDI (or MNE investment) capture uncoordinated tax rate changes by individual countries. This introduces several caveats into the analysis (discussed in box III.8).

Figure III.12. | Pillar II volume effect: decrease in global FDI flows (Per cent)



Source: UNCTAD estimates.

Note: The estimate of change in volume refers to productive investment and excludes conduit FDI. ETR = effective tax rate.

a. Impact on FDI volume

The baseline scenario places the potential downward effect of increased CIT on FDI global volume at about -2 per cent (figure III.12). This estimate refers to productive investment only, and thus it cannot be directly compared with historical trends in standard FDI flows, which are characterized by large variations caused by the financial component of FDI. Nevertheless, even removing the most volatile component – looking at the underlying FDI trend (*WIR19*) – the estimated decline remains moderate, although not negligible. This estimate rests on the assumption that some profit shifting continues after the BEPS reform is implemented (the baseline scenario in the ETR impact analysis) and that the carved-out share on (non-shifted) profits is 40 per cent. At the upper end, the full elimination of profit shifting and the absence of a carve-out result in a decline in global FDI flows of 3 per cent. Applying different assumptions about tax elasticity of investment produces a range of estimates of impact between -1 per cent and -4 per cent (box table III.8.2).

Box III.8. The tax (semi-)elasticity of investment

The estimates of the impact of Pillar II on the total volume of investment draw on a large body of empirical research attempting to measure the response of FDI to changes in tax rates. Yet, FDI can encompass stocks and flows at different levels (country, sector, industry or firm), on an aggregate or bilateral basis. Summary measures of tax effects used in the literature include STRs, AETRs and/or METRs and bilateral tax differentials between countries. Accordingly, estimates of the tax elasticity of investment vary with the data source, the type of data used and the estimation technique. The tax (semi-)elasticity of investment used in this analysis represents the percentage change in investment for a 1 percentage point increase in the tax rate. Estimates of the semi-elasticity of MNE investment from a number of prominent studies are reported in box table III.8.1.

Box table III.8.1. | Studies focusing on the response of MNE investment to changes in tax rates

Study	Basis	Estimated semi-elasticity
Arnold et al. (2011)	User cost of capital	-0.69
Becker and Riedel (2012)	STR	-1.42
De Mooij and Ederveen (2008)	METR	-0.80
De Mooij and Liu (2020)	STR	-1.26
Feld and Heckemeyer (2011)	STR	-0.57
Vartia (2008)	User cost of capital	-0.60

Note: METR = marginal effective tax rate, STR = statutory tax rate.

The upper and lower bounds for the tax (semi-)elasticity of investment encompass a relatively confined range (-0.6 and -1.4), reflecting the range of notionally consistent estimates in the literature. The baseline of -1 used for this report is the middle value. The range includes elasticities reported by studies using METRs and STRs. Calculation of the investment impact is a straightforward multiplication of the tax (semi-)elasticity by the (percentage point) change in the relevant tax rate, which is taken here to be the increase in the FDI-level ETR.

In principle, for the reasons discussed in section A, the change in an appropriately defined METR might be preferable, but adequate information for a wide set of countries on pre- and post-Pillar II METRs is not available. Nevertheless, the AETR, METR and STR are generally positively correlated, with the AETR tending to lie (under some conditions) between the STR and the METR. The literature review reported by

/...

Box III.8. The tax (semi-)elasticity of investment (Concluded)

box table III.8.1, using different measures of ETRs, including not only METRs but also (most notably for this analysis) STRs, is reassuring: the range of values for the tax semi-elasticity remains relatively confined across different definitions of tax rates.

Different scenarios indicate a decline in global FDI flows between 1 and 4 per cent as a result of lower investment volume by MNE affiliates post-Pillar II (box table III.8.2), with the upper bound reflecting the full elimination of profit shifting, no carve-out and a high tax elasticity of investment (-1.4), and the lower bound reflecting continued profit shifting, a carve-out at 40 per cent of profits and a low tax semi-elasticity (-0.6). Overall, results are most sensitive to assumptions on the tax semi-elasticity followed by the assumptions on profit shifting, whereas the calibration carve-out is less important.

Box table III.8.2. Expected change in FDI flows post-Pillar II

	Semi-elasticity	Baseline scenario	Upper-bound scenario
Low response	-0.6	-1.2%	-1.8%
Baseline	-1.0	-2.0%	-3.0%
High response	-1.4	-2.8%	-4.0%

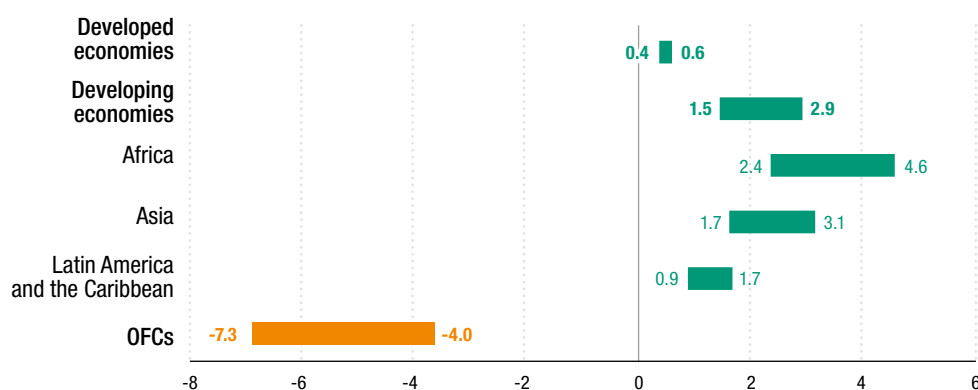
Note: Baseline scenario assumes partial elimination of profit shifting post-Pillar II and a carve-out. Upper-bound scenario assumes full elimination of profit shifting post-Pillar II and no carve-out.

Source: UNCTAD.

b. Impact on FDI distribution

Bilateral tax rate differentials are a determinant of efficiency-seeking FDI, and the change in the distribution of FDI-level ETRs post-Pillar II may reshape the competitive landscape for MNEs' foreign investment and divert some investment from (previously) low-tax to higher-tax countries (figure III.13; box III.9). As OFCs lose their tax advantage, developing countries are likely to gain investment from diversion. The largest gains are expected in Africa and Asia, where conservative estimates indicate a 2.4 per cent and 1.7 per cent increase in FDI inflows, respectively. Gains in Latin America and the Caribbean and in developed economies are likely more limited but still positive. Overall, this analysis shows that, in developing

Figure III.13. Pillar II diversion effect: change in FDI inflows by region (Per cent)



Source: UNCTAD estimates, based on Keen et al. (forthcoming).

Note: Economic groupings and regions do not include OFCs. Lower bound and upper bound reflect the 95 per cent confidence interval and the point estimates reported by Keen et al. (forthcoming), respectively. Baseline scenario and constant FDI volume assumed.

In setting limits on international tax competition, Pillar II will diminish the competitive advantages of particularly low tax rates and of many tax incentives. Without their former advantage, low-tax countries risk attracting fewer projects, and higher-tax countries will become relatively more attractive for investment. Aside from effects on the global level of investment, there may thus be a reallocation of investment towards higher-tax countries.

Assessing the likely strength of this “diversion” effect is not straightforward. The approach here builds on the work of Keen et al. (forthcoming), who find that real investment in a potential host country C from MNEs with a parent in country P is significantly higher, the lower is the tax rate in C relative to the average tax rate that MNEs in country P face elsewhere. Applying their methodology to FDI-level ETRs, bilateral tax rate differentials, $\Delta\tau_{CP}$, are calculated. This measure is the difference between the tax rate in a host country and the weighted average of the tax rates in all the other potential investment destinations j that the parent might invest in, as given by:

$$\Delta\tau_{CP} = \frac{\sum_{j=1}^N T_j \theta_{jP} - T_C}{1 - T_C}, \text{ where: } \theta_{jP} = \frac{\text{sales}_{jP}}{\text{sales}_P}$$

For each country pair, the change in tax rate differentials induced by Pillar II is given by $\Delta\tau_{CP} \text{ post-Pillar II} - \Delta\tau_{CP} \text{ pre-Pillar II}$, with the countries' tax rates measured by the FDI-level ETRs. MNE bilateral sales' shares across countries are not always available however, so bilateral ultimate FDI stocks from Casella (2019) are used as a proxy. The data closely match sales by foreign MNEs as reported in OECD inward data on foreign affiliate trade in services (FATS) (a univariate regression gives a coefficient of 1.03 and a R^2 of about 0.87). The semi-elasticity of MNE investment reported by Keen et al. (forthcoming) of 3.04 – meaning that an improvement in the tax rate differential of a country by 1 percentage point will increase FDI by 3 per cent – is then applied to the change in differentials in FDI-level ETRs to find the expected change in the allocation of investment following the implementation of Pillar II. To isolate the reallocation effect, a constant level of global FDI pre- and post-Pillar II is assumed.

Source: UNCTAD, based on Keen et al. (forthcoming).

countries in particular, the diversion effect has the potential to counterbalance investment losses caused by the volume effect. Yet this potential will not be realized automatically. Developing countries will be able to fully leverage the competitive gains associated with a decrease in tax rate differentials if they push on other more critical investment determinants such as those associated with economic or institutional fundamentals.

c. Impact on FDI routes

UNCTAD estimates the share of FDI stock through OFCs at about 35 per cent of all inward FDI stock (*WIR15*).³⁵ This share corresponds to more than \$10 trillion of FDI stock. This component does not reflect productive investment and is associated with conduit FDI and tax planning practices.³⁶ To the extent that Pillar II will reduce profit shifting, it can be expected that some FDI stock in OFCs will be dismantled. Ultimate investors will be more likely to establish direct links with recipients, reducing the share of conduit FDI. Assuming for illustrative purposes that the decrease in FDI stock in OFCs as a result of Pillar II is the same as the expected reduction in profit shifting, the effect on total FDI stock would range from -10 per cent (baseline case, with partial reduction of profit shifting) to -35 per cent (upper-bound case, with full elimination of profit shifting). The value of the FDI stock “at stake” in OFCs would be large, ranging from \$4 trillion to \$12 trillion. Major disinvestment of the FDI stock in OFCs would also weigh heavily on trends in FDI flows.³⁷

C. IMPLICATIONS OF PILLAR II FOR TAX INCENTIVES

This section focuses on the implications of Pillar II for tax incentives, a key policy tool adopted by countries to attract FDI. There are both policy and analytical arguments calling for specific analysis of the effects of the reforms on tax incentives. The transformation of tax incentives will ultimately be determined by how the new tax environment affects each specific category of incentives, especially those most commonly used to attract FDI. The granular assessment here can serve as a guide for investment policymakers and investment promotion institutions as they assess and review their incentive systems in light of the innovations brought about by Pillar II.

1. Tax incentives and ETRs

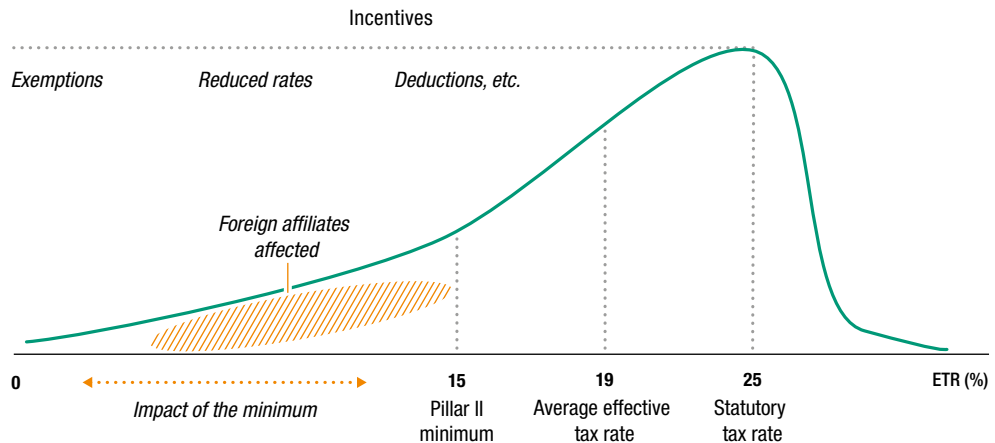
Tax incentives are one of the main reasons for the observed gap at the country level between average STRs and average ETRs (see figure III.2). Although the cost-benefit ratio of such incentives is debated, the investment they attract can bring job creation and knowledge spillovers, help develop local industries and connect countries to global value chains (GVCs).

A few incentives are unaffected by Pillar II. Others – for example, tax holidays and blanket exemptions – may be largely negated. All countries will have to reconsider their incentive system, even those with an average ETR significantly above the minimum of 15 per cent, because incentives may well bring the ETR for individual investors below the minimum. It should be noted that, even though some incentives may appear small in absolute terms, they can be strategic for countries' economic and industrial development objectives.

In rethinking tax incentives, countries may shift to non-tax measures, such as subsidizing project infrastructure. As an alternative, countries can change their tax structures and lower other taxes, such as payroll or value added taxes. Pillar II leaves ample scope for such measures; critically, however, their own cost-benefit ratios will need close attention.

