

UNCTAD

Investment and Enterprise Division

FDI, Tax and Development

The fiscal role of multinational enterprises: towards guidelines for Coherent International Tax and Investment Policies

A working paper for review and feedback

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WORKING PAPER

This working paper represents research in progress in UNCTAD's Division on Investment and Enterprise. It is meant as a basis for broad discussion and circulated with the objective to obtain external feedback to support further work. To that end, the proposed draft guidelines for Coherent International Tax and Investment Policies are also made available on UNCTAD's Investment Policy Hub, which provides a forum for discussion and allows users to comment and make suggestions. See <http://investmentpolicyhub.unctad.org/>.

PURPOSE OF THIS WORKING PAPER

In recent years there has been increasing scrutiny from policymakers, international organizations and non-governmental organizations (NGOs) of the tax contributions of multinational enterprises (MNEs). At the time of publication of this working paper significant efforts are well underway in the international community, in particular in the G20, led by the OECD, to examine options to tackle tax avoidance opportunities that derive from the cross-border nature of MNE operations. These efforts have already led to a freshly signed agreement among some 50 original signatory governments to improve tax-related information sharing. They have also led to an Action Plan on Base Erosion and Profit Shifting (BEPS) and other concrete proposals.

A full and balanced analysis of the links between multinational operations, investment, tax and development requires a broad scope, including not only the potential fiscal leakage associated with international investment for host and home countries, but also the positive direct and indirect fiscal contributions deriving from FDI.

This working paper aims specifically to add value to the debate that is ongoing in the international community on MNE tax avoidance, providing an investment and development perspective:

- *First*, it aims to provide a baseline for the tax avoidance debate – currently absent – providing estimates for the contribution of MNEs to government revenues in developing countries.
- *Second*, it aims to provide an investment perspective on international tax avoidance, leading to new insights on the links between investment and tax policies and resulting in a set of guiding principles to ensure coherence between the two.
- *Third*, the paper (including its Technical Annexes) responds to demand in the international community for new ideas and methodological approaches to examining the fiscal impact of multinational enterprises – including an explicit call in the OECD/G20 BEPS Action Plan.

We explicitly request feedback on all aspects of this working paper, and in particular on the proposed guidelines for Coherent International Tax and Investment Policies, through the Investment Policy Hub (<http://investmentpolicyhub.unctad.org/>). Feedback will be used to support further work on the links between investment, tax and development, including in the preparatory process for the *World Investment Report 2015*.

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EXECUTIVE SUMMARY

Intense debate and concrete policy work is ongoing in the international community on the fiscal contribution of multinational enterprises (MNEs). The focus is predominantly on tax avoidance – notably in the G20/OECD project on Base Erosion and Profit Shifting (BEPS). At the same time, sustained investment is needed in global economic growth and development, especially in light of financing needs for the prospective Sustainable Development Goals (SDGs). The policy imperative is taking action against tax avoidance while continuing to facilitate productive investment.

Policymakers and experts at work in the BEPS process have so far not attempted to quantify the value at stake for government revenues. Various research institutes and NGOs have put forward estimates for the amount of taxes avoided by MNEs. To date, however, there is no consensus estimate, in no small part because of the absence of a baseline establishing the actual contribution of MNEs.

The fiscal contribution of MNEs in developing countries amounts to around \$730 billion per year, or 10% of total government revenues.

UNCTAD estimates the contribution of MNE foreign affiliates to government budgets in developing countries at \$730 billion annually. This represents, on average, around 23% of corporate payments and 10% of total government revenues. (In developed countries these shares are around 15% and 5%, respectively.) The relative size and composition of this contribution varies by country and region. African countries show the highest relative contribution of foreign affiliates at more than a quarter of corporate contributions and at 14% of total government revenues.

In the context of the Financing for Development debate, where improving domestic resource mobilization is a key pillar under plans to fund progress towards the SDGs, it is important to point out that the level of economic development and the degree of informality are more significant drivers of variations in revenue collection between countries than the presence of MNEs. As a general rule, the lower a country is on the development ladder, the higher is the share of corporates in government revenue generation, and the greater the importance of non-tax revenue streams contributed by firms. For foreign affiliates, on average, contributions through royalties on natural resources, tariffs, payroll taxes and social contributions, and other types of taxes and levies are twice as important as corporate income taxes.

Notwithstanding their overall role as contributors to government revenues, MNEs, like all firms, aim to minimize taxes. MNEs build their corporate structures through cross-border investment. They will do so in the most tax-efficient manner possible, within the constraints of their business and operational needs. The size and direction of foreign direct investment (FDI) flows are thus often influenced by MNE tax considerations, because the structure and modality of initial *investments* enable tax avoidance opportunities on subsequent investment *income*. The attention of policymakers in tackling tax avoidance, most notably in the BEPS approach, focuses naturally on tax rules and transparency principles – i.e. on accounting for *income*. The fundamental role of *investment* as the enabler of tax avoidance warrants a complementary perspective.

