

Laudage, Sabine

**Working Paper**

## Corporate tax revenue and foreign direct investment: Potential trade-offs and how to address them

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# Corporate Tax Revenue and Foreign Direct Investment: Potential Trade-Offs and How to Address Them

*Sabine Laudage*

# Corporate tax revenue and foreign direct investment: potential trade-offs and how to address them

Sabine Laudage

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**Sabine Laudage** is a researcher with the research programme “Transformation of Economic and Social  
Systems” at the German Development Institute / Deutsches Institut für Entwicklungspolitik (DIE).

Email: [sabine.laudage@die-gdi.de](mailto:sabine.laudage@die-gdi.de)

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© Deutsches Institut für Entwicklungspolitik gGmbH  
Tulpenfeld 6, 53113 Bonn  
☎ +49 (0)228 94927-0  
📠 +49 (0)228 94927-130  
Email: [die@die-gdi.de](mailto:die@die-gdi.de)  
[www.die-gdi.de](http://www.die-gdi.de)



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Bonn, May 2020

Sabine Laudage

**Keywords:** Corporate tax revenue, FDI, Financing for development, tax incentives, BEPS, multinational firms

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## Abbreviations

AEOI	Automatic Exchange of Information
ATAF	African Tax Administration Forum
BEPS	Base Erosion and Profit Shifting
BTT	bilateral tax treaty
CFC	controlled foreign company
CIAT	Inter-American Center for Tax Administration
CIT	corporate income tax
DAC	Development Assistance Committee
EOIR	Exchange of Information on Request
EU	European Union
FATF	Financial Action Task Force
FDI	Foreign Direct Investment
FFD	financing for development
GDP	Gross Domestic Product
IMF	International Monetary Fund
LAC	Latin America and the Caribbean
LDC	least-developed country
LIC	low-income country
LMIC	lower-middle-income country
MNC	multinational corporation
ODA	official development assistance
OECD	Organisation for Economic Cooperation and Development
SDG	Sustainable Development Goal
UMIC	upper-middle -income country
USD	United States Dollars

## Executive Summary

Corporate tax revenue and Foreign Direct Investment (FDI) are two key sources of development finance, according to the Addis Ababa Action Agenda for Financing for Development. These sources are important because they enable developing countries to finance public goods and mobilise private investment for sustainable development. However, certain tax policies can have ambiguous impacts on corporate tax revenue, and FDI and challenge the joint mobilisation of the two sources.

Against this background, the paper discusses potential trade-offs faced by developing countries when mobilising both corporate tax revenue and FDI, and provides solutions that address these trade-offs. A first trade-off exists between corporate tax incentives aimed at attracting FDI and the objective of increasing corporate tax revenue. A second trade-off results from the fact that policies that aim to protect the corporate tax base from erosion caused by tax avoidance and profit shifting may disincentivise FDI.

Section 2 starts with a descriptive analysis of corporate tax revenue and FDI inward stock data. One key finding is that all country income groups have been able to attract more FDI since the 1990s. Total corporate tax revenue relative to GDP has increased for low-income countries in particular. Furthermore, I find a negative correlation between corporate tax revenue and FDI inward stock (both as a percentage of GDP) for upper-middle-income countries, whereas the correlation is close to zero for low-income countries. This correlation is clearly driven by omitted variables (e.g. economic diversification, institutional capacity and the type of attracted FDI), but it calls for a more in-depth analysis of the tax-policy instruments used at the intersection of FDI and the mobilisation of corporate tax revenue. Therefore, this paper investigates further the potential trade-off indicated by the negative correlation.

The first part of Section 3 goes on to discuss the first trade-off. Decreasing corporate income tax rates, tax expenditures, and tax incentives in bilateral tax treaties are identified as policy instruments that might create trade-offs between corporate tax revenue and FDI. These policy instruments are used by governments to attract FDI, but they can also create revenue foregone. Several reform proposals are currently under discussion to tackle harmful effects of tax incentives. For instance, in the Inclusive Framework on Base Erosion and Profit Shifting (BEPS), developing countries are currently participating in discussions on a global minimum corporate tax rate. A somewhat unregulated policy area is tax expenditure, which needs to be strictly limited to projects that fulfil two conditions: (i) investments would not happen without such incentives, and (ii) expected benefits (e.g. in terms of employment generation or technology spillovers) outweigh the revenue foregone. This only applies to efficiency-seeking sectors that attract investors looking for the lowest costs.

Part two of Section 3 turns to the second trade-off: tax-policy instruments that aim to protect the corporate tax base of countries from base erosion and profit shifting and their potential effect on FDI. The OECD/G20 BEPS project includes several anti-avoidance rules and policies that try to limit multinational tax avoidance. The primary goal is to increase corporate tax revenues. However, initial empirical evidence shows that these rules might disincentivise foreign investment, if introduced unilaterally. The same applies to policy instruments to reduce multinational tax evasion via trade misinvoicing.



Finally, Section 4 discusses reform proposals for the international tax system: how to address the trade-offs between FDI and corporate tax revenues. First and foremost, a good investment environment built on non-tax conditions (qualified workers, good infrastructure, competitive suppliers, and security) could render at least some tax incentives for FDI unnecessary. National investment authorities should improve their capability to assess the expected developmental benefits of FDI and, on that basis, revise their tax-incentive policies to avoid unnecessary subsidies. In addition, the international tax system needs to improve by increasing tax transparency and closing digital tax loopholes.

So far, only a few countries have set the agenda in the Global Forum and the OECD/G20 BEPS project. However, the fora are opening up, and developing countries are becoming actively engaged in the negotiations of future reforms and policy agendas. It is important that rules against tax avoidance and evasion in line with multilateral decisions by the Inclusive Framework are swiftly implemented and enforced. Joint multilateral approaches to combating BEPS, such as the Addis Tax Initiative, might suit the interests of developing countries better than unilateral action. To participate in information exchange and be able to enforce complex international tax rules, tax administrations in developing countries need to build their capacity.

Taxing the digital economy is particularly relevant to middle-income countries, where the use of digital companies and services spreads fast. Development cooperation should provide technical assistance regarding taxation of the digital economy, and promote the digitalisation of tax administrations in developing countries.

## 1 Introduction

Corporate tax revenue and Foreign Direct Investment (FDI) are two important development finance sources, which are closely linked with regard to the taxation of Multinational Corporations (MNCs). In the Addis Ababa Action Agenda (United Nations, 2015), tax revenues and FDI are identified as two key action areas for the financing for development (FFD) process. Public revenue is critical for developing countries to provide much-needed public goods in infrastructure, education and health. Therein, revenue from corporate taxation plays a significant role in developing countries and amounts to almost 16 per cent of total revenue (ICTD/UNU-WIDER, 2020). At the same time, mobilising more private financing for development is essential to finance the Sustainable Development Goals (SDGs) until 2030 (OECD, 2018b). A major component of international private resources is FDI. However, it is mainly middle-income and resource-rich developing countries that are able to attract FDI (UNCTAD, 2018b), whereas least-developed countries (LDCs) rely more on flows of external aid. Reinforcing and jointly mobilising corporate tax revenue and FDI is therefore critical for progress in the process of financing for development (FFD).

Developing countries have many reasons for wanting to attract FDI, such as the creation of new jobs, a greater inflow of private capital, and the stimulation of long-term economic growth. A good investment environment, with a functioning infrastructure, qualified workers, competitive suppliers, and security are pre-conditions to attracting a share of FDI in a competitive arena. However, many developing countries cannot provide such an investment environment so governments resort to tax benefits, also called tax incentives, to attract FDI. In about half of the developing countries, new tax incentives were introduced or strengthened between 2009 and 2015 (Andersen, Kett, & Uexkull, 2017). This involves the government giving up a part of its right to tax MNCs, while witnessing the erosion of its corporate tax base due to profit shifting and other tax-avoidance practices by MNCs. To address tax-base erosion, the government creates new rules and policies, which can have the adverse effect of creating disincentives to foreign investors because of the higher compliance costs.

Thus, when policy-makers try to mobilise both FDI and tax revenue from MNCs, they are likely to face a twofold trade-off. The first trade-off occurs if governments use tax incentives to attract FDI. The desired positive spillovers of FDI on other domestic sectors and growth are often lacking, and it is unclear whether the investment, which was attracted by a tax incentive, might not have happened anyway. Compared to the status quo (no FDI and low corporate tax revenue), governments are able to attract FDI, but are unfortunately not collecting tax revenue from the investment. While tax revenue is crucial in providing better public goods and improving the overall investment environment of a country, tax incentives form a first trade-off between corporate tax revenue and FDI.

The second trade-off occurs when governments try to protect their corporate tax base from base erosion and profit shifting. Tax avoidance via profit shifting<sup>1</sup> has become a widespread phenomenon, which amounts to a loss of about 7 per cent of developing countries' corporate tax revenues (Tørsløv, Wier, & Zucman, 2018). In addition, companies might also illegally

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1 Profit shifting describes the re-location of profits from a firm in a high-tax country to a firm in a lower-tax country, where both firms are part of the same MNC group. The aim is to reduce the overall tax burden of the MNC.

relocate their capital in tax havens or evade tax via trade misinvoicing. Tax evasion accounts for illicit financial flows equivalent to 20 per cent of developing country trade (Global Financial Integrity, 2019). To address tax avoidance and tax evasion by MNCs, a number of tax-policy instruments have been developed (e.g. anti-profit-shifting rules). However, the enforcement of these rules raises compliance costs for MNCs and might change their investment location decision. Thus, rules and policies currently mainly developed within the Organisation for Economic Cooperation and Development (OECD)/G20 BEPS project might be effective in protecting corporate tax bases, but on the other hand might backfire in terms of putting off FDI.

Limited research on these two trade-offs already exists but has not yet come to clear and conclusive answers. The first strand of the literature assesses the effects of tax-incentive policies on FDI and tax revenue. For example, the effect of tax incentives on FDI has been explored by Klemm and Van Parys (2012), James (2013) and Morisset and Pirnia (2000), who come to different conclusions for different geographic regions and time periods. The second strand of the literature aims to quantify the effects of anti-BEPS measures on FDI and tax revenue. The size of tax avoidance and tax evasion has recently been estimated in various quantitative studies (see Bradbury, Hanappi and Moore (2018) for an overview). However, the effects of using tax policies to combat tax avoidance and tax evasion have not been studied much for developing countries until today (an exception is Hofman and Riedel (2018)).

Against this background, this paper gives an overview on tax-policy instruments that concern the taxation of MNCs and potentially (dis-)incentivise FDI.<sup>2</sup> The main research question is: Which tax policy instruments trigger a trade-off between corporate tax revenue and FDI and how can these trade-offs be addressed by developing countries?

The rest of the paper is structured as follows: Section 2 shows corporate tax revenue and FDI data for developing countries and identifies interesting correlations. Section 3 discusses potential trade-offs between corporate tax revenue and FDI originating from different tax policy instruments. Section 4 goes on to discuss how reforms of the international tax system can address the trade-off. Finally, Section 5 concludes and provides policy recommendations for developing countries related to the discussed policy instruments.

## 2 Corporate tax revenue and FDI in developing countries

Corporate tax revenues and FDI are important sources of development finance in developing countries.<sup>3</sup> Total tax revenues amount to 15 per cent of Gross Domestic Product (GDP) on average in LDCs and 22 per cent of GDP in upper-middle-income countries (UMICs) in 2016. Corporate tax revenue ranged between zero and 7 per cent of GDP in developing countries in 2016 (ICTD/UNU-WIDER, 2020). Trends over recent years show that tax

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2 A more holistic view on domestic tax regimes which includes the impact of policy instruments on other types of taxes (e.g. personal income tax, VAT, licensing fees, etc.) cannot be provided in the scope of this study, but should be kept in mind and is mentioned in several footnotes.