The diversity of tax incentive systems implies that the impact of the reform will fall unevenly across countries and firms. This uneven impact has analytical implications for the estimation of the fiscal effects of Pillar II. Assessments that rely on countries' average ETRs – such as those in the previous section and in other analyses of the investment impact of Pillar II so far – are based on summary statistics that reflect the average level of CIT faced by FDI in host countries. This is likely the best approximation, given the data available, to the ETRs of entities present in the country; however, distribution of (firm-level) ETRs across foreign affiliates are highly relevant for the impact of Pillar II. These distributions are largely determined by the structure of tax incentives and can vary significantly (figure III.14). Any realistic distribution curve that implies some variance of ETRs would lead to greater impact than the assumption of a uniform (“representative”) country-level ETR. The effect of accounting for the variance of ETRs can be so large as to double the fiscal impact of Pillar II (see box III.7; Auclair and Casella, forthcoming).

Figure III.14. Illustrative distribution of effective tax rates of foreign affiliates in a host country



Source: UNCTAD.

Notes: Illustrative shape of an ETRs' distribution for a generic host country (with STR and ETR equal to the global averages). In this example, a large group of foreign affiliates pays the full statutory rate (resulting in a "peak" at the STR). Host countries provide a variety of incentives to specific subsets of foreign affiliates; these firms face ETRs lower than the STR. Incentives can range from deductions to reduced rates to exemptions, for which the tax reduction is maximized. The example shows that the country's average effective tax rate (19 per cent) is not a fully representative indicator for the impact of Pillar II. Simply based on the average ETR, the host country would not be affected by a minimum at 15 per cent; however, a subset of foreign affiliates is. As they align their ETR to the minimum, the country's overall average increases above 19 per cent.

2. Pillar II and tax incentives: an empirical assessment

As a general rule, the GloBE model rules will have an impact only when an MNE is within its scope of application, an incentive brings the ETR below 15 per cent and accounting profit exceeds the carve-out. This means that any incentive will remain intact if these conditions are not met – e.g. when it brings the ETR to, say, 16 per cent; when an MNE has global turnover of less than €750 million; or when the industry to which the incentive applies runs on tight profit margins and is intensive in labour and tangible assets, thereby causing the substance carve-out to produce a negative result for GloBE net tax. Envisaged as acting parallel to existing corporate tax systems, the GloBE rules hence do not affect any incentive in all circumstances. Even when a given incentive is rendered economically ineffective up to the minimum rate of 15 per cent it is never legally prohibited by Pillar II, as the latter aims to ensure a minimum level of taxation of excess profits without interfering directly with the domestic system of corporate taxation. Moreover, some tax measures – such as accelerated depreciation, loss carry-forward or participation exemption regimes – do not reduce the ETR calculation for GloBE purposes, thus minimizing the impact of Pillar II on such domestic regimes.

As not all incentives are affected and not all are affected to the same extent, to establish the implications of Pillar II on tax incentives, it is important to discriminate between them: that is, to determine how large is the set of tax incentives affected by the reform and, within this group, what is the share of the categories that are most affected. A precise quantitative assessment would require an empirical mapping of tax incentives through the lens of Pillar II, which is not possible given current data availability. Nonetheless, the new Government Tax Expenditure Database (GTED), published for the first time in the fall of 2021, reports tax expenditure provisions published by countries worldwide from 1990 onwards and allows some empirically informed high-level sizing.³⁸ As a main feature, each provision in the database is classified according to four key dimensions: beneficiary, tax base, policy purpose and type of reduction. Each of these dimensions provides useful information on the possible relevance of Pillar II for the current structure of overall tax incentive systems.³⁹

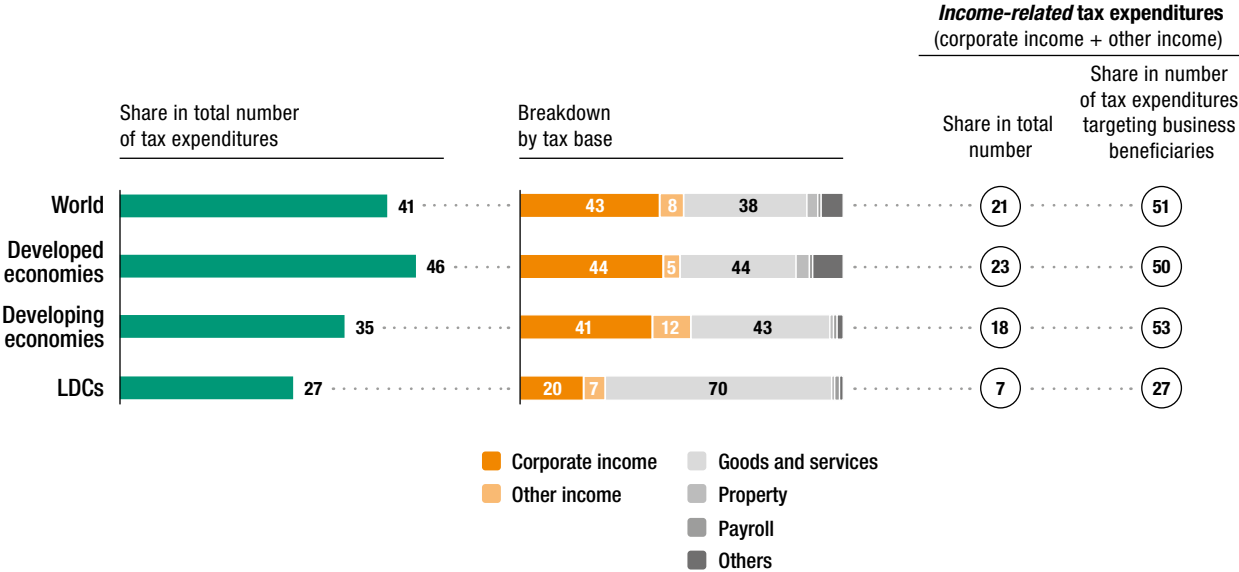
As a first approximation, the scope of Pillar II can be delimited by tax expenditures addressed to *business beneficiaries*, and within that subset, those targeting *income-related taxes* – mainly CITs but also other income-based taxes such as taxes on capital gains. This perimeter includes (but is not limited to) incentives affected by Pillar II.⁴⁰ Yet, it is notable that the vast majority of tax expenditures lies outside this perimeter, targeting non-corporate beneficiaries and/or taxes other than income-based ones.

Only one fifth of global tax expenditure provisions reported by countries in the last 30 years are targeting corporate income (figure III.15). More specifically, of about 17,000 tax expenditures reported by the GTED database, 41 per cent have a business beneficiary. Within this group, about half target income-based taxation – the focus of Pillar II – with the other half covering other tax categories such as taxes on goods and services or on payroll. The relative share of tax expenditures targeting corporate income in the total number of tax expenditures does not differ substantially between developed and developing economies; however, LDCs are a notable exception, with income-related tax expenditures amounting to less than 10 per cent of the total number of tax expenditures reported by these economies. The (forgone) revenue pool associated with provisions targeting corporate income equals some 5 per cent of total tax revenues of the reporting countries, a limited but non-negligible value. As a share of GDP, forgone revenues associated with income-related expenditures amount to about 1 per cent, for both developed and developing countries.

Importantly, the share of income-related tax expenditures in the total number of tax expenditures with business beneficiaries increases from 50 per cent to 75 per cent when focusing on expenditures aimed at attracting FDI. This suggests that the coverage of Pillar II is higher for those incentives that are more directly targeted by the scope of the reform.

The focus on income-related incentives is only the first and most obvious filter that can be used to size the relevance of Pillar II for tax incentives. Zooming in on the dimension of policy purpose allows some additional refinement. More affected will be incentives whose main purpose is to attract foreign investment and/or target investment from large MNEs and/or those that have a heavier intangible component (owing to the lesser tax reduction

Figure III.15. Tax expenditure provisions targeting business beneficiaries, 1990–2020 (Per cent)



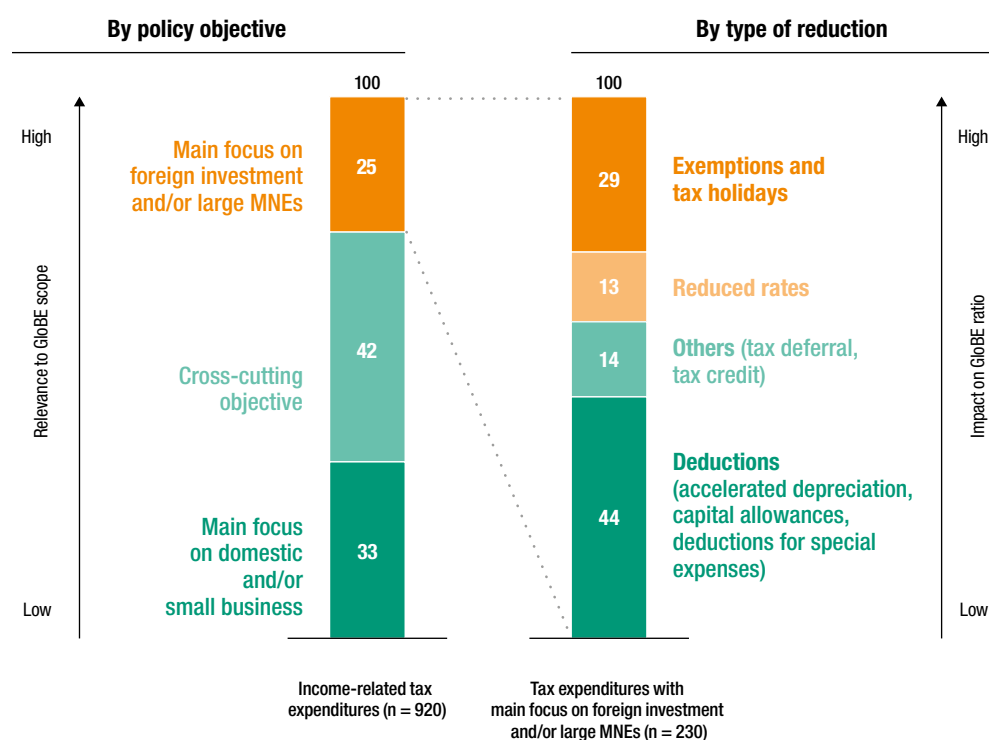
Source: UNCTAD, based on the Government Tax Expenditure Database.
 Note: Number of tax expenditure provisions reported = 16,900. LDCs = least developed countries.

in that case from the substance-based carve-out). How large these categories are within the group of income-related incentives is difficult to assess from the provisions reported in the GTED database.⁴¹

Nevertheless, it is reasonable to exclude from the relevant group up to a third of tax provisions with reported objectives that focus on domestic and/or small business (figure III.16, left-hand side). It is indicative that among the most frequently cited policy objectives in the group of income-related tax expenditures reported by the GTED database are “develop the agricultural sector” – an industry that typically has low FDI intensity – and “promote SMEs”, which are likely outside the scope of Pillar II. For about 40 per cent of tax provisions the allocation is not straightforward, as they have objectives that cut across the scope of Pillar II. Finally, one quarter report policy objectives that generally place them in the domain of application of Pillar II. These include a minority of provisions that explicitly state as their objective to “attract FDI” as well as provisions aimed at promoting activities at high degrees of internationalization such as knowledge-intensive activities or exports, or at developing sectors that have high FDI intensity. Although necessarily high-level, this analysis shows that, even within the perimeter of Pillar II (income-related incentives), countries still retain an unaffected policy space on a large range of tax incentives, aimed at promoting policy objectives that do not interfere with the scope and objectives of Pillar II.

The fourth dimension in the GTED database, “type of reduction”, allows further discrimination between incentives in terms of their design and expected interaction with GloBE rules (figure III.16, right-hand side). In the set of incentives with broad focus on foreign investment and/or large MNEs, two main categories emerge: those reducing the CIT rate, including exemptions, tax holidays and reduced rates (42 per cent of the total),

Figure III.16. Income-related tax expenditures, by policy objective and type of reduction, 1990–2020 (Per cent)



Source: UNCTAD, based on the Government Tax Expenditure Database.

and those reducing the tax base (44 per cent), including deductions, accelerated depreciation and capital allowances. Generally speaking, the former group will be much more heavily affected by Pillar II. The remaining categories (14 per cent), including for example tax credits, will also be only moderately affected by Pillar II.

Despite some important limitations – particularly related to the incomplete reporting of tax expenditures across countries – this high-level analysis helps put the impact of Pillar II on tax incentives in some perspective. Although Pillar II has certainly significant and direct effects on tax incentives to attract FDI, countries still retain ample policy space on a large range of tax incentives: those falling outside the perimeter of Pillar II; those aimed at promoting policy objectives that do not interfere with the scope and objectives of Pillar II; and those covered by Pillar II in principle, but ultimately not significantly affected by the GloBE rules. The next section focuses on this latter analytical dimension, providing a detailed assessment of the impact of the GloBE rules for the most common incentives used by countries to attract FDI.