An investment perspective on international taxation highlights the role of offshore investment hubs: 30% of global cross-border corporate investment passes through hubs.

An investment perspective on tax avoidance puts the spotlight on the role of offshore investment hubs as major players in global investment. Some 30% of cross-border corporate investment stocks – FDI, plus investments through Special Purpose Entities (SPEs) – have been routed through offshore hubs before reaching their destination as productive assets. The growth of transit investment saw a sharp acceleration during the second half of the 2000s.

The root-cause of the outsized role of offshore hubs in global corporate investments is tax planning, although other factors can play a supporting role. MNEs employ a wide range of tax avoidance levers, enabled by tax rate differentials between jurisdictions, legislative mismatches, and tax treaties. MNE tax planning involves complex multilayered corporate structures. From an investment perspective, two

archetypal categories stand out: (i) intangibles-based transfer pricing schemes and (ii) financing schemes. Both schemes, which are representative of a relevant part of tax avoidance practices, make use of investment structures involving entities in offshore investment hubs.

Annual tax revenue losses for developing countries from MNE tax avoidance through offshore investment links amount to some \$100 billion

Tax avoidance practices by MNEs are a global issue relevant to all countries: the exposure to investments from offshore hubs is broadly similar for developing and developed countries. However, profit shifting out of developing countries can have a significant negative impact on their sustainable development prospects. Developing countries are often less equipped to deal with highly complex tax avoidance practices because of resource constraints or lack of technical expertise.

Tax avoidance practices are responsible for a significant leakage of development financing resources. An estimated \$100 billion of annual tax revenue losses for developing countries is related to inward investment stocks directly linked to offshore hubs. On average, across developing economies, an additional 10% share of inward investment stock originating from offshore investment hubs is associated with a decrease in the reported (taxable) rate of return of more than 1 percentage point. The estimated tax losses represent around one-third of corporate income taxes that would be due in the absence of profit shifting.

These averages disguise country-specific impacts. Tax avoidance practices by MNEs and international investors lead to basic issues of fairness in the distribution of tax revenues between jurisdictions that must be addressed. At a particular disadvantage are countries with limited tax collection capabilities, greater reliance on tax revenues from corporate investors, and growing exposure to offshore investments.

However, in tackling tax avoidance, policymakers should be aware that the potential value at stake – taking into account the total contribution of MNEs as well as the fiscal discounts actively provided by governments in the form of incentives to attract investment – is almost ten times larger than the revenue leakage. This is not considering the value at stake in terms of much needed new productive investments.

Taking action on tax avoidance will have effects on international investment that must be considered carefully. Currently, offshore investment hubs play a systemic role in international investment flows. Any measures at the international level that might affect the "investment facilitation" role of offshore hubs, or that might affect key investment facilitation levers (such as multilateralization of tax treaties), must take into account the potential impact on global investment and include an investment policy perspective.

Ongoing anti-avoidance discussions in the international community pay limited attention to investment policy. The role of investment in building the corporate structures that enable tax avoidance is fundamental. Therefore, investment policy should form an integral part of any solution. Conversely, any policy initiative tackling tax avoidance by international investors is likely to affect national and international investment policies.

A set of guidelines for Coherent International Tax and Investment Policies may help realize the synergies between investment policy and initiatives to counter tax avoidance. Key objectives of the 10 guidelines proposed for discussion in this working paper include: removal of aggressive tax planning opportunities as investment promotion levers; mitigation of the impact on investment of tax avoidance measures; recognition of shared responsibilities between investor host, home and conduit countries and the consequent need for a partnership approach; acknowledgement of links between international investment and tax agreements; and understanding of the role of both investment and fiscal revenues in sustainable development and of the capabilities in developing countries to address tax avoidance issues.

Investment patterns enable avoidance, anti-avoidance measures will impact on investment: national and international tax and investment policies must work in synergy.

INTRODUCTION: THE TAX AND INVESTMENT POLICY IMPERATIVE

Intense debate and concrete policy work is ongoing in the international community on the fiscal contribution of MNEs. The focus is predominantly on tax avoidance – notably in the BEPS project. At the same time, sustained investment is needed in global economic growth and development, especially in light of financing needs for the SDGs. The policy imperative is taking action against tax avoidance while continuing to facilitate productive investment.

The fiscal contribution of MNEs has been at the center of attention for some time. Numerous instances of well-known firms paying little or no taxes in some jurisdictions despite obviously significant business interests have led to public protests, consumer action, and intense regulatory scrutiny. Action groups and NGOs have brought to light cases of abusive fiscal practices of MNEs in some of the poorest developing countries. Broad support in the international community for action against tax avoidance by MNEs has led to a G20 initiative to counter base erosion and profit shifting (BEPS), led by the OECD, which is the main (and mainstream) policy action in the international tax arena at the moment.