3 I use the term developing countries to refer to the list of Development Assistance Committee (DAC) Official Development Assistance (ODA) receivers. The list can be grouped into least developed countries (LDCs), other low-income countries (LICs), lower-middle-income countries and territories (LMICs), and upper-middle-income countries and territories (UMICs) (OECD, 2018a).

revenues are increasing in almost all countries. However, FDI inward stock remains low in least developed countries (LDCs) while it is increasing for lower-middle-income countries (LMICs) and UMICs. The average FDI inward stock amounts to USD 6.26 billion in LDCs and USD 63.89 billion in LMICs and UMICs (UNCTAD, 2018a). How are levels and changes in these two development finance sources related over time and across countries? Section 2.1 provides descriptive statistics on corporate tax revenue and FDI data for developing countries in recent years and shows time-series graphs for country groups. In Section 2.2, corporate tax revenue and FDI are correlated, and characteristics of different country groups are identified. It is important to note that the coverage and quality of the cross-country panel data does not allow for conclusive statements on specific countries, but rather shows trends for the two variables.

## 2.1 Relating corporate tax revenue and FDI data

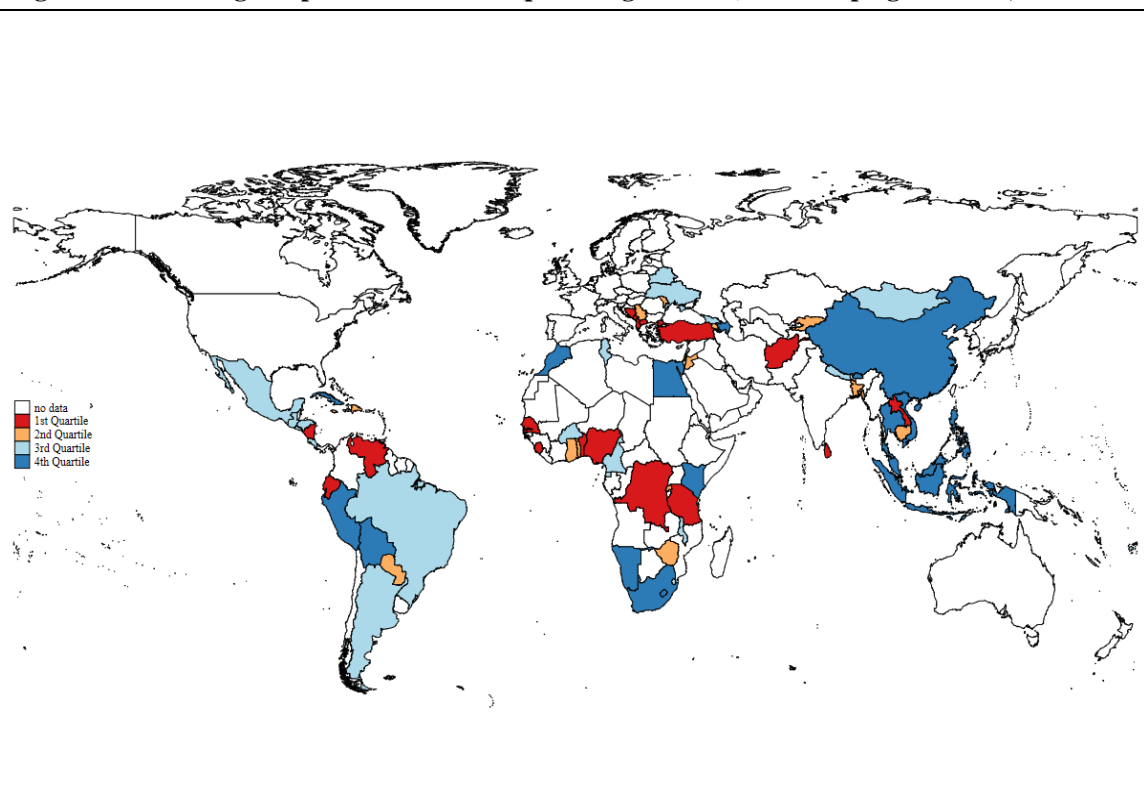
The relation between corporate tax revenue and FDI is diverse across countries in recent years. Corporate tax revenue levels show some regional patterns, but in general terms reflect a country's overall welfare levels, measured, for instance, by the GDP per capita of a country, and/or its wealth of exportable natural resources. Thus, FDI stocks tend to be higher in resource-rich countries and UMICs. For all country income groups, I observe upward trends in corporate tax revenues and FDI inward stock (both as a percentage of GDP), whereas FDI net inflows are volatile over time. This reflects the global trend towards higher overall welfare levels but increasing inequality gaps between countries.

Figure 1 displays the quartiles of average corporate tax revenue (as a percentage of GDP) for 81 developing countries<sup>4</sup> from the Development Assistance Committee (DAC) list (OECD, 2018a) for the period 2013 to 2017. Countries marked in red have low corporate tax revenue, ranging between zero and 1.7 per cent of GDP, and are mainly located in West and East Africa, South-East Asia, and Latin America.<sup>5</sup> The second quartile, in orange, includes countries with corporate tax revenues between 1.7 and 2.6 per cent of GDP. These include countries in West and East Africa, Middle East, and Central Asia. The third and fourth quartiles (light and dark blue) show countries with corporate tax revenues above the developing country median (2.6 per cent of GDP). These countries are mainly located in South America, Southern Africa, Eastern Europe, and East Asia. The levels of corporate tax revenues seem to be strongly positively correlated with welfare levels, and negatively correlated with natural resource wealth. Given that many of the countries with the lowest corporate revenues have large stocks of natural resources (e.g. DR Congo, Mongolia, Nigeria and Venezuela), they could mobilise more revenue from corporate taxes by efficiently taxing the MNCs that operate in their countries. This requires more transparency in the extractive industries and the taxation of MNCs in those countries. However, the extraction of natural resources often involves state-owned enterprises and high levels of corruption.

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4 Corporate tax revenue data are only available for a subsample of developing countries. The list of countries can be found in Table A1 in the Appendix.

5 Note that the validity of these data is limited because they are not available for all countries and only display the direct tax revenue from corporate income. Indirect tax revenue from corporations and non-tax revenues are not displayed.

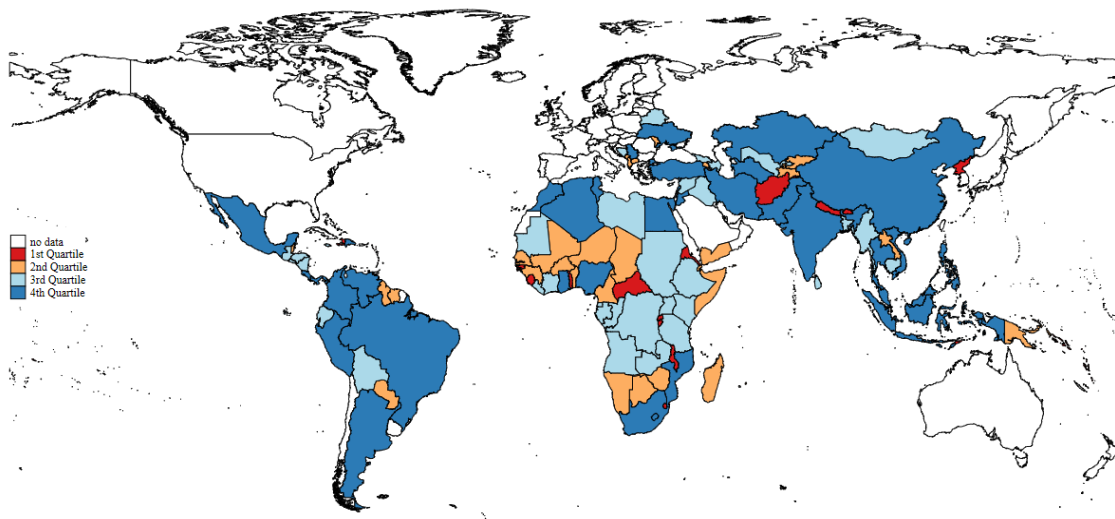
**Figure 1: Average corporate tax revenue (percentage of GDP) in developing countries, 2013–2017**

Notes: The 81 countries are coloured depending on their average corporate tax revenue 2013–2017. The first quartile indicates corporate tax revenue smaller than 1.7 per cent of GDP. The second quartile ranges between 1.7 and 2.6 per cent of GDP. The third quartile ranges between 2.6 and 3.4 per cent of GDP. The fourth quartile indicates corporate tax revenue larger than 3.4 per cent of GDP.

Source: Own illustration based on data from Government Revenue dataset, Corporate tax revenues as a per cent of GDP (ICTD/UNU-WIDER, 2020).

Figure 2 shows FDI inward stocks (in USD millions) by quartiles for developing countries, averaged for the period 2013 to 2017. Colours follow the same pattern as in Figure 1. Countries marked in red and orange have FDI inward stocks below the median, and countries marked in blue have FDI inward stocks above the median of USD 6.2 billion. FDI flows into LMICs and UMICs are mostly above the median, whereas FDI inward stocks in LDCs are mostly below the median. No strong regional pattern is observable, but resource-rich countries (e.g. Angola, Mongolia and Nigeria) tend to have above-median FDI inward stocks. Note that the FDI inward stock is also positively correlated with GDP levels, since countries with larger economies tend to attract and accumulate more FDI.

**Figure 2: Average FDI inward stock (USD millions) in developing countries, 2013–2017**



Notes: The 134 countries are coloured depending on their average FDI inward stock 2013–2017. The first quartile indicates a FDI inward stock smaller than USD 1,590.48 million. The second quartile ranges between USD 1,590.48 million and USD 6,244.35 million. The third quartile ranges between USD 6,244.35 million and USD 24,100.65 million. The fourth quartile indicates a FDI inward stock larger than USD 24,100.65 million.

Source: Own illustration based on data from FDI Statistics, FDI inward stock in million USD (UNCTAD, 2018a).

In a next step, I display and analyse how corporate tax revenue and FDI evolved in developing country income groups over time. Figure 3 shows how corporate tax revenue (as a percentage of GDP)<sup>6</sup> has developed since 1990 for the different income groups of developing countries. Corporate tax revenue has increased for LDCs and low-income countries (LICs) from below 1.5 per cent in the 1990s to above 2.5 per cent of GDP in 2017, on average. For LMICs and UMICs, corporate tax revenue fluctuated wildly between 1990 and 2017. On average, LMICs have increased their corporate tax revenue from close to 2 per cent in 1990 to about 3 per cent of GDP since 2010. For UMICs, corporate tax revenue has fluctuated a lot but has only increased by one percentage point in 2017 compared to the initial level of 2.5 per cent in 1990.

<sup>6</sup> Note that an increase in corporate tax revenue (as a percentage of GDP) can be due to an increase in absolute CIT revenue or a decrease in GDP.