3. Impact of the GloBE rules on tax incentives

A detailed assessment of the implications of GloBE rules on specific incentives to attract FDI involves understanding the impact of each category of incentives on the GloBE ratio, defined by the GloBE rules as the ratio between covered taxes and GloBE income. This GloBE ratio (or GloBE ETR) is the trigger for the application of the Pillar II top-up.

The key rationale for granting an income-based tax incentive is to stimulate certain responses from a corporate entity by reducing its ETR (relative to the standard treatment). In this respect all tax incentives operating through the corporate tax and other covered taxes potentially produce some kind of reduction in the ETR faced by the beneficiary, and hence in the resulting GloBE ratio. However, the nexus is not so straightforward, and an assessment of the Pillar II impact on specific categories of incentives demands a number of considerations and steps (figure III.17). In exploring them, this analysis focuses on the implications, through the GloBE ratio, for any top-up tax. Yet, it is important to bear in mind that the total liability of the MNE is the sum of that top-up tax plus the usual domestic liability. So, incentives also affect investors through the latter route, just as they do at present. The net effect is that topping up may reduce the impact of an incentive but does not in general eliminate it.

i. Is the tax incentive in scope?

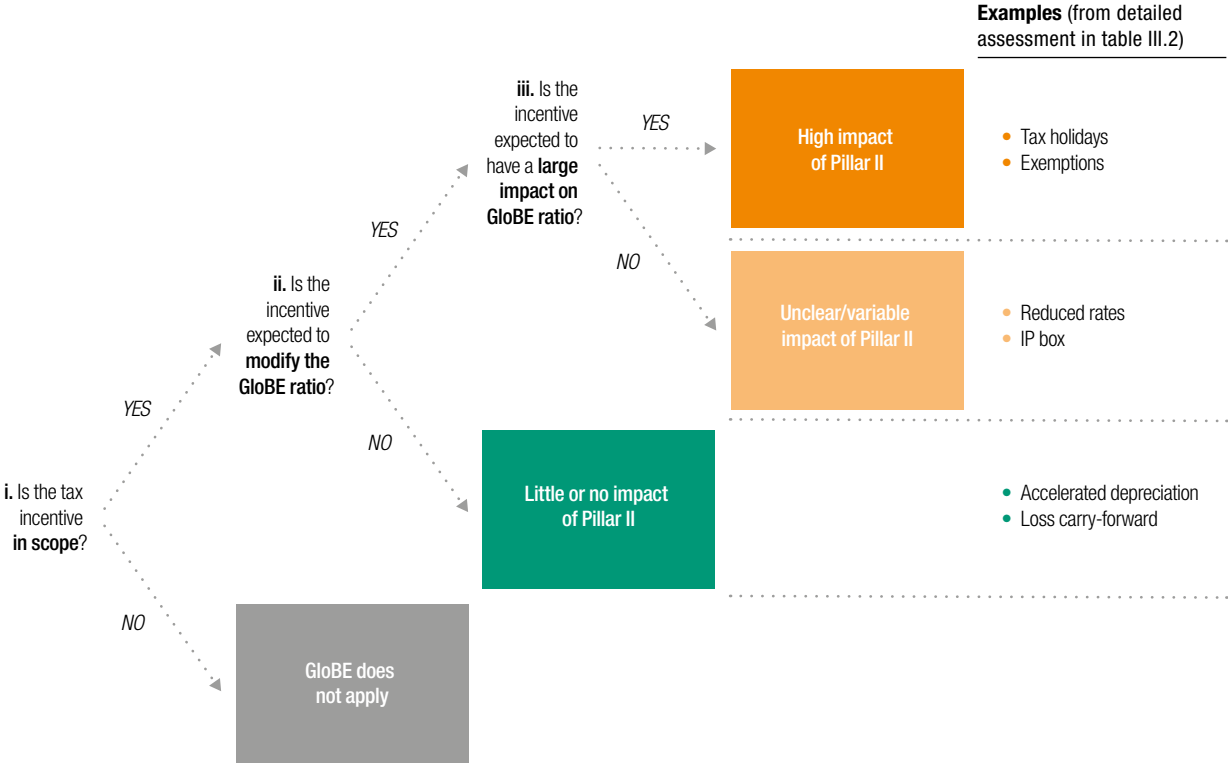
Among income-related tax incentives, the GloBE rules establish some important exceptions. These exceptions include incentives that target out-of-scope entities (SMEs and excluded entities) and specific portions of the income tax base (excluded income).

SMEs. In general, the application of the top-up tax is limited to MNE groups with annual consolidated revenues of at least €750 million.⁴²

Excluded entities. Some entities are not subject to the GloBE rules because they are excluded from the definition of constituent entities. These include government bodies, international organizations, non-profit organizations, pension funds and investment funds, and real estate investment vehicles that are the ultimate parent of an MNE group.

Excluded income. Income derived from international shipping is excluded from the computation of the GloBE income. This means that such income will not be included in the GloBE tax base in the ETR calculation and, thus, tax benefits granted to such income may not be affected by the GloBE rules, as they will not reduce the ETR for a country.⁴³

Figure III.17. Framework to assess the impact of Pillar II on (income-related) tax incentives



Source: UNCTAD.

ii. Does the tax incentive modify the GloBE ratio?

A decrease in the standard ETR generated by a tax incentive does not necessarily translate into a corresponding decrease in the GloBE ratio. It does so unless the GloBE model rules, recognizing the distinctive nature of some categories of incentives, prescribe specific adjustments to the GloBE ratio. These adjustments are generally aimed at offsetting the downward pressure exerted by the incentive on the standard ETR.

This offset usually happens either through a deduction of some relevant part of the tax base from the GloBE income in the denominator of the GloBE ratio or through the inclusion of some additional tax items in the taxes covered in the numerator. One of the most important cases arises in the GloBE treatment of timing differences, where the model rules prescribe an approach based on deferred tax accounting, seeking to match taxes to the period when the income or expenses is recognized for tax purposes. This in general implies that covered taxes in the numerator of the GloBE ratio are adjusted to align with the GloBE income in the denominator, resulting in small or no impact of GloBE rules on the underlying incentive. This general treatment of timing differences involves several types of tax incentives, including for example accelerated depreciation and loss carry-forward (see the detailed assessment in table III.2).

These adjustments have the effect of preserving a higher GloBE ratio. In the end, it is the GloBE ratio, not the standard ETR, that triggers the top-up. Thus, in these cases the intended benefits of the incentive are not limited or affected by Pillar II (i.e. the incentive brings down the standard ETR, resulting in a benefit for the investor, but not the GloBE ratio, which determines the top-up tax). The impact of the GloBE rules on the tax incentive is therefore expected to be small or null.

iii. Does the tax incentive have a significant impact on the GloBE ratio?

In general, if the incentive is in scope and not regulated by the model rules – and thus has no specific adjustment prescribed – the GloBE ratio is expected to decrease consistently with the standard ETR. In this general case, to the extent that a specific incentive brings the GloBE ETR faced by an entity below the minimum, its intended benefits will be partially or totally offset by the Pillar II top-up (notwithstanding the mitigating effect of the carve-out). The tax incentive is then assessed to be generally affected by Pillar II.

The magnitude of the impact depends on the gap between the fiscal benefits of the incentive prior to the application of the top-up and the benefits that remain after. This assessment is difficult a priori for broad categories of incentives, as it is country-, entity-, and incentive-specific. However, some categories of incentives, because of their design, are expected to have a greater impact on the GloBE ratio; these are thus prone to being highly affected by Pillar II. For other categories, the impact remains unclear and case-specific.

Two key factors underpin this assessment. The first concerns the magnitude of the fiscal benefit. A total CIT exemption that brings the tax rate down to 0 per cent has greater impact than a reduced rate. In addition, impact is clearly not linear in the decrease of the GloBE ratio but instead starts “biting” only when the ratio falls below 15 per cent. The second factor is the relevance of the tax base to which the incentive applies in total GloBE income of the entity concerned. Even generous incentives on a relatively limited portion of income, say on income from capital gains or intellectual property, will generally produce a smaller effect on GloBE income than broad-based discounts applied to total income.

4. Detailed assessment of impact on in-scope incentives

Table III.2 summarizes an overall assessment of the impact of Pillar II on the main categories of tax incentives typically adopted to attract FDI, focusing on in-scope incentives. The table is followed by a brief explanation of the assessment. More detailed elaboration and discussion is provided by Lazarov et al. (2022).

a. Reduced rates

Zero rated and less than 15 per cent: *high impact*

Governments may set a lower CIT rate as an exception to the general tax regime in order to attract FDI into specific sectors or regions. If the statutory corporate tax rate is less than 15 per cent, it is likely that the ETR under the GloBE rules will also be less than 15 per cent. It is important to note that “covered taxes” for the purpose of calculating the GloBE ETR do not rely only on the CIT rate. The ETR calculation also depends on other taxes on corporate income, such as taxes on resource rents and taxes on capital gains. Where the GloBE ETR is less than 15 per cent, it would trigger the top-up tax and to that extent eliminate the effect of the low CIT rate up to the minimum.

Rates above 15 per cent: *little/no impact*

In general, a tax incentive that decreases the CIT rate to a level that remains above 15 per cent should not trigger any impact of Pillar II, though it may do so if the base is sufficiently narrow relative to accounting profit (in the denominator of the ETR). As many countries have an STR of 30 per cent this (unaffected) reduction could be as large as half of the CIT due. Yet, it is important to consider that the standard ETR does not necessarily coincide with the relevant ratio according to the GloBE rules, which provide their own formulas that are separate from similar calculations under CIT systems.

/...

Table III.2. Summary assessment of the impact of Pillar II on incentives to attract FDI

Incentive type	Pillar II impact	Overview
a. Reduced rates		
Zero-rated	High impact	Reduced rates below 15 per cent, or even down to zero, will generally result in a GloBE ratio below the minimum, triggering the activation of the Pillar II top-up. Magnitude of impact depends on the size of the reduction.
Below 15 per cent	High impact	
Above 15 per cent	Little/no impact	Generally, reduced rates to a level above 15 per cent would not be affected. Yet, countries would need to calculate the effective rate under GloBE rules as this may still lead to a result below the minimum threshold.
b. Deductions		
Accelerated depreciation and immediate expensing	Little/no impact	Impact on accelerated depreciation and immediate expensing will be limited as deferred tax adjustments are taken into account when calculating covered taxes in the GloBE ratio.
Loss carry-forward	Little/no impact	Impact on loss carry-forwards will be limited as deferred tax adjustments are taken into account when calculating covered taxes in the GloBE ratio.
Deductible qualified expenses	Variable/unclear impact	Special tax exclusions, deductions or tax accounting conventions that are common among Inclusive Framework members are deductible from GloBE income for purposes of calculating the GloBE tax base; those that are less common may not be deductible.
c. Exemptions		
Tax holidays	High impact	Tax holiday regimes are not expressly addressed under the GloBE rules and are likely to bring the GloBE ratio below 15 per cent.
Specific exemptions: location, sector, entity	Variable/unclear impact	Exemptions granted to specific sectors, entities or locations (other than out-of-scope situations) are likely to be affected as they may bring the GloBE ratio below 15 per cent. However, exemptions applying to out-of-scope situations such as SMEs, excluded entities or excluded income are not affected.
Participation exemptions	Little/no impact	Dividends received under participation regimes are excluded from the tax base for the computation of the GloBE ratio, resulting in little or no impact.
d. Other incentives on income-related taxes		
Incentives on withholding taxes	Little/no impact	Taxation of outbound passive income by the source country is not included in the computation of the GloBE ratio, resulting in little or no impact in the source country.
IP box	Variable/unclear impact	Not directly addressed by the GloBE rules, may bring GloBE ratio below 15 per cent by reducing covered taxes, depending on the regime.
Tax credits	Variable/unclear impact	Lead either to inclusion in the income of the MNE (if credit is refundable within four years) or to a reduction in covered tax expenses (if not). Both may bring the GloBE ratio below 15 per cent.
Incentives on capital gains taxes	Variable/unclear impact	Not directly addressed by the GloBE rule, may bring the GloBE ratio below 15 per cent by reducing covered taxes, depending on the regime.

Source: UNCTAD, based on Lazarov et al. (2022).
 Note: ETR = effective tax rate.

■ Little/no impact ■ High impact ■ Variable/unclear impact

b. Deductions

Accelerated depreciation and immediate expensing: *little/no impact*

Accelerated depreciation rules permit a taxpayer to expense the cost of an asset faster than its expected economic depreciation. Immediate expensing permits the deduction of the entire cost of the asset in the year it was purchased. Both incentives lower taxable profits for the years when they are applied and give rise to timing differences when compared with financial accounts.

Since the GloBE rules rely on consolidated financial accounts to calculate the tax base, they do not take into account domestic tax treatment of depreciations that is more beneficial than under the accounting rules, including the timing benefits of immediate expensing and accelerated depreciation. To prevent this reversal, the model rules rely on the deferred tax accounting method used by the constituent entity with respect to assets eligible for these incentives for tax purposes. The GloBE rules permit the inclusion of accelerated depreciation and immediate expensing as deferred taxes when computing the adjusted covered taxes. This treatment arises from the recognition in the Inclusive Framework that these are the most common tax incentives offered by countries and that their elimination could cause challenges for capital-intensive businesses, in particular. This adjustment therefore prevents the GloBE ETR from falling below the minimum solely as a result of accelerated depreciation.