The formulation of the post-2015 development agenda and the financing needs associated with the SDGs have added to the spot light on the fiscal contribution of MNEs as an important source of revenue for governments and a crucial element of resource mobilization for sustainable development. Conversely, the SDG-formulation process has also highlighted the need for increased private sector investment. The *World Investment Report 2014 (WIR14)* showed how public investment will be insufficient to cover an estimated \$2.5 trillion annual investment gap in developing countries in productive capacity, infrastructure, agriculture, services, renewables and other sectors. New private investment not only contributes directly towards progress on the SDGs, but also adds to economic growth and the future tax base.

The dilemma is clear: how can policymakers take action against tax avoidance to ensure that MNEs pay "the right amount of tax, at the right time, and in the right place" while avoiding excessive tightening of the fiscal regime for MNEs which might have a negative impact on investment. In other words, how can they maximize immediate tax revenues from international investment while maintaining a sufficiently attractive investment climate to protect the existing and future tax base. If sustainable development requires both public and private investment, the fiscal climate for investors must be balanced to ensure sufficient *revenues* to support public investment and sufficient *returns* to promote private investment. This dilemma is especially pertinent for structurally weak economies and the least developed countries (LDCs), where public investment needs are often more acute for basic development purposes.

The links between investment and tax policy go in both directions:

- Tax is a key *investment determinant* influencing the attractiveness of a location or an economy for international investors.
- Taxation, tax reliefs and other *fiscal incentives* are a key policy tool to attract investors.
- Investors, once established, add to economic activity and the tax base of host economies and make a direct and indirect *fiscal contribution*.
- International investors and MNEs, by the nature of their international operations, have opportunities for tax arbitrage between jurisdictions and *tax avoidance*.

The focus of this working paper is on the latter two links, on the balance between the fiscal contribution of MNEs and the extent to which they engage in tax avoidance, as this is at the core of the debate in the international community today. Any policy action aimed at altering this balance, including the policy actions resulting from the BEPS programme, will have to bear in mind the first and most important link: that of tax as a determinant for investment.

In the debate on public revenue contributions of MNEs, fiscal incentives for investors are also often considered a form of "leakage" or "slippage" of tax revenues for governments, much like tax avoidance schemes (although strictly speaking, to the extent that incentives are effective and efficient, they should be considered as the cost of attracting the investment through which the tax base is created). They feature in the BEPS discussion where policy action is relevant, for example, to avoid that incentives become part of the tax avoidance toolkit of MNEs, leading them to shift profits to locations with tax holidays. Incentives and tax avoidance have other parallels – tolerance by authorities of "aggressive" tax minimization schemes can be seen as a (less transparent) alternative to explicitly provided incentives. Nevertheless, this working paper will not attempt to add to the vast body of existing analysis on fiscal incentives and their relative ineffectiveness, but rather focus on key knowledge gaps in the ongoing international debate:

- How much do MNEs contribute to government revenues, especially in developing countries? What is the value at stake, or the baseline, for policy action against tax avoidance?
- How do patterns of international investment flows and stocks drive MNE tax contributions as well as tax avoidance opportunities, and what is the impact on fiscal revenues for developing countries?
- On balance, what is the net fiscal contribution of MNE activity and what are the implications for the links between tax and investment policy, especially in the context of anti-avoidance policy action and BEPS?

As such, the paper helps lay the foundation for a discussion on harmful tax competition.

The working paper is structured as follows:

Chapter I looks at the contribution of MNEs to government revenues, especially in developing countries, taking a broad approach including fiscal contributions through corporate income tax, as well as other taxes, social contributions and other revenue sources including, critically, royalties on natural resources.

Chapter II provides the key analytical results on the magnitude and patterns of international corporate investments through offshore investment hubs. It presents an innovative perspective on indirect or transit investment flows in the global economy – the *Offshore Investment Matrix* – and shows the extent to which investment and tax considerations are inextricably intertwined. The chapter also describes the root causes behind the outsized role of offshore hubs in global investment and reviews the most relevant MNE tax planning schemes. It specifically highlights those schemes that are most dependent on offshore structures and therefore most visible in global investment patterns.

Chapter III focuses on the development impact of tax avoidance schemes and estimates the related tax revenue losses for developing economies. It provides estimates that can be considered complementary to existing efforts in the international community, but derived from a new approach based on the *Offshore Investment Matrix*.

Chapter IV draws policy conclusions from taking an investment perspective on MNE tax planning practices and brings them together in a set of guidelines for Coherent International Tax and Investment Policies.