**Figure 3: Average corporate tax revenue (per cent of GDP) for developing-country income groups, 1990–2017**

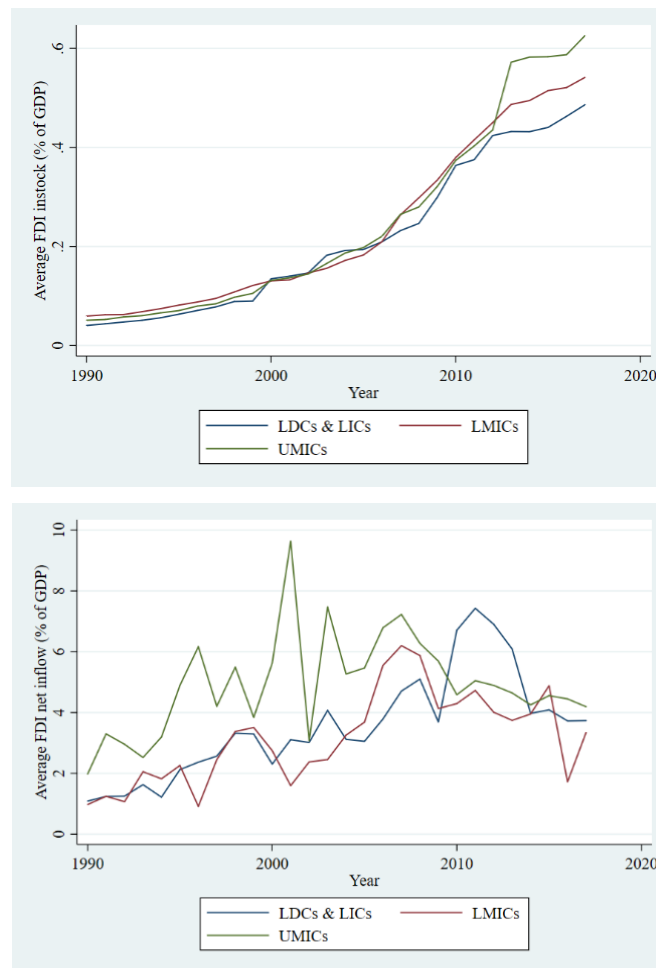


Notes: Albania and Botswana are excluded from the group of UMICs because they had very large outlier values in the 1990s (corporate tax revenue above 30 per cent of GDP).

Source: Own illustration based on data from Government Revenue dataset, Corporate tax revenue as a percentage of GDP (ICTD/UNU-WIDER, 2020) and DAC country list (OECD, 2018a).

Figure 4 displays the evolution of average FDI inward stocks (left graph) and average FDI net inflow (right graph) in developing-country income groups from 1990 to 2017. The key message is that all country groups have succeeded in attracting FDI since the 1990s. In 1990, FDI inward stocks were below 10 per cent of GDP in all country income groups. Since then, FDI inward stocks have increased to more than 60 per cent of GDP in UMICs, 49 per cent of GDP in LMICs, and above 54 per cent of GDP in the group of LDCs and LICs in 2017. The graph on the right-hand side shows the corresponding yearly FDI inflows (as a percentage of GDP), which build up the FDI inward stocks in the left-hand side graph. The yearly FDI inflows are much more volatile. For the group of UMICs, the FDI inflows have been decreasing since 2008 as a percentage of GDP. The beginning of the drop can be attributed to the financial crisis, whereas the continuous drop indicates that many emerging economies in this group have fast-growing economies and their GDP grows at a faster rate than FDI inflow. Similarly, FDI inflows into LMICs (as a percentage of GDP) follow an upward trend until the economic crisis and then decline. In LDCs and LICs, FDI net inflow (as a percentage of GDP) shows also an upward trend until 2011, and since then follows a downward trend. The declining trend of FDI inflow into developing countries is alarming for progress on the financing for development agenda, as pointed out in a recent OECD report on financing for sustainable development (OECD, 2018b).

**Figure 4: Average FDI inward stock and average FDI net inflow (both as a percentage of GDP) for developing country income groups, 1990–2017**



Notes: Country groups include countries as stated in the DAC list of 2018 and are fixed for all years.

Source: Own illustration based on data from FDI Statistics, FDI inward stock in million USD divided by GDP in million USD (UNCTAD, 2018a), FDI net inflow as a percentage of GDP (World Bank, 2019), and DAC country list (OECD, 2018a).

A comparison of Figures 3 and 4 shows that both corporate tax revenue and FDI have been increasing for the groups of developing countries. Corporate tax revenues fluctuated strongly for LMICs and UMICs, whereas they significantly increased for LDCs and LICs since 2004.<sup>7</sup> Aggregate FDI inward stocks (as a percentage of GDP) continuously increased for all three country income groups. Average FDI net inflow (as a percentage of GDP) was much more volatile and followed an upward trend on average in all income groups until the economic crisis, but has since declined.

Summing up, all country income groups have been able to attract FDI since 1990, while the absolute FDI inward stock in LDCs and LICs is still low. At the same time, corporate tax revenue became relatively more important for these countries. UMICs experienced large increases in FDI, whereas the relative increase in corporate tax revenue (as a percentage of

<sup>7</sup> This is partly due to the fact that LICs and LDCs only started to report their tax revenues in a comparable way during the depicted time period.

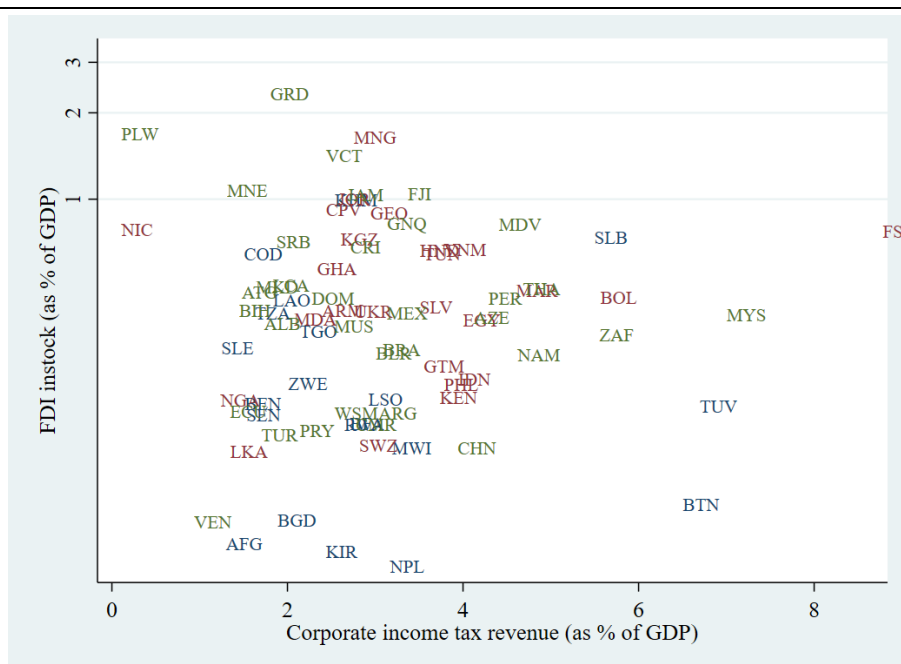


GDP) is small. This poses the interesting question of whether FDI is attracted by tax incentives and/or by allowing for tax avoidance via profit shifting. If any of the two apply, the attraction of FDI would come with a trade-off for revenue mobilisation. This trade-off will be further discussed in Section 3.

## 2.2 Correlating corporate tax revenue and FDI data

Correlating corporate tax revenue and FDI data across developing countries gives a diverse picture. On the one hand, some countries with higher FDI inward stocks tend to collect high corporate tax revenues, and vice versa. On the other hand, some countries show converse trends in corporate tax revenue and FDI – in other words, have large FDI inward stocks and small corporate tax revenues (both as a percentage of GDP), and vice versa. Is positive or negative correlation between corporate tax revenue and FDI inward stocks observable across different country income groups? This subsection tries to identify some general patterns in the link between corporate tax revenue and FDI relative to GDP across countries and income groups.

Figure 5 plots corporate tax revenue against FDI inward stocks (both as a percentage of GDP) for 80 developing countries averaged over the period 2013 to 2017. The high dispersion suggests an ambiguous relation between the two development finance sources across developing countries, and it remains difficult to find a clear pattern across all developing countries. The overall correlation between corporate tax revenue and FDI inward stocks is negative and close to zero ( $-0.0921$ ). Calculating the correlation coefficients for the three different country income groups reveals some more but limited insights into the link. For LICs and LDCs, I calculate a negligible negative correlation of  $-0.0159$  and for LMICs the correlation is close to zero as well ( $0.013$ ). This indicates that for poorer developing countries there is no clear pattern observable in the relation between corporate tax revenue and FDI inward stock measured relative to their GDP levels. Putting both variables in relation to GDP controls for differences in income levels across countries, but not for other possible omitted variables (e.g. export orientation and institutional capacity). For instance, countries that export more can collect more taxes from the exported goods and services, while at the same time an existing exporting infrastructure can help to attract further FDI. Similarly, countries with better institutions might be able to collect more revenue from corporations and provide a good investment environment. Hence, it is possible that the correlation is driven by these omitted variables.

**Figure 5: Scatterplot of corporate tax revenue and FDI inward stock, 2013–2017**

Notes: The y-axis has a logged scale. Blue country codes indicate LDCs and LICs, red country codes are LMICs, and green country codes are UMICs.

Source: Own illustration based on data from FDI Statistics (UNCTAD, 2018a) and Government Revenue dataset (ICTD/UNU-WIDER, 2020).

On the contrary, for UMICs, the correlation between corporate tax revenue and FDI is stronger and negative ( $-0.2336$ ). Upper-middle income countries with higher FDI inward stocks tend to have lower corporate tax revenues (both relative to GDP), and countries with lower FDI inward stocks tend to have higher corporate tax revenues. Again, this negative correlation might be driven by omitted variables. However, the negative correlation indicates a potential trade-off for the joint mobilisation of corporate tax revenue and FDI in UMICs. This trade-off can, for instance, be due to tax incentives provided by governments to foreign investors. If a country provides tax incentives, it is able to attract more FDI, but also collects relatively fewer direct taxes from corporations.

Moreover, the trade-off might depend on the type of FDI. In general, we can differentiate between four different types of FDI: i) natural resource-seeking investment, ii) market-seeking investment, iii) strategic asset-seeking investment, iv) efficiency-seeking investment (Dunning, 1980). The different types of FDI are related to different investors' motivations. The first three types of FDI (i–iii) are unlikely to respond to tax incentives, whereas efficiency-seeking FDI can be attracted via tax incentives (Andersen et al., 2017). Efficiency-seeking FDI flows to locations where production costs are lowest. Tax incentives lower investors' production costs and thus can help attract efficiency-seeking FDI. In particular, efficiency-seeking FDI accumulates in competitive and export-oriented sectors. Thus, tax incentives should only be provided for selected sectors that countries want to strategically develop to better integrate into global value chains.

To conclude, the descriptive data analysis presented provides insights into how corporate tax revenue and FDI inward stocks differ across developing countries and over time, but does not allow for a conclusive link between the two development-finance sources.

However, the partly negative correlation between corporate tax revenue and FDI indicates a potential trade-off between the two sources. Therefore, the following section continues to discuss tax-policy instruments that potentially trigger a trade-off between the two sources and reviews empirical literature that assesses the interactive effects.

### **3 Trade-offs between corporate tax revenue and FDI**

Differences in corporate tax revenue and FDI between countries and over time can be due to trade-offs between the two development finance sources, which are provoked by different tax-policy instruments discussed in this section. A first set of instruments are tax incentives for MNCs to attract FDI, which include low corporate income tax (CIT) rates, tax expenditures, and special provisions in bilateral tax treaties for foreign investors. The controversy surrounding tax incentives is discussed regarding their effectiveness to attract FDI and their impact on public revenue collection. If FDI attracted through tax incentives does not create the desired spillover effects on employment and the domestic supplier markets, they are often considered costly and inefficient. Thus, tax incentives can contribute to a trade-off between corporate tax revenue and FDI (see Section 3.1).

A second set of policy instruments tries to protect the corporate tax base from tax avoidance and tax evasion by MNCs. These include, for instance, a multilateral instrument for tax treaties, anti-profit-shifting rules and anti-tax-evasion policies. Governments aim to increase their corporate tax revenue by fighting tax avoidance and tax evasion by MNCs. However, stricter rules to fight tax avoidance and evasion might disincentivise FDI, and lead investors to choose other low-tax countries for their investments. Initial empirical evidence on this trade-off remains low for developing countries and is discussed further in Section 3.2.