Loss carry-forward: *little/no impact*

A tax loss may occur when allowable expenses exceed taxable income. This loss may be carried forward to future years as long as national tax rules permit or until the loss has been completely offset against future tax liability, returning the company to a payable position. The GloBE rules permit adjustments for carry-forward of losses. Since loss carry-forwards create timing differences in a similar way as does accelerated depreciation, the GloBE model rules also provide for entities to use the deferred tax accounting approach to neutralize the effect on the ETR. As a result, loss carry-forwards are permitted as deferred tax adjustments that will be taken into account in computing the covered taxes.

Deductible qualified expenses: *variable/unclear impact*

Deductions for qualified expenses refer to the allowable expenses that businesses are permitted to deduct for tax purposes. Tax-allowable expenses sometimes differ from those permitted by accounting rules. For GloBE computation purposes, this means that even if the actual costs of doing business have been taken into account under the accounting rules, the local tax rules might disallow certain deductions for tax purposes. Moreover, the reverse is also possible where a certain expense might be treated more beneficially for tax purposes as compared to the accounting expensing; e.g. super-deductions (150 per cent allowance for manufacturing equipment). The GloBE model rules recognize that it is not possible or desirable to develop a comprehensive set of adjustments that will bring the GloBE tax base fully into line with the tax base calculation rules of all Inclusive Framework members. Instead, the rules establish a list of the most common expenses that may be allowed in order to calculate the GloBE tax base. Special tax expenses that fall outside of this list or are not common may not be deductible from the GloBE income base.

c. Exemptions

Tax holidays and other specific exemptions: *high impact*

Tax holiday schemes are government incentive programmes that offer a temporary reduction or elimination (full exemption) of corporate income taxes. Alternatively, specific exemption regimes may apply, such as those exempting certain sectors of the economy, types of entities or locations from taxation. These categories are likely to be affected by the application of the rules because the GloBE documents do not explicitly exclude untaxed income from the GloBE tax base, which may bring the ETR for a relevant group of entities below 15 per cent. Therefore, unless exemptions are granted to out-of-scope situations, they will be affected by the application of the GloBE rules and the levy of the top-up tax.

Participation exemptions: *little/no impact*

To prevent economic double taxation, many countries exclude dividends from the taxable income of a corporate shareholder, usually through a mechanism referred to as participation exemption. To tax these dividends under the GloBE rules would give rise to the risk of overtaxation; thus the model rules ensure that participation exemption regimes will not be affected by the application of those rules.

As dividends received under participation exemption regimes are excluded from the GloBE tax base, they will not reduce the GloBE ETR. These excluded dividends refer to any distributions paid on shares or other equity interests where the MNE group holds 10 per cent or more of the ownership interests in the issuer, or the full economic ownership of the ownership interest has been held for a period of at least 12 months. An exception is made for dividends received from short-term portfolio shareholdings, which are not excluded from the GloBE tax base and will likely be affected by the application of the GloBE rules.

d. Other incentives on income-related taxes

Incentives on withholding taxes: *little/no impact*

Some countries provide foreign investors with favourable treatment of WHT by eliminating or greatly reducing their domestic WHT on outbound passive payments such as on dividends (or liquidation payments), interest or royalties.

The GloBE rules calculate the minimum level of taxation in each State where an MNE group has subsidiaries or permanent establishments. For this reason, Pillar II does not affect directly the WHT treatment of passive income streams that this group receives because WHT is a tax imposed by the source State on a foreign resident that has no subsidiary or permanent establishment on its territory to which the passive income is attributable.

Nevertheless, if the GloBE rules lead to topping-up of the taxation on passive income in the hands of the recipient, the fiscal benefits of WHT incentives may be partially or totally offset.⁴⁴ For this reason, countries may wish to revisit their WHT incentive policy, granting such incentives only as long as no neutralization takes place in the State of residence.

Thus, WHT incentives might be still granted on dividend payments when the residence State operates a participation exemption regime, which is recognized and endorsed by the GloBE rules. For interest and royalties, the applicability of the GloBE rules would depend on whether the ETR in the residence State is below 15 per cent and, if that is the case, whether the GloBE net tax result is positive. In such circumstances, the source State may wish to consider introducing WHT that equals the difference between the actual ETR and 15 per cent: e.g. if the ETR in the residence State is 10 per cent, the source State may wish to levy 5 per cent WHT so that the WHT incentive is not collected by another country.

In addition, the Pillar II rules introduce a Subject to Tax Rule (STTR), mentioned briefly in section A. This will have an impact on WHT incentives. The STTR applies to the WHT arising with respect to payments between connected persons. It will be a rule in tax treaties and will be triggered when a payment is subject to a nominal tax rate in the payee country that is below the minimum nominal rate of 9 per cent. It covers interest, royalties and other payments for mobile factors such as capital, assets or risks owned or assumed by the person entitled to the payment; it is not yet clear if management and technical fees will be covered. The STTR can be applied even where the IIR or the Undertaxed Payments Rule have been implemented. Where it applies, its adoption would risk diminishing the incentive effect of reduced WHT rates; the possible advantage is in discouraging outward profit shifting.

IP box: *variable/unclear impact*

The intellectual property (IP) box regime is a tax incentive related to favourable tax treatment of income derived from IP rights. As the GloBE rules do not explicitly regulate the treatment of such regimes, to the extent that they lead to an ETR below 15 per cent for an MNE in a given country, the effects of the incentive are limited or neutralized in computing the GloBE ratio. The specific effects of IP box regimes depend on the exact activities that an MNE group performs in the country that offers the regime. If the IP income is diluted in other income, it is possible that even if the ETR on the IP income is less than 15 per cent, the ETR on the overall income (which is what matters for the GloBE calculation) is more than 15 per cent. Moreover, in terms of the impact on the total tax faced by the investor, IP box regimes compatible with BEPS Action 5 – i.e. regimes in which the IP rights were developed by substantive activities in the country in question – might be positively affected by the substance carve-out under the GloBE rules since non-harmful IP box regimes presuppose that there is substantive development activity.

Tax credits: *variable/unclear impact*

Refundable tax credits are instances of negative tax liability, providing a business with a refund when the taxes it owes are lower than its entitlement to a tax credit. They seem to be rarely used at present, but the GloBE rules may give them heightened importance.

Those rules divide refundable tax credits into two main groups – qualified (refundable within four years) and non-qualified (refundable for more than four years). Under the GloBE rules, qualified credits are treated as income for the company, while non-qualified credits reduce tax expenses. Both of these measures have the potential of reducing the GloBE ETR below the 15 per cent mark: the qualified credits by increasing GloBE income, and the non-qualified by reducing covered tax expenses. As discussed further in section D, refundable tax credits can even reduce total tax payable below what would otherwise be the absolute minimum of 15 per cent of excess profit.

Incentives on capital gains taxes: *variable/unclear impact*

The capital gains incentive relates to differentiating the treatment of capital gains from the general treatment of income – e.g. in a country that maintains a CIT regime, any income realized from capital gains is treated more beneficially. Save for some exceptions, the GloBE rules treat (realized) capital gains as part of GloBE income. Therefore, if a country treats capital gains income preferentially and this preferential treatment leads to an ETR below 15 per cent, the GloBE rules may affect the incentive, up to the minimum tax rate of 15 per cent. However, just as with IP box regimes, the eventual outcome depends on the activities that the MNE performs in the given country and whether the beneficial capital gains treatment can be compensated by other items of income that are taxed above 15 per cent, leading in this way to an overall ETR above 15 per cent.

This overview of the impact of Pillar II on different categories of tax incentives can help countries reconsider existing incentives schemes, potentially with a view to restructuring categories that are highly affected, and prioritize unaffected categories as well as considering whether non-tax measures might be more effective in encouraging inward investment.

D. RESHAPING INVESTMENT POLICY FOR A GLOBAL MINIMUM TAX ENVIRONMENT

This section explores options available to countries, particularly developing countries, to optimize their investment policy response to the Pillar II reforms. It looks first at the practical implications of the global minimum tax for the investment policy toolkit, including fiscal and other instruments. It then discusses the broader implications for investment policy in the context of sustainable development strategies.

1. Fiscal investment policy responses

MNE investment decisions depend on much more than taxation. Determinants such as the availability of a suitable workforce, infrastructure quality and political stability are at the top of the list of investor concerns.⁴⁵ Nonetheless, countries continue to deploy tax measures as one of their primary tools to attract (or retain) inward investment, through both the generally applicable tax rules and incentives. As discussed in previous sections, widespread adoption of Pillar II will fundamentally alter the framework within which these policies are set. Policymakers will face new challenges in their efforts to achieve an appropriate balance between the desire to attract inward investment and the need – now heightened in many countries by the pandemic – for tax revenues.

There is little experience for countries to build on in adapting to the new global environment for tax and FDI. The idea of minimum corporate taxation is not new, but implementation has been rare and limited in scope. Only two trading blocs in sub-Saharan Africa, CEMAC (Economic and Monetary Community of Central Africa) and WAEMU (West African Economic and Monetary Union), have adopted minima, and these differ substantially from Pillar II in structure and in breadth of application. It has only been in the course of designing Pillar II that real thought has been given to how the concept of how a minimum effective corporate tax rate can be turned into practice. This, as seen in section A, has turned out to require a more complex set of rules than the headline idea of a global minimum tax might suggest. Countries are entering into uncharted territory in both business tax policies and – the ultimate concern in this chapter – investment strategies.

No country can afford to ignore the implementation of Pillar II (table III.3). The most obviously affected, of course, will be those that endorse the prospective Inclusive Framework agreement and find that some of the MNE affiliates they host will be subject to the application of the minimum. But the changes that such countries will be obliged to make will have cross-border effects on countries that are not directly affected, whether because they have endorsed the agreement but set sufficiently high ETRs so that the minimum does not bite, or because they are outside the Inclusive Framework and have not endorsed the agreement. The effects on such countries are indirect, but – as the empirical results have made clear – such indirect effects, notably through the impact on profit shifting, can be powerful.

Table III.3. Adjusting the fiscal investment policy toolkit: key insights

a. Outside the Inclusive Framework	<ul style="list-style-type: none"> Investment strategies need rethinking even in countries not endorsing Pillar II
b. Direct effects of Pillar II (lower-tax regimes, preferential rates for investors)	<ul style="list-style-type: none"> Applying the Qualified Domestic Minimum Top-Up Tax protects revenue without affecting investment The effectiveness of traditional tax incentives will be diminished Some scope remains for domestic tax measures to reduce ETRs on investment
c. Indirect effects of Pillar II (higher-tax regimes)	<ul style="list-style-type: none"> Higher-tax countries will also need to respond strategically to the changing tax-investment landscape
d. Implications for regional cooperation	<ul style="list-style-type: none"> Regional tax cooperation still has a role in facilitating investment and economic integration
e. Implementation issues	<ul style="list-style-type: none"> Complexities related to implementation should be timely addressed to ensure investor certainty
f. Effects on tax competition	<ul style="list-style-type: none"> Tax competition is blunted, but not ended – and will likely take new forms

Source: UNCTAD.

Note: ETRs = effective tax rates.

Once the effects of layering Pillar II on top of current tax policies are understood, the question arises as to how countries – including those not directly affected – can best configure their own tax and investment policies.

a. Outside the Inclusive Framework

Investment strategies need rethinking, even in countries not endorsing Pillar II.

About 140 jurisdictions have indicated acceptance of Pillar II in principle. That is a very large number and covers about 95 per cent of global FDI stock. But many developing countries, including small island States, in particular, remain outside the agreement.

It might seem that countries that adhere to the minimum are placing themselves at a disadvantage relative to low-tax countries that remain outside the agreement – and that there is consequently a gain to not participating in the agreement. But this is far from clear, so long as the countries where the ultimate parents of in-scope MNEs are based do participate. This is because these residence countries will apply the top-up tax under the IIR to countries that have not accepted the agreement in exactly the same way as they will to countries that have. The key point is that topping up to the minimum can be achieved unilaterally by the residence country. Measures of this kind – bringing the income of foreign affiliates immediately into tax in their parent country and so topping up the tax paid in the host country to a higher level – have operated for decades through foreign tax credits and controlled foreign corporation rules. Pillar II is to a large degree the global extension of the idea of residence-enforced minimum taxation brought to the fore by the GILTI (global intangible low-taxed income) provisions of the 2017 United States tax reforms.⁴⁶

What lends Pillar II its force is thus not the acceptance of minimum taxation by low-tax countries, but the willingness of higher-tax parent countries to enforce it. In that sense, the effective global minimum tax envisaged in Pillar II does not require global agreement and, moreover, is hard for host countries to escape.

Thus, for the most part participating countries need not fear being undercut by countries that have not signed on to the Pillar II agreement. Their policy calculus can proceed as if all other countries had signed on to it. By the same token, there may be little for countries to gain by not signing on. Indeed, the possibility of applying the QDMTT to capture revenue that would otherwise accrue to others, with no impact on the overall tax liability of investors, suggests a positive gain from participation.