The annexes accompanying this working paper provide the detailed methodology and approach for the two key analytical contributions of the paper: the fiscal contribution of MNEs and the investment perspective on international tax avoidance (including the *OFC Investment Matrix* and the tax revenue loss calculations). The two technical annexes are a specific response to requests by the G20/OECD BEPS team for inputs and ideas for measuring the fiscal impact of MNEs. A third non-technical annex provides an overview of existing countermeasures to tackle tax avoidance and an account of the ongoing debate in the international community.

I. MNEs AS A SOURCE OF GOVERNMENT REVENUES FOR DEVELOPMENT

Policymakers and experts at work in the BEPS process have so far not attempted to quantify the value at stake for government revenues. Various research institutes and NGOs have put forward estimates for the amount of taxes avoided by MNEs in developing economies. To date, there is no estimate of a baseline establishing the actual contribution of firms in general and MNEs in particular.

To measure the value at stake at the intersection between international tax and investment policy, and to set a baseline for any discussion on tax avoidance by MNEs, this chapter will examine the overall contribution of foreign affiliates of MNEs to government revenues. The focus will be on developing countries (although an estimate for global contributions, including developed economies, will also be provided).

In order to understand the context within which MNEs pay taxes, social contributions, and other levies and fees, the chapter will first provide a broad picture and breakdown of government revenues overall and look at differences in revenue collection between economies at various levels of development. This initial examination of overall government revenues is instrumental to the approach to estimating MNE contributions developed in this paper; the approach zooms in from overall government revenues, to overall corporate contributions (domestic and foreign), and finally to foreign affiliate contributions. Such an approach ensures that margins of error in estimations are confined along the way. Nevertheless, as available data on foreign operations and taxes payments of MNEs are limited and fragmented, the analytical approach has been heuristic, employing a variety of sources and methods to converge towards a meaningful order of magnitude of MNE contributions. Annex I describes in detail the data approach and analytical steps.

Looking at the broader backdrop for foreign affiliate contributions to government income makes clear that some characteristics of revenue collection in developing economies that might at first glance appear to be a function primarily of the fiscal behavior of investors are in fact often due largely to structural features of the economy. This is important in the context of the ongoing Financing for Development debate, where improving domestic resource mobilization is a key pillar under plans to fund progress towards the SDGs. Policymakers should assess on a case-by-case basis whether policy action focusing primarily on foreign investors is the most effective way to improve resource mobilization.

At the same time, UNCTAD's estimates show that the fiscal impact of MNE foreign affiliates in developing countries is sizable and that their contributions represent an important part of total government revenues. These findings support the need for a balanced approach to tightening fiscal regimes for MNEs, through appropriate measures that preserve the financing pool provided by MNEs while at the same time tackling tax avoidance.

It is important to note that the approach taken here assesses not only the pure tax contribution of MNEs (corporate income as well as other taxes) but also other contributions to government revenues, including royalties on natural resources, in order to provide a full picture of the value at stake. In all cases data will be transparent and clearly distinguish actual tax from other types of contributions.

Finally, the aim in this chapter is not to arrive at a value *judgement* on the fiscal contribution of MNEs (i.e. whether it is "enough"), but only at a rough but objective value *measurement*, as a baseline for the subsequent tax avoidance discussion.

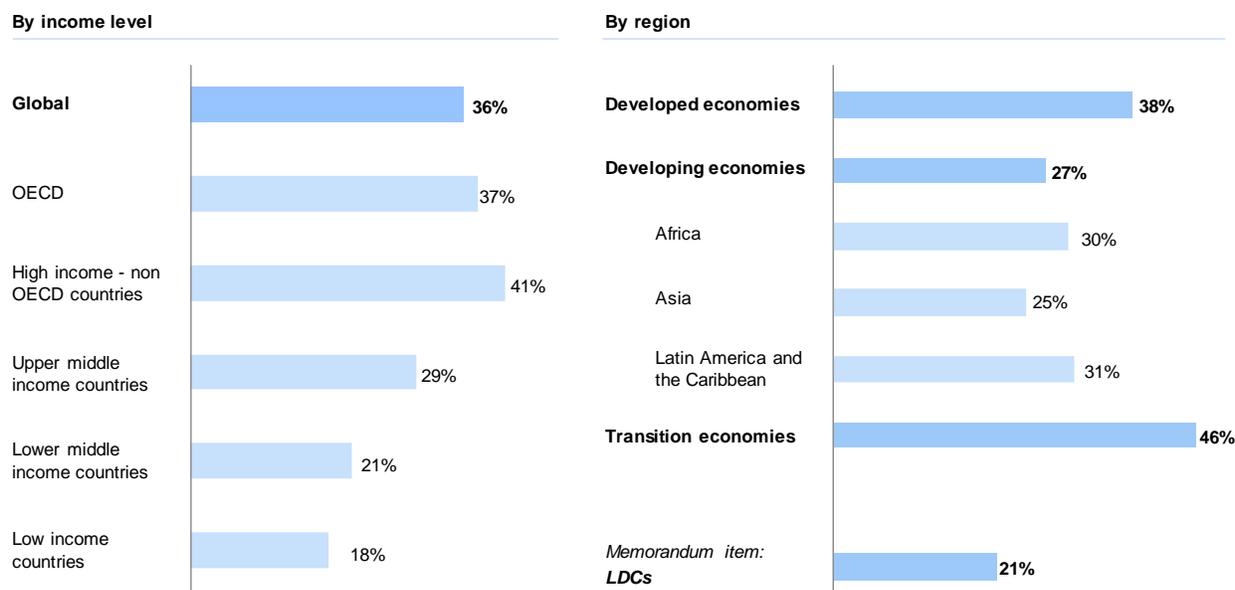
A. Government revenues and revenue collection in developing countries