#### **3.1 Competing for FDI through tax incentives**

Tax incentives are an instrument widely used by developing countries to attract FDI. A new database on tax incentives for corporate investments reveals that 49 to 72 per cent of the 107 developing countries in the sample offer types of tax incentives (e.g. tax holiday, preferential tax rate, or tax allowance). Furthermore, the data show that new or more generous tax incentives were introduced in about half of the developing countries between 2009 and 2015 (Andersen et al., 2017).<sup>8</sup> The share of countries in Sub-Saharan Africa is especially large; 65 per cent of countries made tax incentives more generous in at least one sector over the study period. This subsection focuses on three different types of incentives primarily used in developing countries: low corporate income tax rates, tax expenditures, and tax incentives in bilateral tax treaties; it discusses their potential impact on the trade-off between corporate tax revenue and FDI.

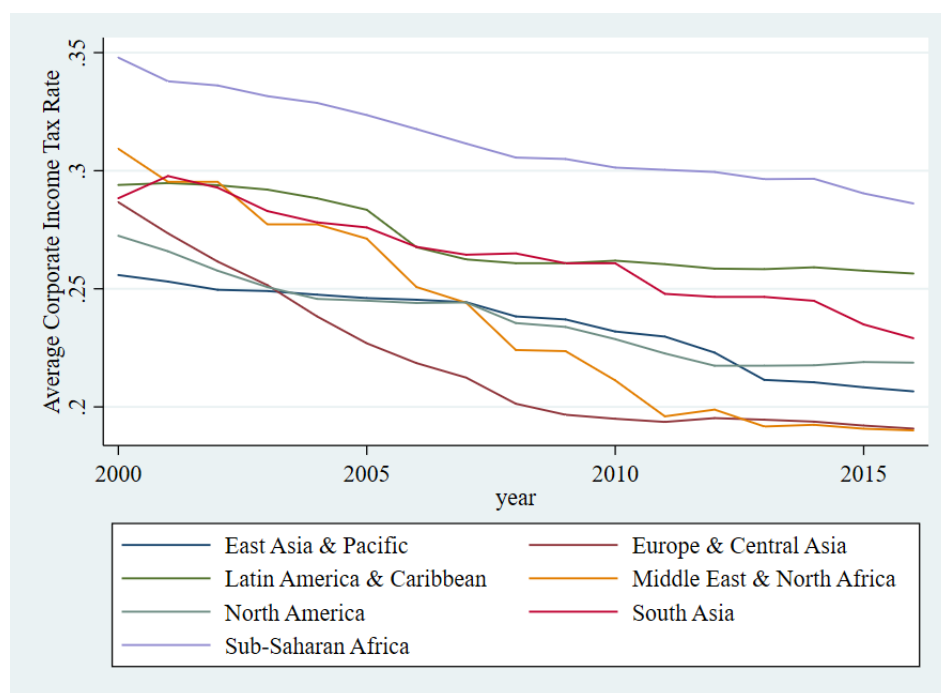
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<sup>8</sup> The new database by the World Bank Group only includes information on direct corporate tax incentives, but excludes information on indirect tax incentives (e.g. customs duties, VAT exemptions, or subsidies).

*Racing corporate tax rates to the bottom*

Corporate income tax (CIT) rates are decreasing in most regions of the world as a consequence of increasing competition over scarce FDI. This trend started in OECD countries with a decrease in the OECD's average CIT rate from 30 per cent in 2000 to 22 per cent in 2018. Another shock was experienced when the United States cut its statutory CIT rate from 35 to 21 per cent in 2018 (OECD, 2019b). Developing countries are joining the “race-to-the-bottom” of corporate tax rates. In all regions, average CIT rates decreased during the period 2000 to 2016 (see Figure 6). Average CIT rates remain highest in Sub-Saharan Africa and Latin America & the Caribbean (LAC), with CIT rates above 25 per cent in 2016. In South Asia, North America, and East Asia & Pacific average CIT rates range between 20 and 25 per cent in 2016. Average CIT rates are lowest in the Middle East & North Africa and Europe & Central Asia in 2016 (below 20 per cent). Lowering corporate income tax rates creates direct losses in public revenues, which are often compensated for by individual income tax payments and indirect tax revenues that put more load on the low- and middle-income classes.

**Figure 6: Average corporate income tax rates in regions, 2000–2016**



Notes: The data include statutory CIT rates for up to 193 countries in an unbalanced panel. All countries are included for which data were available.

Source: Own illustration based on data collected from EY Worldwide Corporate Tax Guides (Ernst & Young, 2000-2016).

The race-to-the-bottom of CIT rates was accompanied by a growing number of tax havens and high-risk third countries in the developing world with notoriously low corporate tax rates and high levels of financial secrecy. Only recently did the number of jurisdictions on these black and grey lists began to decrease because countries were put under public pressure and started to comply with good tax governance standards. Several tax haven lists have been published by international organisations (e.g. OECD) and NGOs (e.g. Tax Justice Network), which use different criteria to define tax havens and high-risk third countries. In

this study, I follow the European Council list on non-cooperative tax jurisdictions (Annex I) and countries on their watch list (Annex II) (European Council, 2020).<sup>9</sup> On the initial European Commission list of non-cooperative jurisdictions on tax matters from 2017, 17 countries were listed as non-cooperative and 47 countries as on the watch list (European Council, 2017). Countries are considered as non-cooperative if they do not cooperate with the European Union (EU) on tax matters (also named black list). On the watch list (also named grey list), countries are listed if they cooperate with the EU in improving their tax-cooperation ambitions (e.g. by joining the Global Forum and the Inclusive Framework on BEPS, or eliminating harmful tax regimes). While countries have been removed and added in the following years on a biannual evaluation, in February 2020 the list only included 12 non-cooperative countries and 13 countries on the watch list (European Council, 2020). This constitutes a clear decrease in the number of tax havens and seems to show effectiveness of the public shaming of countries on the black and grey lists. Among the 12 countries on the black list in 2020 are five developing countries (Fiji, Palau, Panama, Samoa and Vanuatu). The watch list includes 10 developing countries. Most of these countries have invested heavily in the financial sector over the past decades in order to attract FDI. In addition to low corporate tax rates, tax havens provide many other financial services to MNCs and banks, while maintaining high levels of financial secrecy. This attracts international investors to channel their investments via shell companies in tax havens or to store their wealth and profits in offshore bank accounts. In order to cooperate on tax transparency, these countries need a perspective for diversifying their economy and becoming less dependent on the financial and banking sector.

In addition, the European Commission published a list of 11 high-risk third countries in 2016 (European Commission, 2016). According to the EU Anti-Money Laundering Directive, these countries have “strategic deficiencies in their anti-money laundering and countering the financing of terrorism regimes”. This list has been amended as well (bi-) annually and increased to 16 jurisdictions in 2020 (The Law Society, 2020). Almost all countries on the high-risk third-country list are developing countries (except for Trinidad and Tobago). Since the number of high-risk third countries has increased, efforts on tackling anti-money laundering and terrorism financing also need to be increased. Tax-related illicit financial flows originating from these countries create huge revenue losses worldwide. The Financial Action Task Force (FATF) has developed risk-assessment guidance to combat money laundering, which is implemented in an increasing number of developing countries.

Empirical evidence on the effects of lower CIT rate and tax havens on FDI and tax revenues exists. The effect of CIT rates on FDI and corporate tax revenue shows that lower CIT rates can attract FDI in some countries, but not all, whereas the effect on tax revenue is uncertain. Abbas and Klemm (2013) observe a partial race-to-the-bottom where statutory CIT rates are reduced but effective CIT rates in developing countries are not reduced more than in developed countries. Klemm and Van Parys (2012) find that lower CIT rates increase FDI in LAC but not in Africa. On the contrary, Boly, Coulibaly and Kéré (2019) find for Africa that lower CIT rates can increase FDI inflow in host and neighbouring countries. Bellak and Leibrecht (2009) use bilateral effective average tax rates and find that tax lowering can attract more FDI in Eastern European countries. Kawano and Slemrod (2016) find that

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9 Table A1 of the Appendix provides a full list of developing countries that are on the EU list of non-cooperative tax jurisdictions and high-risk third country list, categorised as NC = Non-cooperative list, W = Watch list, and HR = High-risk third country list.

reforms reducing CIT rates are often accompanied by reforms to broaden the corporate tax base, which makes effects on tax revenues hard to predict.

The literature on tax havens finds that 30 per cent of world FDI stock is channelled through tax havens, so-called offshore FDI (Haberly & Wójcik, 2015). There is a notion that tax havens take away FDI from other countries. However, another study finds that tax havens can in fact be good neighbours for developing countries because being geographically close to a tax haven can create spillovers in FDI for neighbouring countries (Blanco & Rogers, 2014). The effect of tax havens on third countries' revenues is agreed to be negative and harmful to overall welfare in the literature. Slemrod and Wilson (2009) developed a theoretical model that predicts that the elimination of the largest tax havens can increase overall welfare for high-tax countries and the remaining tax havens.

Therefore, decreasing CIT rates and the presence of tax havens can contribute to the trade-off between revenue mobilisation from corporations and FDI attraction that many developing countries face.<sup>10</sup> On the one hand, low CIT rates reduce revenue collected from the corporate tax base, but on the other hand, countries hope for a comparative advantage to attract FDI and increase economic growth by cutting their CIT rates below the regional average. As stated earlier, tax incentives (including CIT rates) are only effective in attracting efficiency-seeking FDI, but not other types of FDI such as market-seeking or natural-resource-seeking FDI. Thus, lowering the broad statutory CIT rate seems to be inefficient at attracting more FDI but rather creates revenues foregone. It is more efficient to direct well-designed tax incentives to strategic sectors that can attract efficiency-seeking FDI.

How could this trade-off be addressed? The introduction of a minimal corporate tax rate in regions or even better for all countries could partly solve the trade-off, reduce regional tax competition, and ensure a fair collection of revenue from CIT. Currently, the Inclusive Framework on BEPS discusses the introduction of a global minimum corporate tax rate for their members (Pillar Two of BEPS Action 1 (OECD, 2019d)). Defining a global minimum tax rate for corporations would solve one aspect of the problem of international tax competition and bring back lost revenues. However, it is unclear so far how this minimum tax rate should be enforced globally, and how countries will be held accountable for the actual implementation of this regulation. In particular, developing countries lack information on how such a global reform would impact their own revenues. Two important risks of this reform proposal are, first, that all countries lower their official corporate tax rates to the minimum level and countries with initial higher tax rates lose revenue. Second, countries make use of other tax incentives to lower the effective tax rates for corporations and undercut their regional competitors (e.g. via tax expenditures). Therefore, an international reform on corporate income tax rates must go hand in hand with a review of tax expenditure regimes and a continuous monitoring of effective tax rates.

### *Giving away tax expenditures*

Corporate tax expenditures are fiscal incentives that governments give to foreign firms in order to influence their locational and behavioural decision regarding FDI. They present

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10 Only the direct effects of decreasing corporate tax rates on FDI and corporate tax revenue are considered here. However, it is noteworthy that there might also be positive indirect effects on other types of tax revenue (e.g. personal income tax, VAT, goods and services taxes, etc.).

another form of tax incentives given to MNCs and pose a risk to revenue collection. According to an International Monetary Fund (IMF) definition, tax expenditures create “revenue foregone, attributable to provisions in the tax law that allow special exclusions, exemptions, deductions, credits, concessions, preferential rates, or deferral of tax liabilities for select groups of taxpayers or specific activities” (IMF, 2018). Andersen et al. (2017) find that developing countries often use tax holidays for corporate income tax and mainly grant them to the infrastructure and manufacturing sectors, depending on location conditions.<sup>11</sup> Other tax expenditures by developing countries include patent boxes and fiscal regimes in special economic zones (Redonda et al., 2018).