It is, of course, the sovereign right of any country to remain outside the Inclusive Framework. Prudence may perhaps warrant a wait-and-see approach of postponing a decision on participation until the timing, breadth and detail of the application of Pillar II are fully clear. This decision also needs to be taken in light of the full consequences of membership, including in relation to Pillar I (see for example Eden, 2020). In relation to Pillar II, however, adoption by the major capital importers will make it difficult for low tax countries to escape increased tax liabilities on inward investment in line with the global minimum.⁴⁷ Participation allows this to be pre-empted by a QDMTT. In terms of Pillar II, as currently envisaged, if a critical mass of investor home countries signs up, the case for determined non-participation appears to be weak.

b. Direct effects of Pillar II

The number of countries directly affected by the minimum tax may appear relatively limited. In terms of national average ETRs, it comprises primarily investment hubs (with limited real investment), and only about a third of the other countries, as shown in the empirical analysis in section B. Nevertheless, as also discussed in section B, the national average effective rate is made up of a range of rates applicable to individual investors, some of which may well fall below the minimum rate. Therefore, even countries with average rates above the minimum may be affected to some degree. Moreover, the impact of Pillar II on directly affected countries (whether or not they are formally within the agreement) and how they respond is important not only for them but as the trigger that sets off indirect effects on others.

Applying the qualified domestic minimum top-up tax protects revenue without affecting investment.

The essence of the minimum tax is the application of a top-up tax to ensure that a rate of at least 15 per cent applies to the “excess profit” – profit, that is, in excess of the substance-based carve-out – of all affiliates of MNEs large enough to be in scope of the new rules. Critically, as noted in previous sections, it is immaterial to investors whether this top-up is levied by the country that hosts the investment or that in which the affiliate’s parent resides: their tax liability is the same whichever collects the tax. There may be differences in the practicalities of compliance but none, in principle, in actual liability. *Which country collects the revenue from the top-up tax therefore does not affect investment decisions.*

From the perspective of tax policy, however – and hence for governments seeking to balance investment promotion against revenue concerns – it clearly does matter who collects the top-up revenue. The “rule order” issue of which government this should be, host country or home country, was a heated aspect of the debate in developing Pillar II. The final model rules provide a clear route for the host country to assert a first right to collect this revenue by applying the QDMTT.

There is a very strong case for countries that are affected by Pillar II to apply the QDMTT: failure to do so potentially cedes tax revenue to the parent country while conveying no tax benefit to investors. One concern might be that application of a QDMTT could create dissimilarities in the treatment of out-of-scope domestic enterprises and affiliates of large multinational groups; but the difference would favour the former and so, politically at least, appears unlikely to be problematic. Not applying the QDMTT might also be seen as sending a signal of a country’s business-friendly inclinations: but that is an inclination upon which, in terms of the minimum tax, it cannot deliver. Preliminary results on the effects of the reform on national revenues suggest that, in the broad comparison

between developed and developing economies, it makes surprisingly little difference to the final impact which rule order is adopted (likely, because the impact of the profit-shifting channel on revenues – the same whichever rule is adopted – is particularly large in developing economies). For specific countries, however, the difference can be substantial. For developing countries in particular, adoption of a QDMTT can do little harm and may do much good.⁴⁸

The effectiveness of traditional tax incentives will be diminished by Pillar II.

The model rules of Pillar II make no reference to the tax holidays or other types of fiscal incentives that many countries provide as a central element of their national investment strategies.⁴⁹ They are not grandfathered and they are not removed from application of the GloBE rules. The minimum tax rules are simply laid on top of existing regimes and will directly reduce the attractiveness of any incentives that investors might enjoy.

Yet, application of Pillar II does not mean that pre-existing incentives become wholly ineffective, as discussed in section C. Their attractiveness does not change for entities that are not part of MNE groups large enough to fall within the new rules. And even for those that are, there are some ways – discussed here – to mitigate the effect. Nonetheless, Pillar II dampens the effectiveness of incentives, and this will become increasingly the case if, as expected, the threshold of MNE size for application of the minimum tax is reduced over time.

This prospect raises challenges for countries that deploy tax incentives as a core element of their investment policy toolkit. Views on the efficiency and effectiveness of tax incentives differ. Many experts believe that tax incentives have generally not delivered effects on investment commensurate with the revenue forgone, and that tax incentives feed mutually disadvantageous tax competition between countries.⁵⁰ From their perspective, one of the attractions of a global minimum tax is to discourage the proliferation of tax incentives and encourage greater reliance on other ways to create a business-friendly environment. Opinions will continue to differ (not least within countries, between sceptical ministries of finance and activist line ministries). The aim here is not to pronounce on the merits of tax incentives as tools to promote investment but simply to assess how they are affected by the global minimum tax.

The key fact in considering the implications of Pillar II for tax incentives is thus that such incentives are not excluded from its application. There are some respects in which they will retain an impact, and – as will be seen next – some ways in which domestic tax measures can still reduce the tax liability even of entities directly affected by the global minimum tax. Nonetheless, the change in the landscape in which tax incentives have operated so far is fundamental. The adoption of Pillar II will require countries to review not only their design but also their role in national investment strategies.

Some scope will remain for domestic tax measures to reduce effective tax rates on investment.

Once a sufficient number of investor home countries adopt Pillar II rules, there is (almost) no escaping the absolute minimum of a 15 per cent tax on profit in excess of the carve-out implied by Pillar II. There are, however, three notable ways in which domestic tax policy can be used to bring effective tax rates closer to – and in one case even below – that minimum.⁵¹

Reducing domestic covered taxes amplifies the benefit to investors of the substance-based carve-out.

The effectiveness of reducing corporate taxes in order to attract investment is substantially diminished by Pillar II. Leaving aside (potentially important) complications regarding tax credits taken up later, a foreign affiliate's total tax liability when it is subject to the minimum is the sum of (1) a tax of 15 per cent on profits in excess of the carve-out,

and (2) a tax on the carve-out itself at the effective rate of domestic taxation, this being the GloBE ratio of covered taxes (including corporate income tax in particular) to accounting profit. With the amounts of both the carve-out (mechanically related to tangible assets and payroll) and accounting profit (essentially determined by business realities), tax design can have no effect on amount (1). As such, it represents an absolute minimum on the entity's tax liability. Only amount (2) can be directly affected by domestic tax design, through the total liability of covered taxes. Reducing these will still convey some benefit to investors, but the effect is reduced: if the carve-out is 40 per cent of accounting profits, for instance – which it was suggested in section B is broadly plausible – then cutting covered taxes by \$1 benefits the investor by only 40 cents.⁵² At a lower carve-out (e.g. 5 per cent) the effect is correspondingly less (2 cents).

Through this route incentives continue to benefit the investor despite the topping up under Pillar II. However, there are downsides and risks in considering a reduction in covered taxes. The benefits to investors will fall as the carve-outs are gradually reduced over the coming decade. More fundamentally, simply reducing corporate taxation will have implications for the taxation of the many firms, including domestic firms, that are out of the scope of Pillar II. In principle, this could be limited by restricting access to reduced corporate taxation to firms that are directly affected by Pillar II (including, to avoid non-discrimination issues, domestic ones) – perhaps by tying it to taxation under the QDMTT. Beyond the legal issues this might raise, it would be politically difficult: observers are likely to notice the corporate tax break being given to large MNEs more than they will the top-up that leads MNEs to pay more.

While bearing in mind those downsides, it is important to note that some traditional tax incentives will serve to reduce covered taxes and so will continue to have some effect. In the example above, the \$1 reduction in corporate tax might come, for instance, from application of a preferentially reduced rate. That will still benefit the investor – but by only 40 (or 5) cents, not, as at present, by the full \$1.

Covered tax payments – primarily, domestic corporate tax – can be reduced by either lowering the applicable statutory rate or narrowing the tax base. For the impact on the affiliate's total tax liability, it is immaterial which path is taken. It is only the amount of covered taxes that enters the calculation, not how they are computed. In terms of the marginal effective rate, however, both rate and base matter – but essentially just as they do now in the absence of the global minimum tax (with an investment-based case for corporate tax structures that imply low METR, as set out in section A).

Accelerated depreciation, however – a common form of incentive – is treated differently (section C.4). The attraction of accelerated depreciation for investors is that, without changing the total value of depreciation allowances over the lifetime of the investment it brings them forward in time, and so increases their present value. Under Pillar II, an adjustment for deferred taxes negates the effect this would otherwise have on the calculation of covered taxes (and the same is true for other incentives that operate through similar timing effects). While the impact on the top-up tax is thus undone, accelerating depreciation still conveys a benefit to investors, to the extent of the carve-out, in terms of their domestic tax liability.

Worth noting too is that in one case traditional tax incentives will continue to have their full effect – though its practical importance may well be limited. This is the case in which other members of the same MNE operating in the same country pay a sufficient amount of covered taxes for the ETR of all within-country entities to exceed 15 per cent. There appears, in principle, to be some incentive for MNEs to structure themselves to exploit this feature.

Refundable tax credits can also be used to benefit investors.

The model rules do include one mechanism by which total tax liability can be reduced below the otherwise-absolute minimum of 15 per cent on profit in excess of the carve-out. This is by offering tax credits (provisions that reduce liability dollar for dollar)⁵³ that are refundable, meaning that, if the credit exceeds the tax liability, the investor receives a payment from the government. Refundable tax credits do not reduce covered taxes in the way just described,⁵⁴ but instead are taken to increase accounting profit. That reduces the ETR used to determine the amount of the top-up, while also increasing the base to which that top-up applies. The net effect, taking account of the credit itself, can be to reduce total tax payable below the otherwise-absolute minimum.⁵⁵ In effect, refundable tax credits are treated like cash grants, i.e. as an increase in the firm's income.

It is not yet fully clear how much scope refundable tax credits might provide for incentivizing investment. The refundability provision is critical: a government seeking to encourage investment in this way would need to recognize that, should the credit exceed tax liability, it will need to make a payment to investors.⁵⁶ Outright grants may be the more transparent route to achieving the same effect.

Reducing non-covered taxes remains an option – but not all taxes bear on investment.

With the application of Pillar II increasing the average effective rate paid by affected affiliates, the impact on investors of taxes that are not covered by the agreement may become more prominent. From the perspective of investment promotion this calls for consideration of non-covered taxes too. One possibility is to cut them; however, the danger in doing so – beyond the loss of tax revenue – is of reducing taxes that convey little real benefit to investors because they do not bear the real burden they impose.⁵⁷ An additional possibility is to restructure non-covered taxes into covered taxes, thereby reducing the top-up while having little effect on total domestic liability.

Precisely which of the non-covered taxes are most important in this context will be country- and sector-specific. In some cases, it may be customs duties; in the extractive industries it may be royalties, with pressure to rebalance towards income-type taxes that would be covered. In many developing economies, thought may also need to be given to the minimum taxes that are often levied on turnover, perhaps converting these too to income-type taxes.⁵⁸

c. Indirect effects of Pillar II

Higher-tax countries will also need to strategically respond to the changing tax-investment landscape.

Higher-tax countries will clearly be relatively less exposed to the impact of Pillar II, but they will still be affected as a result of two dynamics. The first is the reduction in outward profit shifting, leading to an increase in the FDI-level ETRs on the income generated by inward FDI. The second is the possible presence in such countries of a subset of foreign affiliates that do face an ETR below the minimum, even if the national average ETR is above the minimum. Both factors – a key insight of the empirical analysis in section B – can significantly increase the corporate taxes paid by MNEs on FDI taking place in higher-tax countries. Most notably, in developing countries, the role of reduced profit shifting in the increase of the average FDI-level ETR caused by Pillar II is dominant.

This means that higher-tax countries are not spared from the potential downside effects on investment caused by the introduction of the Pillar II minimum. The empirical analysis shows that, as a consequence of the increase in FDI-level ETRs associated with Pillar II

(14 per cent globally in the baseline estimate), the overall amount of investment may decrease by 2 per cent, or up to 3 per cent under more pessimistic assumptions. Thus, when evaluating the potential impact of and response to Pillar II, high-tax countries should consider all relevant aspects beyond the headline average national tax rates. In a generalized context of increasing taxation on FDI, specific measures may be needed to support investment and shift the focus from fiscal measures to other investment facilitation tools. This is true for low-tax countries and high-tax countries alike.

In relative terms, though, even if they do not change their own tax policies, higher-tax countries are likely to become *relatively* more attractive locations for real investment. This is because their FDI-level ETRs, while they may increase, will generally fall relative to those in countries that are substantially affected by the minimum. The effect will no doubt be more marked for some countries than for others, but the general direction is clear. In revenue terms too, these higher-tax countries, especially if they are home to large MNEs, are also likely to gain through the profit-shifting channel: even if the topping-up is done by host countries under a QDMTT, higher tax countries become less vulnerable to outward profit shifting.