In the context of the Financing for Development debate, where improving domestic resource mobilization is a key pillar under plans to fund progress towards the SDGs, it is important to point out that the level of economic development is generally a more significant driver of variations in revenue collection than natural resource endowment or the presence of MNEs. As a general rule, the lower the level of development of a country, the higher is the share of corporates in government revenue generation, and the greater the importance of non-tax revenue streams contributed by firms, including royalties on natural resources, tariffs and other levies.

There are large variations in government revenue collection between countries and regions. Looking at government revenues as a share of GDP, a key driver for such variations is the level of income of economies (Figure 1). High-income countries collect around 40% of GDP in taxes, social contributions and other revenues, low-income countries less than 20%.

Looking at economic groupings and regions provides a mixed picture because of large variations between countries within each region. The weighted average collection ratio of developing countries is still more than 10 percentage points lower than that of developed countries. The 30% of GDP collected in Africa, which compares favorably with the developing-country average of 27%, is skewed by a few upper-middle income countries with above-average revenues (mostly due to income from natural resources) that make up for much lower collection ratios in a large group of low-income countries. The lowest levels of revenue collection as a share of GDP are found among the least developed countries (LDCs) in Asia.

Figure 1. Differences in government revenue collection
Government revenues as a share of GDP, weighted averages

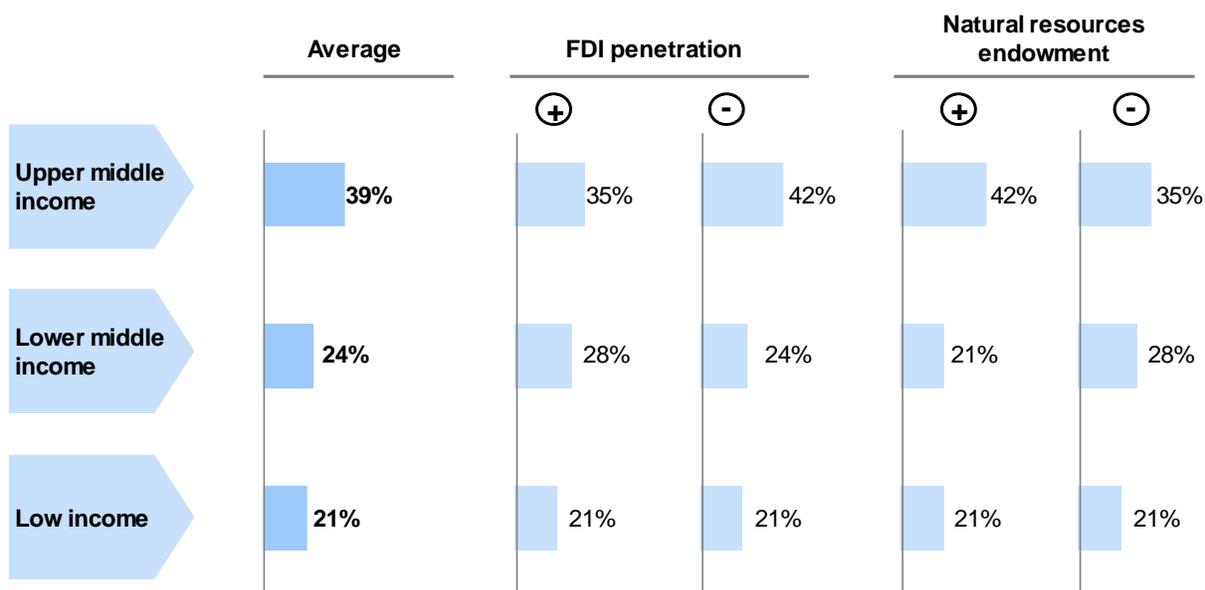


Source: UNCTAD analysis, based on the ICTD Government Revenue Dataset, release September 2014, reference year 2009.
Note: Full details on data sources and methods provided in Annex I.