The controversy surrounding the effectiveness of tax expenditures in attracting FDI and promoting economic growth is discussed in the empirical literature. Klemm and Van Parys (2012) find that longer tax holidays effectively attract FDI to LAC countries but not to African countries. Similarly, Van Parys and James (2010) find no positive effect of tax holidays on FDI in African countries, but improving other factors of the investment environment helps to increase FDI (e.g. increasing the number of legal guarantees for investors or reducing the complexity of the tax system). A comprehensive literature review of tax incentives and FDI concludes that tax incentives need to be combined with non-tax factors in order to be effective (Munongo, Akanbi, & Robins, 2017). Thus, the effectiveness of tax expenditures depends on the country context, in other words, the investment environment, political and macroeconomic stability, domestic market size, infrastructure, labour market skills, and the sector and scope of investment (World Bank, 2018). In particular, tax expenditures can be ineffective in LDCs if the basic investment environment is lacking (Andersen et al., 2017). Another example of ineffective tax incentives are tax exemptions in extractive industries, which are often hidden in individual contracts. Firms in extractive industries might invest even without receiving additional tax expenditures. In those cases, governments do not need to provide tax expenditures. Lastly, environmentally harmful tax expenditures such as for fossil fuels create negative externalities, which should be stopped (Redonda et al., 2018).

Tax expenditures often contribute to the trade-off between tax revenue and FDI if the amount of attracted FDI does not compensate for the amount of tax revenue lost. However, efficiently designed tax expenditures can attract FDI and at the same time create positive spillovers of FDI to compensate for losses in tax revenue.<sup>12</sup> There are no empirical studies yet that estimate simultaneously the quantitative impacts of tax expenditures on FDI and tax revenue. This is due to the unavailability of data and the difficulty in disentangling the effects of tax expenditures from the effects of other confounding factors. However, if tax expenditures are carefully designed and only directed at selected sectors, they can be successful in attracting efficiency-seeking FDI. In particular, tax expenditures should be strictly limited to projects that fulfil two conditions: (i) investments would not happen without such incentives, and (ii) expected benefits (e.g. in terms of employment generation or technology spillovers) outweigh the revenue foregone. At the same time, a good investment environment should be a pre-condition for giving tax expenditures to foreign firms (Andersen et al., 2017). Environmentally harmful tax expenditures have to be

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11 This study only looks at direct corporate income tax incentives, but excludes customs exemptions and indirect tax exemptions from their analysis.

12 Positive spillover effects on employment and supplier markets can create indirect effects on other types of tax revenue (e.g. personal income tax, goods and services taxes, licenses fees etc.).

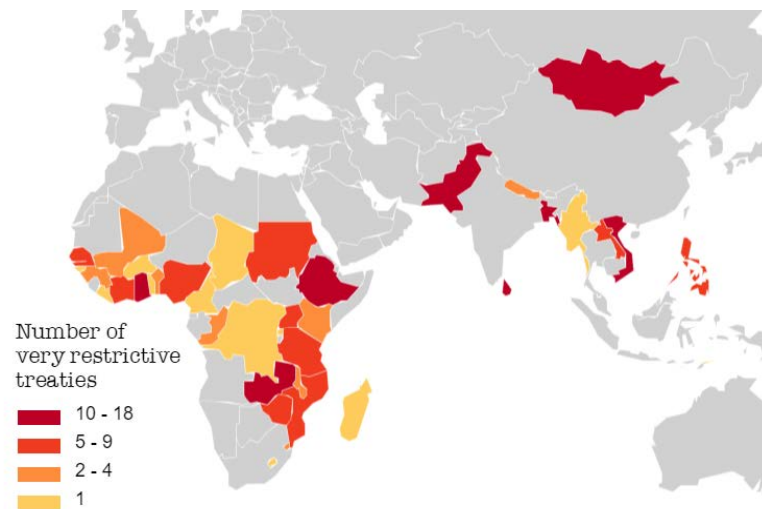
eliminated (e.g. for fossil fuels) and governments should increase the transparency of the size and types of their tax expenditures (Redonda et al., 2018).

### *Providing tax incentives in bilateral tax treaties*

Tax incentives for FDI are also provided in bilateral tax treaties (BTTs), which regulate the taxation of cross-border financial flows between two countries. Tax treaties are initially designed to avoid double taxation, which is still one of the biggest hurdles for international investors. Hence, for two developed countries with symmetric cross-border flows, a BTT is beneficial for both contracting countries regarding the equal sharing of taxation rights and the creation of more tax certainty for foreign investors.

On the contrary, developing countries have signed more than 2000 BTTs since the 1960s, among which many are with developed countries. This implies an asymmetric relationship between the two contractor countries because developing countries take the role of capital importers, whereas industrialised countries are mainly capital exporters. The design of the BTTs, however, does not take the asymmetric capital flow relationship equitably into account, and thus many developing countries give up parts of their tax rights through restrictive clauses in asymmetric BTTs (Hearson, 2018). Tax-incentive provisions in restrictive BTTs include zero withholding tax rates on dividends, interests and royalties, or a loose permanent establishment definition for foreign firms. Permanent establishment definitions in BTTs reduce the tax rights of capital-importing countries because establishments of foreign firms can only be taxed after a certain period of time. Similarly, dividend, interest and royalty payments escape the countries of value creation without the payment of withholding taxes, but are taxed in the owner country of the foreign investor – or in offshore financial centres to which ownership of intellectual property has been shifted in order to lower a firm's tax burden. The ActionAid Tax Treaty dataset analyses the restrictiveness of more than 500 BTTs concluded by 43 African and Asian developing countries up to 2016/2017 (ActionAid/ICTD, 2017). Figure 7 shows that Bangladesh, Ethiopia, Ghana, Mongolia, Pakistan, Sri Lanka, Vietnam and Zambia have signed more than ten BTTs that highly restrict their tax rights as capital-importing countries.



**Figure 7: Restrictive bilateral tax treaties in Africa and Asia**

Notes: Permission rights granted on this graphic by ActionAid International. Note that some of the treaties in the data might have been subject to negotiations since the collection of the dataset in 2016/17.

Source: ActionAid/ICTD (2017), ActionAid Tax Treaties Dataset, accessed on 6 May 2020 via: <https://www.ictd.ac/dataset/action-aid-tax-treaties-dataset/>; all rights reserved, used with permission.

The core problem of restrictive BTTs is that they create losses in revenue for the capital-importing countries, but also trigger negative spillover effects on other countries. For instance, restrictive tax treaties can be used to channel investment from country A via country B to country C because between countries A and C no BTT is in place, whereas country B has a good network of BTTs. This behaviour has become known as treaty shopping and helps MNCs to avoid paying withholding taxes. van't Riet and Lejour (2018) find that treaty shopping generates revenue losses via tax avoidance of MNCs, while FDI stocks of the most central countries in the tax treaty network are increasing. Petkova, Stasio and Zagler (2019) support the evidence that the network of BTTs, and not individual BTTs, is the driver of FDI attraction. At the central nodes of the tax-treaty network are often tax haven countries. Beer and Loeprick (2018) analyse African BTTs involving the regional tax haven Mauritius and find that they do not increase FDI, but rather increase MNCs' incentives for profit shifting and treaty shopping. The evidence that the conclusion of single tax treaties can increase FDI inflow is limited and controversial. Initial evidence by Neumayer (2007) shows that BTTs are only effective in attracting FDI in middle-income countries, but not in LICs. On the contrary, Janský and Šedivý (2019) calculate the potential revenue costs of BTTs for a sample of 14 developing countries as amounting to up to 0.17 per cent of GDP. A recent paper by Azémar and Dharmapala (2019) finds that tax-sparing provisions in BTTs are actually successful at increasing FDI inflow in developing countries. Tax-sparing provisions in BTTs protect tax incentives given by host countries, so that they are not leveraged by a residence country's tax levied on the investment.

The empirical literature shows that BTTs have a high potential to contribute to the trade-off between corporate tax revenue and FDI in developing countries. For LDCs and LICs in particular, BTTs bear a high risk of creating revenue losses, if not carefully designed. Thus, some countries such as Uganda have started to renegotiate old BTTs to achieve a fairer share

of taxing rights. Special caution is needed if a country concludes a BTT with a tax haven country. Due to the lack of proof that BTTs really increase FDI, and the limited capacities of tax administrations to estimate potential benefits up-front, developing countries should carefully consider if, and with whom, they want to enter into a BTT. Furthermore, developing countries should consider signing the OECD's Multilateral Instrument,<sup>13</sup> which protects them from BTT-related tax avoidance and treaty shopping (OECD, 2013).

To conclude, tax incentives (e.g. low CIT rates, tax expenditures and restrictive BTTs) represent a high risk to countries' corporate tax revenues, whereas their impact on FDI is often negligible. In addition, they can cause harmful spillover effects on third countries via increased tax competition or treaty shopping. Therefore, tax incentives should be carefully designed and targeted at efficiency-seeking FDI in order to avoid a trade-off between corporate tax revenue and FDI (World Bank, 2018). National investment authorities should improve their capabilities to assess the expected developmental benefits of FDI and, on that basis, revise their tax-incentive policies to avoid unnecessary subsidies. Under the concept of Good Financial Governance, German development cooperation already supports tax administrations and regional tax organisations to implement international tax reforms and eliminate harmful tax instruments. This support should be broadened to facilitate the uptake of new international standards and regulations in partner countries.

### 3.2 Protecting the corporate tax base

While revenue foregone due to tax incentives and restrictive BTTs lies in the governments' own decision, the corporate tax base in developing countries is being further eroded by legal tax avoidance and illegal tax evasion by MNCs. Several studies have estimated the enormous size of revenue losses due to base erosion and profit shifting. Rough estimates range between USD 80 billion and USD 647 billion a year worldwide, depending on the data and methodology used (Bradbury et al., 2018; Cobham & Janský, 2018; Crivelli, De Mooij, & Keen, 2015; Janský & Palansky, 2017; Tørsløv et al., 2018). Further empirical findings show that FDI-related profit shifting of MNCs is causing even greater relative losses in corporate tax revenue in developing countries than in developed countries (Johannesen, Tørsløv, & Wier, 2019). In addition, corporate tax evasion due to trade misinvoicing in developing countries is estimated at 19 to 24 per cent of developing countries' trade (Global Financial Integrity, 2019). These rough estimates indicate that the potential to increase domestic revenues is enormous if multinational tax avoidance and tax evasion can be condemned, whereas the impacts on investment and other real-economy effects are ambiguous. Stricter international tax rules are needed to bring back the revenue losses due to international tax avoidance and evasion.

This subsection discusses different tax-policy instruments that address the problems of multinational tax avoidance and tax evasion. The instruments are designed to protect domestic corporate tax bases by fighting base erosion and profit shifting (BEPS) and combating corporate tax evasion. However, it is unknown if the anti-avoidance rules and anti-evasion policies may negatively impact FDI and thus create a trade-off between revenue gains and investment losses.

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<sup>13</sup> Multilateral Convention to Implement Tax Treaty Related Measures to Prevent Base Erosion and Profit Shifting.

### *Fighting base erosion and profit shifting*

Profit shifting describes the phenomenon whereby MNCs are shifting profits from affiliates in high-tax countries to affiliates in low-tax countries to lower their overall tax burden. This behaviour is eroding the corporate tax base of high-tax countries, whereas it favours tax havens. In particular, high-tax developing countries are concerned because their tax administrations often lack the human resources and technical capacities to fight multinational profit shifting.