These countries may be able to do even better by changing their tax policies. The key question here is whether they will find it in their interests to raise their tax rates in a post-Pillar II world (or reduce them less than they otherwise would) or, to the contrary, to reduce them. The latter possibility – that the floor set by the minimum will also prove to be a ceiling – has troubled some observers who see current corporate tax rates as generically too low. The answer to this question also matters for low-tax countries that are directly affected by the minimum. To the extent that higher-tax countries respond to the minimum by raising their rates, that will convey an indirect benefit to low-tax countries, mitigating the effect of their own need to raise rates. Indeed, for countries that are initially only modestly below the minimum, it is possible that this effect, arising from the strategic response of countries that are not affected directly by Pillar II, will mean that they too benefit from adoption of the minimum tax.⁵⁹

The likely direction of response by higher-tax countries remains one of the imponderable aspects of implementing Pillar II. On the one hand, higher-tax countries have less to fear from paper profits and real investment being shifted to lower-tax countries, reducing pressures on them to keep their tax rates low; higher taxes abroad may thus lead to higher taxes at home (the case of “strategic complementarity”). On the other hand, the increased tax revenue that these countries are likely to experience at their initial tax rates creates some fiscal space to cut those rates in order to compete for investment more aggressively: higher taxes abroad then lead to lower taxes at home (“strategic substitutability”).⁶⁰

Existing empirical evidence provides little guidance as to which of these forces is most likely to dominate. There is some sign of strategic complementarity in headline rates of corporation tax. But the adoption of a generalized minimum has no precedent, so that experience is an inherently unreliable guide. Different countries may react differently, depending on the relative weight they attach to revenue and investment promotion objectives. Yet, the need to enhance revenue collection has been a primary motive for the development of Pillar II, and the deceleration of reductions in statutory corporate tax rates suggests a diminished appetite for corporate tax cuts. In the current fiscal climate, few governments are expected to react to a revenue increase induced by actions elsewhere by cutting rates and effectively transferring that additional revenue in large part to the domestic private sector; some have indicated an intention to increase statutory rates. This reduces the risk of the floor becoming a ceiling, at least in the short term.⁶¹

d. Implications for regional cooperation

Regional tax cooperation still has a role in facilitating investment and economic integration.

Regional economic integration efforts often lead to calls for coordination in corporate taxation in order to facilitate cross-border investment within the bloc while limiting potentially mutually damaging tax competition between members. In Europe, such proposals date back to the 1960s; however, only in Africa, in CEMAC and WAEMU, have measures of this kind been adopted. And they have had only mixed success. In WAEMU, for example, the statutory rate is restricted to between 25 and 30 per cent, and there are provisions for a common base. Any intent to limit downward tax competition has been undermined by the exclusion from the restriction of incentives provided for in investment codes or other laws. As a consequence, tax holidays, for example, have continued.⁶²

This difficulty in implementing a minimum tax at the regional level reflects an inherent limitation of agreements to restrict tax competition among only a subset of countries: the problem posed by outsiders. While countries participating in such an agreement may benefit, by worsening their position relative to non-participants they convey even greater benefits to those remaining outside of the agreements.⁶³

The global nature of Pillar II, implied by participation of the largest capital exporters, means that it faces no outsider problem. Yet, there will remain a potential role for regional cooperation, to establish and implement within-bloc minimum levels of taxation that are consistent with investment promotion.⁶⁴

One reason is that Pillar II applies only to the affiliates of the largest MNEs. The significance of in-scope affiliates varies across regional blocs and across countries but, in all, many firms will remain out of scope. The case for coordination therefore does not disappear. In fact, the lesser ability to compete to attract entities of the largest MNEs may make competition for these out-of-scope firms more aggressive, reinforcing the case for coordination towards an effective minimum applicable to them. Just as Pillar II naturally provides an opportunity to review policy towards tax incentives, so it may also usefully prompt a parallel review of regional coordination agreements.

In addition, implementation of Pillar II may be facilitated by regional cooperation on a range of practical issues, supporting investment and economic integration within a bloc by easing MNE compliance costs and enhancing certainty in their tax treatment. This might involve, for instance, developing common templates for national QDMTTs, refundable tax credits or accounting standards. Regional cooperation can also be useful in fostering a common understanding of the new tax environment and in presenting a common position – not only within the Inclusive Framework but in other influential fora, such as the United Nations Committee of Experts on International Cooperation in Tax Matters – on technical issues that remain to be resolved.

e. Implementation issues

Complexities related to implementation should be timely addressed to ensure investor certainty.

The two-pillar agreement is not a simplification. Significant changes to tax and investment policies will be needed. A period of adjustment and some uncertainty is inevitable. Several tax administrations of developed economies have already indicated that the 2023 target for implementation is very ambitious, and this is surely even more true for weaker-capacity countries. Moreover, significant political hurdles to final adoption of Pillar II remain. This may create a natural inclination for countries to “wait and see”, but the potential impact is so

great that they would be well advised not to delay in reviewing the proposals (and providing input into any final changes), evaluating their policy options and preparing their responses. Such preparedness will also help in dealing with MNEs, which also face increased uncertainty, and so help alleviate the tax uncertainty that can act as a bar to investment. Not least, in this period of adjustment, it is important for policymakers to avoid missteps (such as, for example, extending long-lasting legal commitments to provide tax incentives) and reassure investors that they are aware of and sensitive to the concerns that they too will naturally have.

Moreover, although the tax rules have been agreed in principle, there may be further changes ahead. The model rules already embody a lengthy transition to the final carve-out rates, and the general expectation is that the minimum tax will come to affect an increasingly large set of MNEs. Many fine but important details of the arrangements also remain to be addressed. More fundamentally, while it is a remarkable achievement in multilateralism and consensus-building, the two-pillar agreement is nonetheless a compromise between several quite different approaches to international business taxation, including in Pillar I elements of arms-length pricing, taxation in the destination country and some use of formulaic methods as well as the minimum tax in Pillar II itself. It is possible that the tensions this compromise creates will eventually lead to further reform of international tax arrangements. The minimum tax element, however, is to a large degree separable from the rest. Once adopted, it seems likely to become a permanent and increasingly significant element of the international tax framework and, hence, for investment strategies.

Looking ahead, it will then be key for developing countries to strengthen mutual support and cooperation as well as technical capacities to increase their influence in the negotiation of the next steps and the follow-ups of Pillar II within the context of the Inclusive Framework (Christensen et al., 2022).

f. Effects on tax competition

Tax competition is blunted, but not ended – and will likely take new forms.

As laid out earlier, Pillar II sets an (almost) absolute minimum tax liability for in-scope affiliates. It substantially reduces, though it does not necessarily wholly eliminate, the opportunities for shifting profits to low-tax countries; hence it also reduces the motivation for reducing tax rates in order to benefit from (or prevent) profit shifting. SEZs, tax holidays and other forms of tax incentives, where they are affected, will convey much lower tax benefits to investors. The floor may even enable some countries to raise their tax rates, as they become less constrained by the downward pressures they felt in the absence of the minimum. In these respects, Pillar II thus will reduce international tax competition.

But tax competition is not eliminated. Scope remains for reshaping domestic tax regimes to encourage investment, particularly real investment. Tax competition is thus set to continue, particularly for real investment. Reducing covered taxes – primarily the CIT – can bring effective rates closer to the absolute minimum. And reducing non-covered taxes, or converting them to covered ones, can also dull the impact on affected affiliates.

Domestic measures can also still be crafted to benefit the many investors not directly affected by the global minimum tax. In those cases, traditional tax incentives retain their full force. In fact, with a reduced ability to use tax measures to compete for investment by the largest MNEs, pressures to compete for the smaller ones may intensify.⁶⁵

Measures beyond tax policy also seem likely to receive heightened attention. There may be more focus on tax administration processes and practices that reduce compliance costs for firms and increase certainty about their tax treatment, addressing what survey evidence shows are significant concerns for many investors, including in developing countries.

Finally, a lessened ability to lure investment by large MNEs through tax incentives may lead countries to use spending measures instead, whether tailored to particular investments (providing easy road access, for instance) or improving general infrastructure (reliability of energy supply, for example). Experience shows that spending measures can be used very aggressively to compete for large investments. Tax competition may thus shift towards competition in public spending. This can be beneficial: spending measures are generally seen as more transparent than tax incentives, and social returns from infrastructure investments are high in many countries. But there are risks too. Public spending may become distorted by investment objectives (e.g. too many airports and not enough health spending),⁶⁶ and governance issues arise in relation to spending just as they do in relation to tax incentives. Ultimately, mutually damaging international competition may re-emerge in a different form – and Pillar II may result in even greater importance of measures to control and monitor public spending.⁶⁷

2. Challenges for investment policymakers and institutions

The adjustments to fiscal investment policy discussed above have major implications for national investment policymakers and institutions dealing with investment promotion, and for international investment policymakers and treaty negotiators.

Investment promotion agencies (IPAs) will see important changes in their standard toolkit. Worryingly, the current awareness of the reforms among IPAs and SEZs is still very low. UNCTAD's annual IPA survey, carried out in the first quarter of 2022, revealed that more than one third of respondents were not yet aware of the reforms, and only about a quarter had begun an assessment of the implications. Given the planned start of the implementation of Pillar II in 2023, investment policymakers and institutions will need to act quickly. At a minimum, they should review their current use of incentives, evaluate the implications for their portfolio of existing investors and identify the best approach for both investment retention and promotion (box III.10). This review should go hand in hand with strengthening the overall governance of incentives, in any form (fiscal, financial or other). In particular, incentives should be granted on the basis of a set of pre-determined, objective, clear and transparent criteria. Their long-term costs and benefits should be carefully assessed prior to implementation, and they should be periodically reviewed to ensure continued effectiveness in achieving the desired objectives. Finally, their administration should be the responsibility of an independent entity or ministry that does not have conflicting objectives or performance targets for investment attraction (UNCTAD, 2015). SEZ authorities and management companies, which rely on very much the same toolkit, will have to follow suit.

The implications of Pillar II are not limited to national investment policies. Negotiators of international investment agreements (IIAs) may come to play a significant role in enabling the necessary national policy adjustments. Where countries have committed, contractually or in practice, to providing preferential tax treatment to investors, removing such benefits to apply top-up taxes or rescinding fiscal incentives could potentially lead to investor–State dispute settlement cases. Changes to preferential tax regimes have been challenged by investors in international arbitration under IIAs in the past (e.g. *Micula v. Romania*; *Charanne v. Spain*; *Eiser v. Spain*; *Antaris Solar v. the Czech Republic*). There is no clear jurisprudential trend in investor–State dispute case law concerning changes in tax regimes, which increases unpredictability for States that wish to make changes to their tax regimes.

Contrary to stabilization clauses in State contracts, which protect investors against perceived adverse legislative change, IIAs do not include explicit obligations that guarantee the stability of the regulatory regime, and they rarely include obligations relating specifically to taxation. However, most IIAs include the fair and equitable treatment (FET) standard,

and many also contain umbrella clauses. The FET standard can be interpreted as including elements of legal stability. Changes in laws perceived as arbitrary, sudden or radical can be challenged by investors as breaching FET. Umbrella clauses oblige States to honour commitments they have undertaken with regard to the investment. This obligation generally relates to contractual obligations; in a limited number of cases, umbrella clauses have been interpreted as extending to the stability of the general legislative framework.

States can minimize potential challenges in various ways. First, they may incorporate references to and clarifications of the relationship between IIAs, State contracts and the QDMTT in a multilateral treaty instrument, to ensure that the tax implementation is not considered as breaching these commitments. Such a multilateral instrument could be envisaged as part of the OECD/G20 Inclusive Framework on BEPS, although that would benefit only Inclusive Framework participants. Second, they may clarify the relationship between IIAs and the QDMTT bilaterally. This can be done through either IIA amendments

Box III.10. How should IPA and SEZ managers respond to the global minimum tax?

The global minimum tax is due to take effect from 2023, so the need for action is now. As essential first steps:

- The changes envisaged are profound and highly technical. Obtain expert tax advice and seek collaboration with institutions such as UNCTAD.
- The changes raise fundamental issues of tax policy and administration. Seek views and advice from the ministries of finance and tax administration.
- Investors will be wondering how their tax treatment will change, and how to react. Engage with relevant stakeholders, including MNEs, to convey the message that serious evaluation is under way and that law and regulations will be adjusted in a transparent and participatory way.

Drawing on this support and dialogue, assess the likely impact of the global minimum tax:

- Advocate for a comprehensive mapping of all tax incentives currently offered and the entities making use of them, including the extent of their activities and the revenue directly forgone as a result of the incentives.
- Identify all cases in which taxes paid are likely to be less than 15 per cent of an entity's accounting profits, as adjusted under the GloBE rules.
- Assess, where the rate is less than 15 per cent, whether the increase in total tax payments implied by the global minimum is likely to be material for the investor.
- Identify all cases in which legal commitments have been made to provide incentives for some period of time, and obtain legal advice as needed (because, from the perspective of government revenue, their effect may be undesirable).