Overall the level of economic development and related issues of governance and high degrees of informality are generally more significant drivers of variations in total revenue collection than natural resource endowment or the presence of MNEs. Figure 2, which focuses specifically on Africa, shows that

at given levels of per capita income, especially at lower income levels, the availability of natural resources and the penetration of FDI do not substantially change revenue collection as a share of GDP.

Figure 2. Relationship between FDI penetration, resource endowments and government revenues
Government revenues as a share of GDP, weighted averages, Africa



Source: UNCTAD analysis, based on the ICTD Government Revenue Dataset.

Note: For FDI penetration, for each income-level group of countries, "+" is assigned to countries ranking in the top half in terms of the ratio of FDI stock over GDP. For natural resources: "+" is assigned to countries >75% commodities in total exports.

The composition of government revenues (Figure 3) reveals further insights.¹

- i. At the first level of disaggregation (left-hand chart in Figure 3), splitting total revenues by taxes, social contributions and other revenues (which include, among others, royalties on natural resources, income on property, and official development assistance or grants) developed countries show a larger proportion of revenues in the form of social contributions on average. Developing countries unsurprisingly rely to a much greater extent on "other revenues" – mostly income from natural resources. The poorest countries tend to rely most on such other revenues: almost half of government revenues in LDCs and in the African region as a whole. There is a clear pattern of shifting revenues from (corporate) income taxation to other revenues related to natural resource endowment. In Africa, at a given level of revenue collection (at 30% of GDP), resource-driven countries (commodity exports higher than 75% of total exports) exhibit a revenue distribution heavily skewed toward other revenues (at around 65% of total revenues), while income taxes account for only 25%; by contrast, the group of non-resource-driven countries shows income taxes at 70% of total revenues and other revenues at slightly more than 30%. Resource-rich lower-income countries may be making a trade-off in tax collection from corporates between royalties (and export revenues) on the one hand, and corporate income taxes on the other.

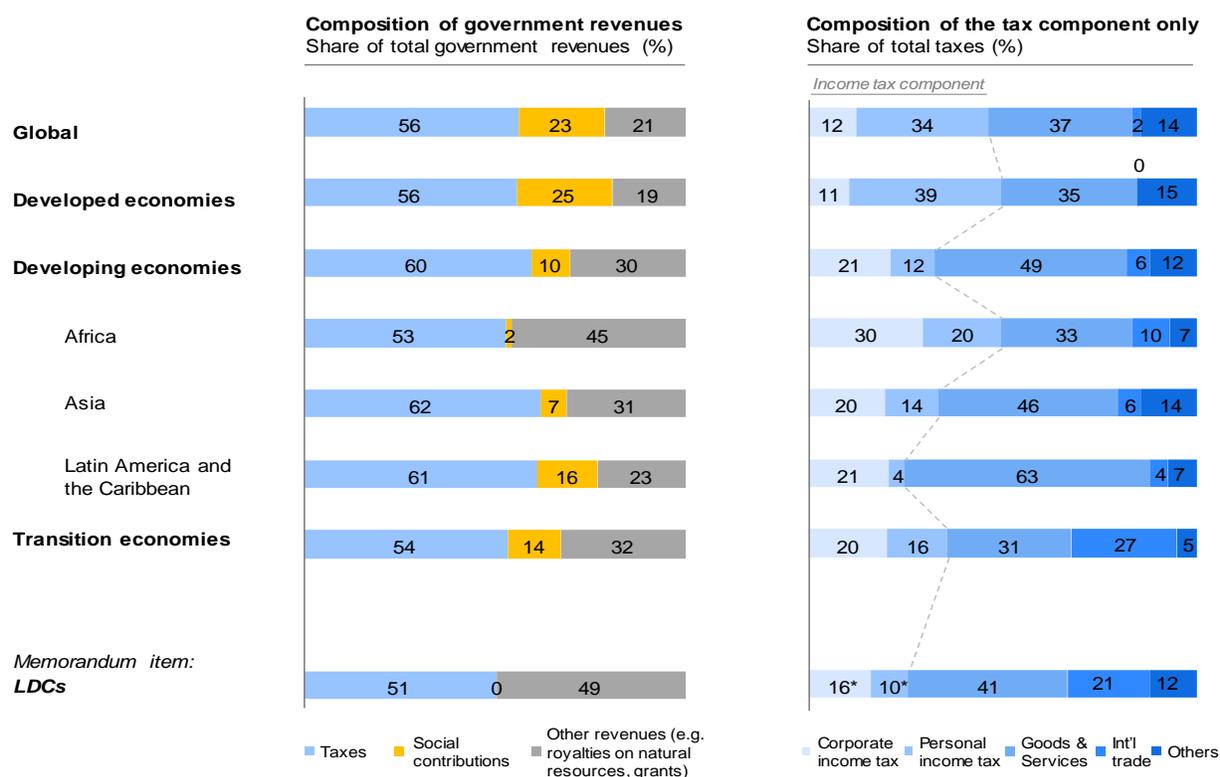
¹ For a discussion on the relevance of the composition of taxes for development, see UNCTAD (2014b).