The OECD/G20 has launched the BEPS project in 2013, which addresses the challenges arising from multinational tax avoidance and is currently in its implementation phase. In 2016, the Inclusive Framework on BEPS was formed to open up participation for non-OECD/G20 countries. To become a member of the Inclusive Framework, countries have to commit to fighting BEPS and participate in the peer-review of the four minimum standards<sup>14</sup> from the BEPS Action Plan. Since 2016, 137 countries have joined the Inclusive Framework, among which are ten LDCs, 21 LMICs, and 35 UMICs.<sup>15</sup>

The expected impacts of the implementation of the BEPS project on corporate tax revenue and FDI in developing countries are hard to predict. First and foremost, countries hope to reduce tax avoidance and hence increase their revenue from corporate taxation. The success of this goal remains to be seen. Second, the impact of implementing the BEPS standards might change investors' expectations and behaviour. In the short term, investors might react with reduced investment due to higher transparency standards.<sup>16</sup> In the long-run, more tax transparency might increase investors' certainty, and hence increase investment. Thus, it is uncertain at this point in time if the implementation of the BEPS standards will have an impact on the trade-off between tax revenue and FDI in developing countries.

Another challenge for developing countries is the high upfront costs to implement the minimum standards, as requested by the Inclusive Framework on BEPS. Developing countries often lack the technical and staff capacities to introduce such complex tools as country-by-country reporting. Herein, bilateral development cooperation can support the countries in building up capacities in the tax administrations and co-financing the digitalisation process. The biggest challenge, however, will remain multilateral tax cooperation and coordination, since, for example, tax haven countries have little incentive to implement the full BEPS agenda.

### *Introducing anti-profit-shifting rules*

The BEPS Action Plan further promotes the introduction of anti-profit-shifting rules (Actions 3, 8, 9, and 10). These rules include thin capitalisation rules, controlled foreign company (CFC) rules, and transfer pricing rules, which all aim to reduce multinational profit shifting. Thin capitalisation rules limit the deductibility of corporate debt from tax in order

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14 The four minimum standards are: identification and elimination of harmful tax practices, signature of the Multilateral Convention to avoid treaty abuse, country-by-country reporting on MNC groups, and improvement of mutual agreement procedures.

15 The Appendix lists all Inclusive Framework members that are developing countries.

16 However, a study on the introduction of country-by-country reporting in the European Union (EU) could not find evidence for such an effect (Dutt, Ludwig, Nicolay, Vay, & Voget, 2018).

to reduce incentives to shift inter-company debt into affiliates in high-tax countries. These rules might be very relevant to developing countries with relatively high corporate tax rates because MNCs might shift their internal debt to affiliates in these countries. However, the rules need to be designed properly so as not to create a disincentive for investment because the finance structure of many big infrastructure or extractive industries projects includes high initial levels of corporate debt. Such projects and large-scale investments should be excluded from the thin capitalisation rules. The CFC rules are less relevant to most developing countries because they give the parent company of an MNC the right to tax, and those parent companies are mostly not located in developing countries. Transfer pricing rules are the most widely used anti-profit-shifting rules and exist in 10 LDCs/LICs, 26 LMICs and 31 UMICs<sup>17</sup> (Ernst & Young, 2019). They determine intra-firm prices to be in line with the arm's length principle<sup>18</sup>. Most transfer pricing rules in developing countries are designed along the OECD Transfer Pricing Guidelines. It is questionable if rules designed for a group of high-income countries also fit the interests of developing countries. Brazil is an example of a country with transfer pricing rules that diverge from the OECD guidelines in order to better fit their own system. In general, the enforcement of transfer pricing rules is difficult because often there are no comparable internal and external cases against which to determine correct transfer prices. Tax administrations also lack the technical expertise and capacities to effectively audit the transfer pricing documentation reports of the corporate taxpayers.

Anti-profit-shifting rules aim to increase countries' revenue from corporate tax by limiting MNCs' options to shift profits outside high-tax countries. Empirical studies find initial evidence for the effectiveness of thin capitalisation rules, CFC rules, and transfer pricing rules to limit profit shifting in developed countries (Clifford, 2019; Hofman & Riedel, 2018). Comprehensive studies for developing countries are still lacking, but the effectiveness of existing rules can be questioned because many developing countries lack capacities to properly enforce the rules. A study on South Africa shows that an OECD-recommended reform of transfer pricing rules was indeed effective in the first year after the adoption, but then profit-shifting behaviour returned to initial levels because enforcement of the legislation was weak (Wier, 2018). Furthermore, the effect of anti-profit-shifting rules on FDI is unclear. Intuitively, stricter corporate tax rules might limit investment because of higher compliance costs and effective tax burdens for firms. First, empirical evidence comes from De Mooij and Liu (2018), who find that unilateral adoption of transfer pricing regulations reduces investment of MNCs into affiliates affected by the reform. Hence, anti-profit-shifting rules might contribute to the trade-off between corporate tax revenue and FDI in developing countries by limiting profit-shifting opportunities for MNCs and shifting investment into countries with laxer anti-profit-shifting rules. However, if regulations are designed and adopted on a multilateral scheme, they might do no harm to investment but increase harmonisation of tax rules and tax certainty for investors. Bilateral development cooperation could support developing countries to keep pace with the fast-changing international tax rules and adopt the best solutions for their national tax laws.

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17 A list of developing countries with transfer pricing rules introduced can be found in the Appendix.

18 The arm's length principle states that intra-firm transfer prices between two affiliates of an MNC must be set as between two unrelated parties.

### *Combating corporate tax evasion*

In addition to multinational tax avoidance, some MNCs engage in cross-border tax evasion to lower their tax burden. In contrast to tax avoidance, tax evasion is illegal and punishable. The predominant technique used by MNCs to evade taxes is a strategic mispricing of cross-border trade flows, whereby the value of customs are wrongly invoiced. Tax havens play a key role in this illegal concept. Mostly, illicit trade flows are channelled via tax havens, which provide a high level of financial secrecy. In the tax haven country, the MNC has an affiliate, through which the misinvoicing of imports or exports is processed. Using this technique, MNCs can evade taxes on VAT, customs and excises.

Which countries are affected most by trade misinvoicing? The international NGO Global Financial Integrity has calculated rough, conservative estimates of the size of trade misinvoicing in developing countries (Global Financial Integrity, 2019). Using a sample of 148 developing countries, they find that emerging-economy countries are most affected by trade-related illicit outflows measured in USD (e.g. Bangladesh, Brazil, Colombia, India, Malaysia, Mexico, Nigeria, the Philippines, South Africa, and Turkey). Measured as a percentage of trade, illicit outflows are highest in some LDCs (e.g. Malawi, Mozambique, Myanmar, and Zambia). Countries receiving the highest amount of trade-related illicit inflows in USD consist mainly of tax havens and low-tax countries (e.g. Argentina, Belarus, Indonesia, Kazakhstan, Morocco, Panama, Thailand, and Vietnam).

A range of policy instruments and recommendations have been developed to address trade misinvoicing and tax evasion in general. First, customs unions need to expand their capacities to make real-time assessments of trade flows to better detect trade misinvoicing. For example, Global Financial Integrity has developed a risk-assessment tool using real-time trade data (Global Financial Integrity, 2019). A second policy instrument is beneficial ownership registries, which require every registered company to name a beneficial owner, in other words an actual person as head of the company. These registries promise to curb financial secrecy and put an end to shell companies, which are key actors in trade misinvoicing. However, only a few countries have implemented beneficial ownership registries yet (among them are Colombia, Ghana, Kenya, Nigeria, and Ukraine, as developing countries). Another policy instrument is anti-money laundering rules developed by the Financial Action Task Force (2018), which need to be incorporated into national laws. Overall, transparency on financial transactions with declared tax havens needs to increase, so that trade misinvoicing can be detected faster. The progress on combating trade misinvoicing has been limited so far because of difficulties in detection and lack of political willingness to implement the proposed policy instruments. Another remaining problem is non-cooperative countries, for which compliance is just not profitable. Tax havens have few incentives to increase transparency and join international tax cooperation initiatives yet.

More efficient custom unions and more transparent registries of firms are necessary to combat multinational tax evasion and retrieve governments' foregone revenues. As initial reform steps, I recommend that developing countries strengthen the cooperation among customs authorities in order to detect trade misinvoicing. Bilateral development cooperation can provide technical support to customs unions on this matter. Furthermore, countries could build up capacities to increase the transparency of financial and tax-related information, and adopt reform proposals such as beneficial ownership registries and anti-money laundering rules.

However, if tax havens persist, trade misinvoicing might just find new global routes. Initial research on trade misinvoicing mostly focuses on its quantitative estimation, but more studies are needed to analyse the illicit trade routes and the effectiveness of anti-evasion instruments. Similarly, the effects of the BEPS package and anti-profit-shifting rules on tax revenue, investment and growth need to be assessed in the future to provide better policy advice. While, on the one hand, revenue gains are expected for countries introducing stricter rules, on the other hand, stricter tax rules might hamper investment in some countries. Thus, stricter anti-tax avoidance and evasion rules could contribute to the trade-off between tax revenue and FDI.

## **4 Reforms of the international tax system**

In order to address the trade-off of mobilizing corporate tax revenue and FDI in parallel, which many developing countries face, fundamental reforms of the international tax system are needed. A transparent and fair tax system and a certain investment environment for foreign investors are key to solving the trade-off. This section presents reform proposals and tax policies that address the trade-off between the two development finance sources. Section 4.1 discusses different tax-transparency initiatives that aim to fight tax avoidance and evasion, while at the same time increasing tax certainty for investors. In Section 4.2, different approaches of countries and multilateral forums are presented to show how loopholes in the taxation of new digital business models can be closed.

The international tax system is facing many challenges created by a more globalised and digitalised world economy. In order to adapt to these global mega-trends, the international tax system needs fundamental reforms. At the core are problems such as the erosion of the nexus principle,<sup>19</sup> multinational profit shifting, and the use of shell companies in tax havens. Relative to their tax-to-GDP ratio, developing countries suffer more from the challenges of international taxation in terms of revenue foregone because they mostly lack technical capacity and negotiation power to address the complex problems and loopholes in the tax system. Developed countries have started initiatives to address the weaknesses of the current international tax system (e.g. the G20/OECD BEPS project). It will be essential for developing countries to join these initiatives and actively participate in shaping new reform agendas in order to create a more sustainable international tax system that generates positive spillovers for FDI and other economic activities.

### **4.1 Increasing tax transparency**

Increasing tax transparency is critical to improve the international tax system, which suffers from revenue losses due to multinational tax avoidance and evasion. Tax transparency encompasses the transparent reporting on tax payments and revenues by companies and tax administrations, as well as information exchange on taxpayers between countries. New instruments mostly focus on exchange of information between tax administrations, whereas

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19 The nexus principle states that income and profits are liable for taxation in the country where value is created. This principle becomes obsolete when it is hard to define the location of value creation for intellectual property and other intangible assets.

only in some cases (for instance, the financial sector and some extractive industries) are data made available to the broader public.

The Global Forum on Transparency and Exchange of Information for Tax Purposes (Global Forum) has played an important role in setting global tax-transparency standards since its foundation in 2000. With 160 members, among which are 18 LDCs and LICs, 24 LMICs, and 44 UMICs,<sup>20</sup> the Global Forum has more members than the Inclusive Framework on BEPS (OECD, 2020). The Global Forum has developed two policy instruments for the exchange of information between tax administrations. First, the Exchange of Information on Request (EOIR) instrument requires tax administrations to share taxpayers' information at the request of other tax administrations. A primary goal of the EOIR is to eliminate bank and ownership secrecy. A success of the Global Forum is that tax havens are also participating. However, developing countries are only just beginning to use the EOIR because they often lack the administrative capacities and expertise to enter a mutual exchange relationship with industrialised countries (Monkam, Ibrahim, Davis, & von Haldenwang, 2018).