To develop the most effective tax framework for investment promotion in the changed global environment:

- Review the effectiveness of incentives in attracting investment relative to the revenue loss they imply. Independent expert advice is the most credible way to do this.
- Recognize that Pillar II will fundamentally and substantially reduce the benefit of tax incentives to investors. The rules of the investment promotion game will be fundamentally changed.
- Strengthen the overall governance of tax incentives. Make sure incentives are granted on the basis of a set of pre-determined, objective, clear and transparent criteria.
- Consider, and discuss with the finance ministry, possible tax policy changes to support investment promotion: reviewing corporation tax, reviewing other taxes not covered by the agreement (but only if there is evidence that doing so will affect investor costs) or restructuring taxes to be covered.
- Recognize that it may be inappropriate to restrict these changes to affected entities and too costly in revenue to extend them to all firms.
- Examine how the tax administration can provide greater certainty and predictability to investors.

Perhaps most important, explore the potential for non-tax measures to promote investment, including the following:

- Investment facilitation measures, including information provision, transparency on rules and regulations, and streamlined administrative procedures for investors
- Spending on local infrastructure (such as energy supply and transport facilities) and development of local human capital
- Advocacy and support for improved tax services, such as the speed with which value added tax refunds are paid and tax disputes resolved

Source: UNCTAD.

or joint interpretative notes related to IIAs. Third, in case of a dispute arising under an IIA, they can argue that the QDMTT represents a global consensus on corporate taxation, embraced by States and international organizations worldwide.

Due to the risk of costly challenges to top-up applications arising from potential tax-related ISDS cases, policymakers would do well to take potential conflicts into account as part of the IIA reform process and under the Inclusive Framework.

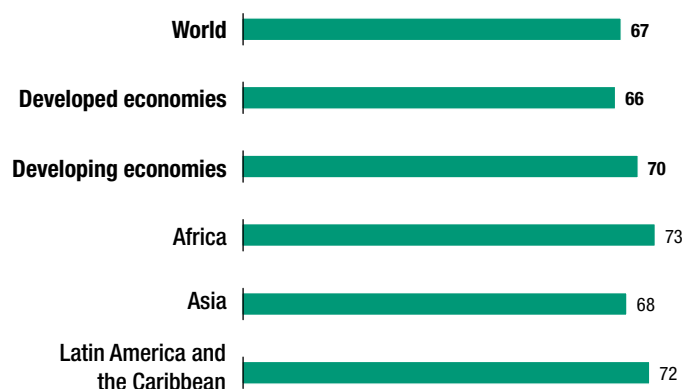
3. Strategic investment policy implications

The strategic implications of the reforms for investment promotion are important. The global minimum tax will apply only to MNEs with consolidated revenues over €750 million. This threshold may seem high, but it captures more than two thirds of new investment projects carried out over the past five years, with even higher shares in developing regions (figure III.18). Moreover, even if initially many firms will remain out of scope, the fact that more and more FDI is carried out by the largest MNEs (overseas investment by SMEs is in decline; see chapter I), combined with the likely gradual reduction of the threshold, could mean that over time almost all FDI will be subject to the minimum.

Attracting international investment in productive assets, especially in GVC-intensive manufacturing sectors, will become harder. Already in recent years, global investment in such activities has seen a backlash against production offshoring and increased barriers to cross-border trade and investment. The removal of fiscal arbitrage opportunities for efficiency-seeking firms, for which investment decisions are often driven by small margins, could mean that developing economies looking to attract investment to build productive capacity and to increase participation in GVCs will be competing for a shrinking pool of such investment.

That observation is critical for industrial policies. The “transformation of international production” (see *WIR20*) that was already under way – characterized by reshoring, regionalization and resilience-driven restructuring – could be reinforced and accelerated by the tax reforms. Industrial policies can no longer rely exclusively or predominantly on attracting efficiency-seeking investment by large-scale industrials and in GVC-intensive sectors.

Figure III.18. Share of greenfield investment projects by MNEs with annual revenues of more than €750 million, 2015–2021 (Per cent)



Source: UNCTAD, based on information from the Financial Times Ltd., fDI Markets (www.fdimarkets.com).

In the meantime, domestic and regional market-seeking investment, smaller-scale, asset-light digital investment, and investment in green and blue economies, as well as investment in domestic services and infrastructure, may provide more opportunities for promotion and targeting. All of these are less affected by the tax reforms, at least initially.

While, on the one hand, the partial depletion of the investment promotion toolbox will make attracting investment more difficult for some countries, on the other, competition from low-tax locations will be much reduced. That could benefit developing economies which, on average, have higher ETRs. Nevertheless, as competition shifts from tax levers to alternative investment determinants, and from fiscal incentives to financial incentives, many could still find themselves at a disadvantage because they are unable to afford the substantial upfront financial commitments associated with infrastructure provision or subsidies. Levers such as easing administrative procedures for tax payment and reducing tax uncertainty, as well as improving regulatory transparency and streamlining in general, will become more important. More attention will thus be paid to investment facilitation, also driven by the prospective agreement on investment facilitation for development under discussion among more than 110 members of the World Trade Organization.⁶⁸

The need to review the portfolio of incentives on offer to foreign investors provides an opportunity to rethink them wholesale. In recent years, UNCTAD has urged countries to engage in such an evaluation, with a view to shifting incentives towards the promotion of investments with better performance in terms of sustainable development – specifically linking incentives to the Sustainable Development Goals (SDGs). The shift from reduced-rate incentives and exemptions towards incentives linked to real capital expenditures – which are affected less by Pillar II – fits well with this objective, because investment in SDG sectors is often capital intensive and relatively low margin. It should be noted that the degree to which SDG-relevant investment will be affected by Pillar II – the extent to which relevant investments and investors are in scope – is not yet fully clear, because a significant part of such investment is carried out through international project finance and split between multiple investors, including financial institutions.

The SDG financing imperative raises further important strategic considerations. It highlights the trade-off that could emerge – under specific circumstances and particularly in low-income countries – between the need to boost domestic resource mobilization for the SDGs and the need to promote investment in SDG-relevant projects. Investments in some sectors important for the SDGs or for climate change mitigation and adaptation can yield social returns in excess of private and thus call for incentives or subsidies, or they may have risk-return profiles that require public support to make them viable. In LDCs, the upfront financial cost of subsidies are usually unaffordable, and fiscal advantages may be the only available lever. In such cases, careful consideration of the flexibilities that exist under the Inclusive Framework and the Pillar II rules is warranted.

What flexibilities exist has been briefly discussed in the earlier section on fiscal investment policy responses. The strategic options for countries appear to be (i) joining or not joining the Inclusive Framework and signing up to Pillar II, and (ii) applying or not applying top-up taxes. In reality, the mechanics of Pillar II are such that the options for individual countries are very much constrained by the fact that the actions of investor's home countries can undo any advantage for investors that host countries might provide through preferential tax rates.

The flexibilities and mitigating factors within the Pillar II framework are important to bear in mind for the promotion of investment in sustainable development. A few forms of fiscal incentives, such as accelerated depreciation, will still be effective, although the most common forms of investment incentives – tax holidays and exemptions – will be severely affected.

The carve-out related to investment in physical assets will be an important mitigating factor for SDG investment. By definition, investments in SDG or climate change sectors such as renewable energy, water management or other forms of adaptation will be highly capital intensive and hence have a high carve-out (i.e. the expected increase in ETRs will be lower).

Still, in moving forward with implementation, the need to promote investment in the SDGs and in climate change mitigation and adaptation should be front of mind for policymakers, at the same level as domestic resource mobilization.

* * *

This chapter has shown that the introduction of a global minimum tax in BEPS Pillar II will have significant implications for FDI and for investment policy. The chapter has provided a guide through the complex reforms and indications as to possible fiscal investment policy responses. It has categorized investment incentives, describing the impact of Pillar II for each category. The concluding section highlighted the potential implications for industrial policy, for the promotion of sustainable investment, and for investment promotion institutions and international investment agreement negotiators.

The BEPS reforms are a major achievement of multilateral policymaking on a critical issue that is a priority for the international community. The reforms have the potential to bring substantial benefits, including to developing economies, in terms of increased government revenues and reduced distortions to international business.

Three final considerations for tax and investment policymakers and for the international community engaged in the reform process are worth highlighting:

1. As observed in this chapter, developing economies have obtained an important instrument in the Pillar II rules allowing them, in principle, to apply top-up taxes first, before investor home countries can do so. Yet, some developing countries that have weaker tax collection capabilities or that are more constrained by old-generation IIAs may be unable to exercise this benefit, at least for a foreseeable initial implementation period. Where this is the case, developed home countries may wish to consider pooling any revenues raised through the IIR and converting them to development assistance.
2. As discussions are ongoing in the Inclusive framework, due attention should be given to the constraints to implementation that may be posed by IIAs. A multilateral solution would be the most effective option to avoid disputes arising from host countries removing or reducing preferential tax treatment for investors. The IIA regime itself is also undergoing a process of reform. The urgency brought on by the implementation of Pillar II may provide further impetus to this process.
3. In developing countries, many institutions will struggle not only with the evaluation of policy options and the implementation of the – highly technical – tax reforms but also with the implementation of investment policy responses. International support and technical assistance in both areas, including from organizations such as UNCTAD, will be crucial to ensure that the potential benefits from the reforms are realized, while negative effects on international private investment for sustainable development are minimized.

NOTES

- ¹ A further complication that arises in the cross-border setting is the potential application of taxes by both the host and the home country (or – language differs – the “source” and the “residence” jurisdiction). Note that this chapter will generally prioritize investment-driven terminology over tax-driven terminology; i.e. the notion of “country” or “economy” over that of “jurisdiction” and the notion of “home” and “host” over those of “residence” and “source”. For the purpose of this chapter, however, these concepts can generally be used interchangeably, but when this is not the case, the precise qualification will be applied.
- ² Suppose, for instance, that the investor requires a 5 per cent rate of return. In the absence of tax, the investor would invest up to the point at which the pre-tax return is also 5 per cent. Imagine, though, that taxation leads the investor to invest less, only to the point at which the pre-tax return is 7 per cent. Then the METR, expressed in absolute terms, is 2 percentage points; expressed relative to the required return, it is 40 per cent. By contrast, the AETR reflects tax paid on the totality of profits, not just on the last dollar, and will typically be higher.
- ³ For elaboration on this point, see chapter 1 of Devereux et al. (2021).
- ⁴ Elements of cash-flow taxation appear in, for example, the United States tax reform of 2017, which provided for immediate expensing while limiting – though not eliminating – interest deductibility. Another form of rent tax is the Allowance for Corporate Equity (which gives a tax deduction for a notional required return on equity), experience which is assessed in IMF (2016). Explicit rent taxes are also quite widely used in the extractive industries.
- ⁵ The scale decision in any country is independent of the METR in others (unless the MNE is constrained in the total amount of investment it undertakes). Cross-country comparisons of METRs are thus less relevant to understanding cross-border investment than are such comparisons of AETRs. There is one however respect in which the METR affecting FDI may differ from that affecting a purely domestic investment. Expanding the scale of an MNE’s investment in one country – the exercise underlying the METR – may affect its tax liability in others (expanding operations in one affiliate, for example, may require diverting scarce managerial expertise from others); see Keen et al. (forthcoming).
- ⁶ Also from James (2014), cited in figure 1 of Platform for Collaboration on Tax (2016a) and table 2 of Keen and Mansour (2010): about 85–90 per cent of low-income countries offered tax holidays in 2015 as compared with 75 per cent in 2005.
- ⁷ To the extent that countries are able to use tax incentives to compete aggressively for especially mobile capital, this may result in less aggressive competition for less mobile capital. See Keen and Konrad (2013), which, more generally, provides a review of the theory of tax competition and responses to it.
- ⁸ The evidence on interactions in tax-setting is reviewed in Leibrecht and Hoggatterer (2012) and OECD (2020). The numbers cited are from Devereux et al. (2008), who find, for a sample of developed countries, a response of 0.34–0.67 points to a 1-point increase in the average statutory rate abroad; in a sample that includes developing countries, Crivelli et al. (2016) find a response of 0.25–0.3 points. IMF (2022, online annex 2.2) reaches broadly similar conclusions.
- ⁹ Some (notably Brennan and Buchanan, 1980) have argued that downward tax competition can be socially beneficial because it limits the ability of governments to finance wasteful spending. Yet, given governments’ pressing revenue needs, now amplified by the pandemic, and the increased use of fiscal rules to control aggregate tax and spending, this argument is now rarely heard. There may also be circumstances – for example, when domestic firms are held largely by foreigners – in which international considerations lead countries to set taxes not lower but higher than would otherwise be the case (a possibility highlighted by Mintz, 2022b).
- ¹⁰ Indeed, this was arguably the objective of the BEPS project prior to the Pillar II proposal.
- ¹¹ As set out in the model rules and commentary issued by the OECD (2021, 2022a).
- ¹² More precisely, the calculation is across all entities within a particular country that belong to the same multinational group.
- ¹³ These are initially at rates of 10 per cent for payroll and 8 per cent for tangible assets, transitioning gradually to 5 per cent on each in 2033.
- ¹⁴ Leaving aside here tax refunds of various kinds.