ii. Breaking down the revenue category of taxes one level further (right-hand chart in Figure 3) shows that developed countries rely more heavily on income taxes (50% of taxes) than developing countries (one-third of taxes). Other tax components are far more important in developing countries, especially indirect taxes on goods and services (VAT) at nearly half of total taxes.

It is worth noting that taxes on international trade transactions constitute a sizable component (one-fifth) of tax revenues in LDCs, which may be important in the context of trade liberalization processes at regional or multilateral levels.

iii. Corporate income taxes are relatively more important for government revenues in developing countries compared to developed countries. Corporate income taxes, at around 20% of total taxes, are nearly twice as important in developing countries. However, as a share of total government revenues the difference becomes much smaller. More importantly, the difference is driven not so much by the increase of the share of corporate income taxes but rather by the collapse in the share of personal income taxes. In developing countries, corporate taxes yield two-thirds of all income taxes, compared with only one quarter in developed countries. Accordingly, as a share of GDP, corporate income tax in developing economies amounts to around 4% of GDP against 2% in developed economies; by contrast, the share of personal income tax in developing economies falls to 2% of GDP against 8% in developed economies.

Figure 3. Composition of government revenues, by region

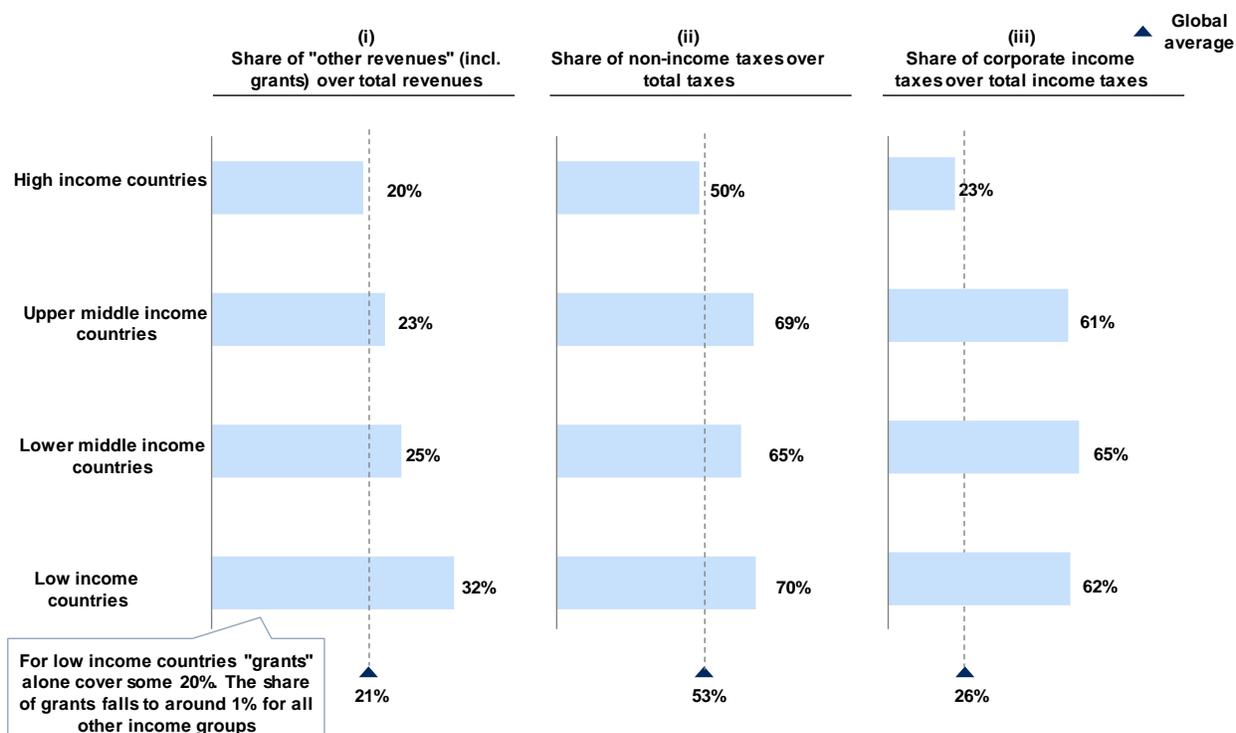


Source: UNCTAD analysis, based on the ICTD Government Revenue Dataset.