A second tax-transparency instrument developed by the Global Forum is the Automatic Exchange of Information (AEOI) between tax administrations. Over 100 countries and jurisdictions have already committed to implement this automated mechanism. This instrument is unique in its kind and will allow tax administrations to better tax and track cross-border payments. For developing countries, fulfilling the common reporting standard required for the AEOI is challenging due to a lack of capacity in the tax administrations. Bilateral development cooperation to increase the capacity of tax administrations and to advance their digitalisation process would enable greater participation in the AEOI.

A third instrument is country-by-country reporting, where tax administrations exchange information on multinational groups. As part of the OECD/G20 BEPS project, country-by-country reporting requires multinational groups to report on their profits, assets, tax payments, etc. to their resident country's tax authority. The OECD published the first round of data at the end of 2019 but only on an aggregate country level. Furthermore, country-by-country reporting is a minimum standard of the Inclusive Framework and thus must be implemented by all its member countries (OECD, 2019a). Developing countries in the Inclusive Framework should be ready to collect and prepare this information in order to increase transparency on MNCs' activities in their countries.

Another transparency instrument that considers taxes is the Extractive Industries Transparency Initiative (EITI), which publishes reports on company tax payments and government revenue from extractive industries. Among the 52 implementing countries are mainly resource-rich countries. EITI promotes good-governance standards for the exploitation of oil, gas, and mineral resources. At the time of writing, USD 2.5 trillion in revenue has been disclosed in EITI reports (EITI, 2019).

Tax transparency and exchange of tax data could help address the trade-off between corporate tax revenue and FDI by enhancing tax certainty, which is an important factor for a good investment climate. If foreign investors have transparent information on their tax obligations and their competitors' tax payments, they can make better profitability

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20 A list of the developing country members of the Global Forum is included in the Appendix.

calculations for their planned investment. Tax transparency is therefore crucial for long-term investment planning. On the other hand, higher transparency standards increase the upfront investment costs of MNCs and thus might hamper investment. Empirical evidence on this is rare, but studies that tested for a negative impact of adopted tax-transparency standards on FDI could not find significant results (Dutt et al., 2018).

To implement the new standards and mechanisms in their tax administrations, developing countries need to build capacity. Bilateral and multilateral development cooperation can assist in the capacity building and digitalisation of tax administrations in developing countries. Furthermore, developing countries should actively participate in ongoing discussions on tax transparency and advancements of the existing exchange of information instruments.

## 4.2 Closing digital tax loopholes

Another weakness of the current international tax system is its many loopholes, which MNCs use to avoid and evade taxes. The OECD's BEPS project (see Section 3.2) already addresses quite a few of these tax loopholes without changing the fundamental principle of source-based taxation. For example, progress has been made with the Multilateral Instrument to curb treaty shopping, and the Transfer Pricing Guidelines to combat profit shifting by MNCs. However, an important issue remains to be addressed by international tax policy. The missing taxation of the digital economy and new business models is currently leaving loopholes through which MNCs slip to avoid paying tax. The reason for this is the obsolete nexus principle, which links a company's physical presence in a state to its eligibility to taxation by that state. This principle no longer applies to the business models that are evolving in today's globalised and digitalised world economy.

The current debate on taxing the digital economy is led by the OECD's Task Force on the Digital Economy, which is due to prepare a final report for the G20 by the end of 2020. In 2018, initial ideas were presented in an interim report, which identifies three characteristics of the digital economy that need to be addressed: "scale without mass, heavy reliance on intangible assets, and the role of data and user participation" (OECD, 2018c). In 2019, a Programme of Work report was released that proposes "revised nexus and profit allocation rules (Pillar One)" and a "Global anti-base erosion proposal (Pillar Two)" (OECD, 2019e). Pillar One "will determine where tax should be paid and on what basis" and will allow taxation "in the jurisdictions where customers and/or users are located" (OECD, 2019e). Pillar Two proposes a minimum corporate tax rate for MNCs, especially those in the digital economy.

Pillar One of the OECD's programme of work relates to a proposal that researchers and tax experts have raised for quite some time: formulary apportionment of income (Hofman & Riedel, 2018). It suggests taxing MNCs at the group level instead of the affiliate level. The MNC's income is apportioned to its affiliates based on a fixed formula, which reflects the economic activity of the different affiliates. Forerunners have been the allocation of corporate income taxes across US states and discussions within the EU on a Common Consolidated Corporate Tax Base (CCCTB). The proposal for a CCCTB has been discussed within the EU since 2011, but political support from member states is still lacking (European Commission, 2019). The new reform proposal is expected to increase overall MNCs' tax payments, but the apportionment rules need to be carefully designed so as not



to cause other market distortions. In particular, countries will need to agree on what a fair tax share is and how a common consolidated tax base is determined.

In the Inclusive Framework on BEPS, developing countries currently participate in the ongoing debate on taxing the digital economy. In particular, regional tax organisations such as the African Tax Administration Forum (ATAF) and the Inter-American Center for Tax Administration (CIAT) are actively engaging in the negotiations at the OECD's Inclusive Framework meetings. Since the reform agenda for taxing the digital economy has not yet been fully set, developing countries should raise their voices and ideas in forming this agenda. However, most probably, developing countries will have less say in how those rules will be designed. Whether developing countries benefit or not from the next global tax reform would depend on the design of formulary apportionment rules or the fixed threshold of a global minimum corporate tax rate.

While multilateral discussions slowly evolve, some developed and developing countries have opted for a unilateral approach. With domestic tax reforms, they try to prevent large revenue losses due to digital transactions and businesses not being taxed. For instance, France introduced a digital tax in 2019 that aims to tax MNCs' profits made in France more efficiently. Several African countries have introduced taxes on digital services in recent years that place a higher tax burden on consumers. For example, Kenya has introduced a tax on mobile money transactions sent via M-Pesa. Similar taxes have been introduced on social media usage in Uganda and Benin, and on internet calls in Zambia (Biryabarema & Bavier, 2018). However, these taxes have reduced the usage of digital services and hampered digital innovation in African countries. Taxing the users of digital services seems to adversely impact economic growth and technological progress. Hence, a global solution is needed to the issue of how the profits of the large distributors of digital services can be taxed adequately. Digital taxes should be collected from the profits made by MNCs, and not be levied as an additional VAT on the consumers.

Summing up, political disagreement persists among countries on the proposed policy instruments to close the tax loopholes of the digital economy. The OECD's Task Force on the Digital Economy reports diverging opinions among groups of countries on how new business models and digital companies should be taxed (OECD, 2018c). Some African countries introduced unilateral approaches to tax digital services but, despite the expected revenue gains, the reforms have caused market distortions. Thus, formulary apportionment of income of MNCs according to Pillar One of the OECD's current programme of work seems the most promising solution for the long-term future, but consensus might be hard to find, as the EU case shows. Whether developing countries will profit from such a global tax reform remains to be seen. High-tax developing countries might be able to increase their corporate tax revenues, whereas tax havens in the developing world might lose revenue, which would make it hard to convince them to support such a reform.

## 5 Conclusions and policy recommendations

International tax policies have a large impact on the size and direction of two important development finance flows: corporate tax revenue and FDI. This paper finds that whether or not a tax policy instrument is creating a trade-off between the two flows depends on the countries' economic and institutional development, the overall investment environment, and the mix of policy instruments used.

Tax incentives (e.g. low corporate income tax rates, tax expenditures and tax incentives in bilateral tax treaties) are likely to contribute to a trade-off between corporate tax revenue and FDI. Therefore, their costs and benefits should be calculated upfront before a tax incentive is provided to foreign investors. A cost-benefit analysis of lowering corporate tax rates and giving tax expenditures can be useful, as can the calculation of effective tax rates for MNCs. Tax incentives should be well-designed and directed at sectors that attract efficiency-seeking FDI. Assistance to developing countries could be provided by bilateral development cooperation. Similarly, the negotiation of tax treaties requires an upfront analysis of potential benefits and losses. It is recommended that the Multilateral Instrument covers all tax treaties already in place in order to curb tax avoidance by treaty shopping. However, it does not replace the asymmetries in many tax treaties between developed and developing countries, which result in an unfair sharing of tax rights.

Another problem eroding the corporate tax base is tax avoidance and tax evasion by MNCs, which cause the loss of billions of dollars of tax revenue each year in developed and developing countries. The Inclusive Framework on BEPS is designing new international tax rules for MNCs to fight tax avoidance via profit shifting. The implementation of several anti-tax avoidance rules is required for its 137 members, including 66 developing countries. However, the enforcement of international tax rules is very complex and many developing countries therefore require assistance and capacity building. Applying such rules consistently involves additional administrative costs for governments and companies, which might hamper investment, yet this effect is expected to be small compared to the benefits of an increased tax base. Similarly, trade misinvoicing is the main channel for corporate tax evasion and could be tackled by, for example, better coordination and transparency between customs unions and tax administrations.

Many developing countries claim that the Inclusive Framework is an OECD/G20 construct and did not take developing countries' concerns into consideration from the beginning. Thus, it is important that countries are also able to come together on other platforms to discuss solutions for their countries and regions. An additional inclusive forum is the Addis Tax Initiative,<sup>21</sup> the main goal of which is to enhance domestic revenue mobilisation in partner countries – amongst others in the field of tax and customs administration. The Platform for Collaboration on Tax is another more inclusive tax forum that coordinates the work on tax by four international organisations (IMF, OECD, UN and World Bank). Regional tax organisations, such as ATAF and CIAT, play an important role in supporting developing countries to actively participate in the multilateral fora on tax.

Having discussed the key problems in international taxation that lead to decreasing corporate tax revenues and trade-offs with FDI, this study has also identified some proposals

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21 See the Appendix for a list of developing country members of the Addis Tax Initiative.

that promise to reform the international tax system and address the trade-off. These include tax transparency initiatives and reform proposals on taxing the digital economy. Increasing tax transparency is seen as beneficial by most countries (excluding some tax havens). The Global Forum on transparency and exchange of information reached 160 members in 2020 and installed two important instruments (AEOI and EOIR) for tax administrations to exchange information with their counterparts abroad. An increase in tax transparency standards reduces tax avoidance and evasion, and tax certainty for foreign investors. Another much discussed topic in international taxation is a current reform proposal for taxing the digital economy adequately, which will be decided on by the Inclusive Framework in 2020. Many developing countries actively participate in the meetings and try to make sure that the rules that are developed will fit their needs and capabilities.

To conclude, the participation of developing countries in setting the international tax agenda should be enhanced, with representatives of regional tax organisations bringing developing countries' common experience and ideas to the discussion. At the domestic level, countries need to build capacity to enforce complex international tax rules and eliminate or renegotiate tax policy instruments that cause harmful trade-offs. Which reforms need to be taken first depends on a country's economic and institutional development. In general, LDCs and LICs could be supported in building capacity and better digital infrastructure in their tax and customs administrations. LMICs and UMICs mostly have administrative and legal frameworks in place, but they struggle with the enforcement of complex international tax rules and policies. The goal of all corporate tax policies should be to create a sufficiently large corporate tax base to generate revenue for the financing of public goods and sustainable development, alongside a good investment environment that attracts FDI.