- ¹⁵ This is similar to (and likely inspired by) the GILTI (Global Intangible Low-Taxed Income) provisions of the 2017 United States tax reform, with the difference that those provisions apply the minimum with blending across affiliates in different countries (rather than, as in Pillar I, country by country). Controlled foreign corporation rules – which bring an affiliate’s earnings immediately into taxation in the parent country – have a similar effect.
- ¹⁶ These issues relate, for instance, to the treatment of deferred taxes (ones that are reasonably expected to be payable in the future) and – an issue that has as yet received little attention – the differences between the various accounting standards that multinationals may apply.
- ¹⁷ At the time of writing, draft rules for the STTR had not yet been issued.
- ¹⁸ Relating, for instance, to the treatment of “deferred” taxes (ones that are reasonably expected to be payable in the future) and the differences between the various accounting standards that multinationals may apply (an issue that is receiving increased attention).
- ¹⁹ This will be the case, for instance, if all taxes are initially zero and the carve-out more than covers the investors’ required return: the investor is then in effect able to deduct more than the full costs of investment – in effect, a subsidy from the government that makes the METR negative.
- ²⁰ In general, if the tax base is such that the initial METR is positive, an increase in the statutory rate of tax increases the METR. Simulations by Bares et al. (forthcoming) and Mintz (2022a) find an increase in the METRs for countries directly affected by Pillar II.
- ²¹ ETRs based on the common ratio between taxes paid and reported profits are sometimes referred to in this chapter as “standard ETRs” to emphasize their difference from related, but nonetheless different, tax rates such as the FDI-level ETR or the GloBE ETR.
- ²² CbCR was introduced in the context of the BEPS project (Action 13). The data set contains information about the activities of large MNEs (i.e. with annual revenues over €750 million) at the bilateral parent-host country level.
- ²³ The sample includes the 193 host countries directly covered by CbCR data from 2017; a few additional ones were imputed using available STR data. The list of the 39 OFCs is from Tørsløv et al. (2021), largely consistent with other OFC lists, including that adopted in *WIR15*.
- ²⁴ Evidence reported in chapter II (section II.C) confirms that tax incentives are usually not granted to foreign firms only; even when their main objective is to attract foreign investment, their perimeter tends to cover both foreign and domestic firms.
- ²⁵ In each host country, however, average ETRs disguise significant heterogeneity across ETRs paid by individual foreign affiliates. Some foreign affiliates will face an ETR below 15 per cent even when the country average is above that level – a compositional effect not captured by country-level analysis. The treatment and interpretation of within-country variance in the analysis of ETRs is one key methodological and empirical issue in this analysis (see discussion in box III.7 and Auclair and Casella (forthcoming)).
- ²⁶ In theory, profit shifting does not occur only through the use of OFCs. However, the bulk of it is coordinated by a limited set of countries that qualify as OFCs (*WIR15*).
- ²⁷ As the impact analysis is entirely based on FDI-level ETRs, the text may refer only to “ETR” or “ETR impact”, omitting the qualification “FDI-level” when the context is clear. By contrast, the wording “standard ETR” is used to refer to the common ETR ratio (between average taxes paid and profits reported), if the context requires emphasizing the difference with the FDI-level ETR.
- ²⁸ The OECD EIA adopts an even more conservative assumption of no change in shares of profit shifting (OECD, 2020; Hanappi and Gonzalez Cabral, 2020). This scenario can be useful to set a theoretical lower bound. In practice, it is unlikely, and its occurrence would imply that Pillar II would be ineffective in tackling profit shifting, an outcome that is neither realistic nor desirable. In all circumstances, the gap in terms of the estimated impact of Pillar II on FDI-level ETRs between the most extreme cases – “full reversal of profit shifting” and “no impact on profit shifting” – is relatively limited, at less than 1 percentage point on average (see Casella and Souillard, 2022).
- ²⁹ The empirical evidence on profit shifting – largely caused by a limited set of countries with very low ETRs – lends some credibility to this scenario. In addition, the reputation and transaction costs associated with profit shifting are high for MNEs and expected to grow further as a consequence of the BEPS process.
- ³⁰ In the upper-bound scenario, it is more intuitive to neatly separate the impact of the profit-shifting channel and the ETR channel. First, profits are “brought back” from OFCs to the host countries where they are generated; the corresponding increase in ETR is due to the application of host countries’ (higher) ETRs to the entire FDI income base (profit-shifting channel). Second, the host countries’ ETRs are adjusted upward, if need be, to align with the minimum tax rate, given the entire FDI income as the tax base (ETR channel).

- ³¹ To exemplify, consider the case of an investment for which part of the income is reported in the host country and part is shifted to an OFC. On shifted profits, the carve-out must be close to zero, as the underlying substance is expected to be small or negligible. Hence the minimum top-up fully applies (without the carve-out exclusion). In this context, the introduction of the carve-out does not change the motivation to reduce profit shifting, relative to the case without a carve-out. If anything, it further strengthens it because the OFC (which does not benefit from the carve-out) becomes relatively more expensive. In the upper-bound case, profit shifting will still be fully eliminated so that the profit-shifting channel will continue to exert its full impact (2 percentage points). Instead, the ETR channel will be affected, as the post-Pillar II average ETR in the host country may be reduced by the carve-out. In the extreme case of a 100 per cent carve-out, no top-up applies and thus the impact of the ETR channel is zero. The overall impact then remains confined to the profit-shifting channel, at 2 percentage points, a floor bounded away from zero. More generally, depending on the share of the carve-out in the host country, the overall impact ranges from 2 percentage points (100 per cent carve-out) to 3 percentage points (no carve-out). Similar considerations apply to the alternative, more conservative, scenario of a partial reduction of profit shifting.
- ³² Bares et al. (forthcoming), adjusting the AETR for profit shifting in a different way from that here, find that dispersion may actually increase at modest levels of the minimum (because those in higher tax countries are affected by the reduced opportunities to shift profits outward).
- ³³ This simulation of the revenue impact is done by applying for each host country (non-OFC) the estimated increase in FDI-level ETRs to the (FDI-)income base reported by CbCR data (2017).
- ³⁴ Recalling figure III.8, under the baseline scenario, the growth in the average FDI-level ETR caused by Pillar II is 16 per cent in developed economies against 9 per cent in developing ones.
- ³⁵ Similar estimates have been produced by Damgaard et al. (2019) and Turban et al. (2020).
- ³⁶ The analysis in *WIR15* observes a negative relationship between direct investment from OFCs and the reported rate of return on this investment in host countries, which is indicative of FDI-enabled profit shifting (see also Bolwijn et al., 2018; Janský and Palanský, 2019).
- ³⁷ UNCTAD FDI statistics (stock and flows) will be mostly unaffected as they already remove FDI in and by SPEs (as reported by countries) and Caribbean financial centres.
- ³⁸ The GTED database is the first of its kind, collecting all publicly available data on tax expenditure provisions published by national governments worldwide from 1990 onwards, including many developing countries (as long as they report tax expenditures) (Redonda et al., 2022). One appealing feature of the database is that it reports all and only the information reported by countries in their tax expenditure reporting, limiting as much as possible the degree of discretion while ensuring significant coverage. As a major downside, the results are affected by heterogeneity in the quality of reporting across countries, particularly between developed and developing countries. Importantly, the GTED database also provides information on the forgone revenues associated with each tax expenditure, whenever reported. While the primary approach adopted in this analysis is based on a simple “counting”, the main findings do not change substantially when results are “weighted” by forgone revenues.
- ³⁹ The notion of tax expenditure is different from that of tax incentive, although the two are strongly linked. While the objective here is to map and size the relevant categories of tax incentives, the empirical analysis uses tax expenditure data as proxies – mainly the number of provisions but also the corresponding forgone revenues, as reported by the GTED database.
- ⁴⁰ For example, it does not discriminate between foreign and domestic firms or between foreign affiliates of large MNEs and others. Throughout this section, incentives targeting taxes on corporate income – the broad perimeter of Pillar II – will be identified for convenience as “income-related incentives”, where the qualification “corporate” may be omitted when implied by the context.
- ⁴¹ The GTED database provides information on the main policy purpose of the tax expenditures, as stated by publishing countries. This information is available for about half of (corporate) income-related tax expenditure provisions. The list of objectives includes “attract FDI”. This category of objectives – only 2 per cent of the relevant sample – is expected to heavily underestimate the share of incentives aimed at attracting foreign investment, as a major part of them falls under other categories of policy objectives, such as “promote priority activities” or “promote priority industries”.
- ⁴² In addition, a de minimis exclusion may apply: the filing constituent entity may elect to deem the top-up tax as zero if, for that country, its average revenue is less than €10 million and the average of GloBE income or loss is less than €1 million in the current and the two preceding fiscal years.
- ⁴³ This exclusion exists because the industry is generally subject to special tax rules in a number of countries, which have introduced alternative or supplementary tax regimes for them outside the scope of CIT.
- ⁴⁴ Suppose that an MNE based in country X (ultimate parent country) has a foreign subsidiary in country Y. The subsidiary in country Y provides an interest-bearing loan to an entity in country Z. Country Z levies no WHT on outbound interest payments. The subsidiary in country Y realizes only interest income and is

subject to 10 per cent ETR under the GloBE rules. If we assume that country Y levies a QDMTT or that country X levies an IIR as the country of the ultimate parent, the lack of WHT in the ultimate source country Z would be offset by the minimum rate of 15 per cent in another country (country Y in an QDMTT scenario or country X in an IIR scenario).

- ⁴⁵ See *WIR99* on determinants of FDI and UNCTAD (2000) on importance of tax incentives to attract FDI.
- ⁴⁶ For details on the United States tax reforms and their impact on investment, see UNCTAD's Global Investment Trends Monitor Special Edition on Tax Reform in the United States (UNCTAD, 2018a), and *WIR18* (box 1.2, page 17).
- ⁴⁷ The only way to escape topping up, in the absence of a QDMTT recognized by others, would be to ensure a domestic GloBE ratio of 15 per cent. This, however, would actually imply a higher average tax rate than does the top-up tax (because of the carve out available under the latter).
- ⁴⁸ Though not addressed here, attention will also need to be given to the possible adoption of the STTR, balancing the additional protection from outward profit shifting that this may provide against the discouragement of inward investment; see Perry (forthcoming).
- ⁴⁹ Except for a few sectoral exceptions.
- ⁵⁰ This is the established view, for instance, of the IMF, the OECD and the World Bank. Their arguments are set out in Platform for Collaboration on Tax (2016a, b).
- ⁵¹ There are others too: the focus here is on those that are most evidently inherent in the structure of the envisaged arrangements.
- ⁵² If a QDMTT applies, it also costs the host country only 40 cents in forgone revenue, because the reduction in the covered tax ratio increases the amount of the top-up that the QDMTT enables the host country to collect. In the absence of QDMTT, the revenue cost to the host country would be the full \$1.
- ⁵³ A 60 per cent R&D tax credit, for example, reduces tax due by 60 per cent of the firm's expenditure on R&D.
- ⁵⁴ This is in contrast to non-refundable credits, or refundable credits that do not meet the qualifying conditions, which simply reduce covered taxes.
- ⁵⁵ An example may help. Suppose that the carve-out is zero, so that total tax is at its otherwise-absolute minimum of 15 per cent of accounting profit. Then, a \$1 tax credit conveys a direct benefit to the investor of \$1 while (by the addition to accounting profit) increasing the investor's liability by only 15 cents: a net gain of 85 cents.
- ⁵⁶ In order to qualify for the treatment just described, for instance, credits in excess of tax liability must be refundable within four years of their arising.
- ⁵⁷ The role of MNEs in "collecting" rather than "paying" taxes is touched on briefly in the *WIR15* discussion on the contribution of MNEs to government fiscal revenues (p. 182).
- ⁵⁸ See for instance Perry (forthcoming).
- ⁵⁹ The reason is that in this case the low-tax country is only negligibly affected by the induced increase in its own rate, since it has already chosen the rate that best serves its interests, given the tax rates set by others; however, tax increases elsewhere convey a non-negligible benefit (see Hebous and Keen, 2022). Other aspects of the welfare impact of minimum corporate taxation are addressed in Hines (2022), Janeba and Schjelderup (2022) and Johannesen (2022).
- ⁶⁰ See for instance Vrijborg and De Mooij (2016).
- ⁶¹ The effects of such strategic reactions might be considerable: IMF (2022a) finds that the addition to global revenues arising from strategic reactions by high-tax countries can be larger – given the strength of strategic complementarity suggested by the literature – than the gain assuming no change in their policies.
- ⁶² See Mansour and Rota-Graziosi (2013).
- ⁶³ See for instance Konrad and Schwedler (1999).
- ⁶⁴ It may also be that some regions come to find the rate of 15 per cent on in-scope affiliates to be too low. If so, in addressing this they will face the same problem of outsiders, but mitigated because the gap in effective rates created by more ambitious regional minima will likely be lower than it was when there was no minimum in force.
- ⁶⁵ In aggregate, it is even theoretically possible that the damaging consequences of tax competition will be exacerbated by adoption of a minimum tax applying only to a subset of investments. See for instance the discussion in Keen and Konrad (2013).
- ⁶⁶ Keen and Marchand (1997).
- ⁶⁷ This might mean for example, wider adoption of State aid rules similar to those of the European Union.
- ⁶⁸ WTO, "Investment facilitation for development", Informal Discussions, https://www.wto.org/english/tratop_e/invfac_public_e/invfac_e.htm.