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## Appendix

<b>Table A1: List of developing countries with key data and memberships</b>										
Country	Country code	Country group	Total tax revenue (% GDP)	Corp. tax revenue (% GDP)	FDI inward stock (USD billion)	EU tax haven list	Inclusive Framework	Transfer pricing rules	Global Forum	Addis Tax Initiative
Afghanistan	AFG	LDC	7.77	0.78	1.36	HR				YES
Albania	ALB	UMIC	23.81	1.01	5.38		YES	YES	YES	
Algeria	DZA	UMIC			27.72			YES		
Angola	AGO	LDC	25.91		12.21		YES	YES		
Antigua and Barbuda	ATG	UMIC		1.26	0.67		YES		YES	
Argentina	ARG	UMIC	31.64	2.87	75.73		YES	YES	YES	
Armenia	ARM	LMIC	20.93	2.51	4.57		YES	YES	YES	
Azerbaijan	AZE	UMIC	16.51		26.15			YES	YES	
Bangladesh	BGD	LDC	8.08	1.63	14.00			YES		
Belarus	BLR	UMIC	35.78	2.70	18.79			YES		
Belize	BLZ	UMIC	24.59		2.10		YES		YES	
Benin	BEN	LDC			1.82		YES		YES	YES
Bhutan	BTN	LDC	14.48	6.15	0.18					
Bolivia	BOL	LMIC	28.75		11.84			YES		
Bosnia and Herzegovina	BIH	UMIC	38.06	1.48	7.40	W/HR	YES	YES	YES	
Botswana	BWA	UMIC	23.23		5.21	W	YES		YES	
Brazil	BRA	UMIC	33.86	3.16	683.28		YES	YES	YES	
Burkina Faso	BFA	LDC	14.52		2.22		YES		YES	YES
Burundi	BDI	LDC			0.25					
Cabo Verde	CPV	LMIC	18.90		1.71		YES	YES	YES	
Cambodia	KHM	LDC	14.65	2.61	18.22			YES	YES	
Cameroon	CMR	UMIC	15.75	2.38	5.80		YES		YES	YES
Central African Republic	CAF	LDC			0.64					
Chad	TCD	LDC	5.98		5.13				YES	
China (People's Republic of)	CHN	UMIC	24.08	3.87	1355.48		YES	YES	YES	
Colombia	COL	UMIC	19.67		164.64		YES	YES	YES	
Comoros	COM	LDC	11.14		0.12					
Congo	COG	LMIC	17.52		26.76		YES			
Cook Islands	COK	UMIC			0.08		YES		YES	



<b>Table A1 (cont): List of developing countries with key data and memberships</b>										
Costa Rica	CRI	UMIC	13.59	2.71	34.02		YES	YES	YES	
Côte d'Ivoire	CIV	LMIC	15.56		8.18		YES	YES	YES	
Cuba	CUB	UMIC	38.55							
Democratic People's Republic of Korea	PRK	LIC		HR	0.76					
Democratic Republic of the Congo	COD	LDC	10.86	1.11	21.23		YES			
Djibouti	DJI	LDC	19.50		1.79		YES		YES	
Dominica	DMA	UMIC	21.86		0.35		YES		YES	
Dominican Republic	DOM	UMIC	13.53	2.08	33.34		YES	YES	YES	
Ecuador	ECU	UMIC	15.28	1.38	16.60			YES	YES	
Egypt	EGY	LMIC		3.24	102.10		YES	YES	YES	
El Salvador	SLV	LMIC	15.37	3.58	9.21			YES	YES	
Equatorial Guinea	GNQ	UMIC	9.63		13.49					
Eritrea	ERI	LDC			0.94					
Eswatini	SWZ	LMIC	25.73	2.67	0.72	W	YES		YES	
Ethiopia	ETH	LDC			14.79	HR				YES
Fiji	FJI	UMIC	25.48	3.63	4.12	NC		YES		
North Macedonia	MKD	UMIC	24.99	1.82	5.19		YES	YES	YES	
Gabon	GAB	UMIC			8.08		YES	YES	YES	
Gambia	GMB	LDC	17.17		0.36					YES
Georgia	GEO	LMIC	25.56	3.1	15.12		YES	YES	YES	YES
Ghana	GHA	LMIC	15.34	1.97	29.81			YES	YES	YES
Grenada	GRD	UMIC	20.03		2.14		YES		YES	
Guatemala	GTM	LMIC	10.66	3.54	14.36			YES	YES	
Guinea	GIN	LDC	13.73		3.40				YES	
Guinea-Bissau	GNB	LDC	9.68		0.16					
Guyana	GUY	UMIC	21.56		3.02	HR			YES	
Haiti	HTI	LDC	13.52		1.46		YES		YES	
Honduras	HND	LMIC	21.83		13.86		YES	YES	YES	
India	IND	LMIC			326.26		YES	YES	YES	
Indonesia	IDN	LMIC	10.56		240.26		YES	YES	YES	YES
Iran	IRN	UMIC	7.55		49.02	HT				
Iraq	IRQ	UMIC			10.13	HR		YES		
Jamaica	JAM	UMIC	24.74	2.7	15.06		YES		YES	
Jordan	JOR	LMIC	15.50	2.7	32.23	W	YES	YES	YES	
Kazakhstan	KAZ	UMIC	15.77		141.30		YES	YES	YES	

<b>Table A1 (cont): List of developing countries with key data and memberships</b>										
Kenya	KEN	LMIC	16.10		11.33		YES	YES	YES	YES
Kiribati	KIR	LDC	16.05		0.01					
Kosovo	RKS	LMIC						YES		
Kyrgyzstan	KGZ	LMIC	25.70	2.45	5.14					
Lao People's Democratic Republic	LAO	LDC	13.12	1.35	5.69	HR				
Lebanon	LBN	UMIC	13.84		61.07			YES	YES	
Lesotho	LSO	LDC	38.66	2.87	0.53				YES	
Liberia	LBR	LDC	18.62		8.26		YES		YES	YES
Libya	LBY	UMIC			18.46					
Madagascar	MDG	LDC	10.67		6.01			YES	YES	YES
Malawi	MWI	LDC	15.29	2.69	1.21			YES		YES
Malaysia	MYS	UMIC	14.03	5.85	126.10		YES	YES	YES	
Maldives	MDV	UMIC	19.97	4.05	3.23	W	YES	YES	YES	
Mali	MLI	LDC	14.43		3.42					
Marshall Islands	MHL	UMIC			0.07				YES	
Mauritania	MRT	LDC	15.85		6.77				YES	
Mauritius	MUS	UMIC	18.89	2.41	4.63		YES		YES	
Mexico	MEX	UMIC	13.94	3.48	488.21		YES	YES	YES	
Micronesia	FSM	LMIC	12.80	7.19	0.24					
Moldova	MDA	LMIC	31.56	2.09	3.18				YES	
Mongolia	MNG	LMIC	21.27	2.17	18.33	W	YES	YES	YES	YES
Montenegro	MNE	UMIC	37.09	1.14	4.81		YES	YES	YES	
Montserrat	MSR	UMIC			0.03		YES		YES	
Morocco	MAR	LMIC	21.30	4.35	55.71	W	YES	YES	YES	
Mozambique	MOZ	LDC	20.92		34.34					
Myanmar	MMR	LDC	7.56		23.92					
Namibia	NAM	UMIC	31.35	4.65	4.64	W	YES	YES	YES	YES
Nauru	NRU	UMIC	20.70						YES	
Nepal	NPL	LDC	17.72	3.75	1.32					YES
Nicaragua	NIC	LMIC	22.44	0	9.93			YES		
Niger	NER	LDC	16.04		5.61				YES	
Nigeria	NGA	LMIC		0.96	93.87		YES	YES	YES	
Niue	NIU	UMIC							YES	
Pakistan	PAK	LMIC			39.93	HR	YES	YES	YES	YES
Palau	PLW	UMIC	19.10	0	0.39	NC			YES	

<b>Table A1 (cont): List of developing countries with key data and memberships</b>										
Panama	PAN	UMIC	15.50		44.89	NC	YES	YES	YES	
Papua New Guinea	PNG	LMIC	14.31		4.45		YES	YES	YES	
Paraguay	PRY	UMIC	14.02	2.09	5.08		YES	YES	YES	YES
Peru	PER	UMIC	14.14	3.88	91.45		YES	YES	YES	
Philippines	PHL	LMIC	13.65	3.69	67.27			YES	YES	YES
Rwanda	RWA	LDC	15.29	2.65	1.63				YES	YES
Saint Helena	SHN	UMIC								
Saint Lucia	LCA	UMIC	21.00	2.03	0.81	W	YES		YES	
Saint Vincent and the Grenadines	VCT	UMIC	23.66	3.12	1.10		YES		YES	
Samoa	WSM	UMIC	23.45	2.46	0.08	NC			YES	
Sao Tome and Principe	STP	LDC	14.33		0.43					
Senegal	SEN	LDC	20.14	1.47	4.02		YES		YES	YES
Serbia	SRB	UMIC	35.43	1.77	32.37		YES	YES	YES	
Sierra Leone	SLE	LDC	10.04	1.33	1.10		YES			YES
Solomon Islands	SLB	LDC	27.94	5.25	0.55					YES
Somalia	SOM	LDC	1.32		1.95					
South Africa	ZAF	UMIC	29.43	5.47	137.39		YES	YES	YES	
South Sudan	SSD	LDC						YES		
Sri Lanka	LKA	LMIC	12.52	1.38	10.31	HR	YES	YES		
Sudan	SDN	LDC	6.15		25.47					
Suriname	SUR	UMIC	17.31		1.80					
Syrian Arab Republic	SYR	LMIC			10.74	HR				
Tajikistan	TJK	LMIC	21.30		2.31					
Tanzania	TZA	LDC	11.43	1.9	19.11			YES	YES	YES
Thailand	THA	UMIC	18.50	4.2	197.93	W	YES	YES	YES	
Timor-Leste	TLS	LDC			0.34					
Togo	TGO	LDC	21.56	1.97	1.63				YES	
Tokelau	TKL	LMIC								
Tonga	TON	UMIC	17.85		0.43					
Tunisia	TUN	LMIC	30.26	1.61	29.93	HR	YES	YES	YES	
Turkey	TUR	UMIC	25.19	1.65	160.67		YES	YES	YES	
Turkmenistan	TKM	UMIC			31.96					
Tuvalu	TUV	LDC			0.01					
Uganda	UGA	LDC	12.10		11.22	HR		YES	YES	YES
Ukraine	UKR	LMIC	32.67	2.52	48.80		YES	YES	YES	

<b>Table A1 (cont): List of developing countries with key data and memberships</b>										
Uzbekistan	UZB	LMIC	27.35		9.14					
Vanuatu	VUT	LDC	16.12		0.53	NC/HR			YES	
Venezuela	VEN	UMIC	17.24	0	24.63			YES		
Viet Nam	VNM	LMIC	18.22	3.6	115.89		YES	YES	YES	
Wallis and Futuna	WLF	UMIC								
West Bank and Gaza Strip	PS-GZA	LMIC								
Yemen	YEM	LDC			2.96	HR				
Zambia	ZMB	LDC	13.67		16.96		YES	YES		
Zimbabwe	ZWE	LIC	21.08	1.63	4.31			YES		
<p>Notes: Total tax revenue and FDI inward stock values are averaged over the years 2015–2017. Corporate tax revenue is reported for the year 2016. For countries on the EU lists, the following statuses are indicated: NC = Non-cooperative list, W = Watch list, and HR = High-risk third country list.</p> <p>Sources: DAC recipients list (OECD, 2018a); Government Revenue Dataset (ICTD/UNU-WIDER, 2020); FDI Statistics (UNCTAD, 2018a); EU list of non-cooperative jurisdictions on tax purposes, Annexes I and II (European Council, 2020); European Commission list of high risk third countries (The Law Society, 2020); Inclusive Framework membership list (OECD, 2019c); EY Worldwide Transfer Pricing Reference Guide (Ernst &amp; Young, 2019); Global Forum membership list (OECD, 2020), Addis Tax Initiative (2020).</p>										

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