Note: The classification is generally based on the standard IMF GFS classification. However in the left-hand graph the category "other revenues" includes grants (these are very small, at 1.5% of total government revenues in developing economies). In the right-hand graph, the residual category "others" includes taxes on payroll and workforce, taxes on property and other taxes. Data with (*) subject to very limited coverage. Full details on data sources and methods provided in Annex I.

The main patterns (i), (ii), and (iii) resulting from the regional comparison are fully confirmed (and possibly strengthened) when adopting an income-driven perspective (Figure 4).

Figure 4. Key patterns in the composition of government revenues related to income levels

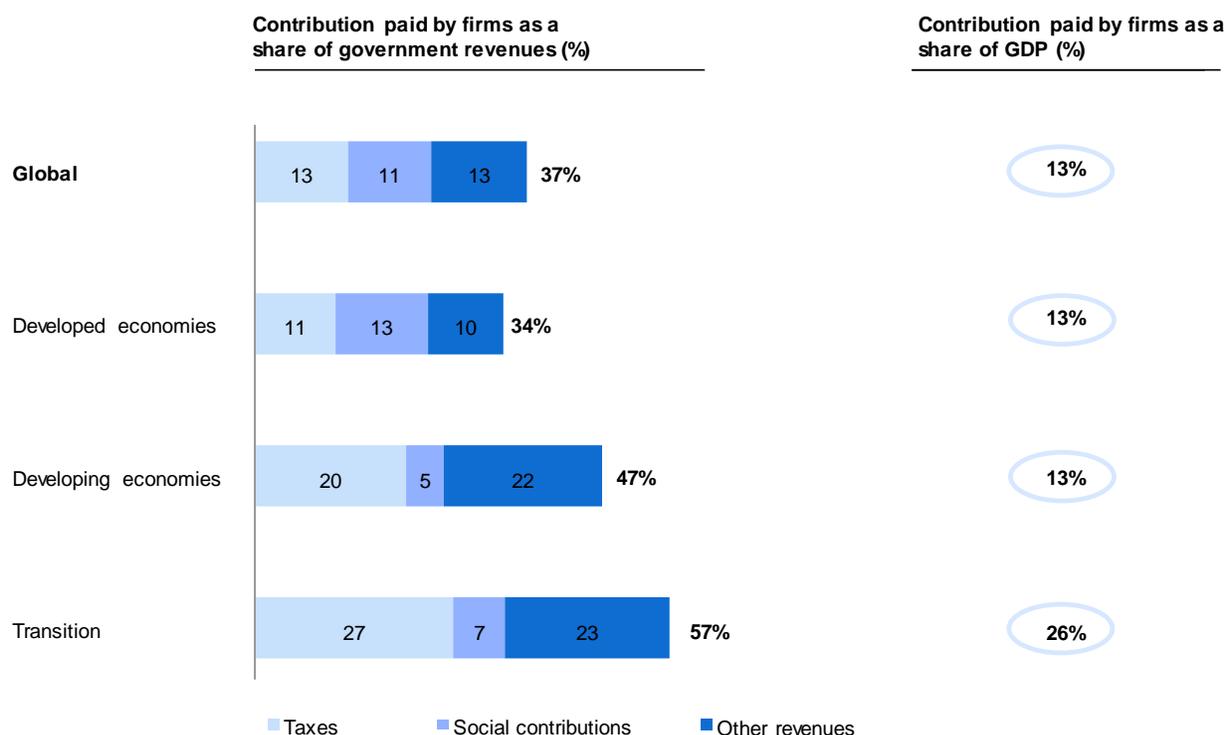


Source: UNCTAD analysis, based on the ICTD Government Revenue Dataset.

Note: Full details on data sources and methods provided in Annex I.

It appears that in order to assess the relative collection capabilities of economies in different regions the revenue category of social contributions and the tax categories of personal income tax and indirect taxes represent the most useful proxy indicators. Although social contributions and personal income taxes are clearly linked to overall income levels and can thus be expected to amount to less in low-income countries, these categories also require the more sophisticated institutional structures and collection capabilities. In contrast, indirect taxes are easier to collect. Lower shares of social contributions and personal income taxes and higher shares of indirect taxes seem to be associated with lower collection capabilities and a greater reliance on corporate income taxes.

Interestingly, corporates are instrumental in collecting all three of these categories. While they do not actually pay personal income taxes and indirect taxes out of their own pocket in theory (leaving aside specific fiscal issues such as non-recoverable VAT) they collect these taxes on behalf of government through their payroll and from their customers. This role, not explicitly quantified in the assessment of corporate contributions, represents a significant additional element of fiscal value added, of crucial importance in developing countries with large informal economies.

Figure 5. Contribution to government revenues by firms (domestic and foreign)

Source: UNCTAD analysis, based on the ICTD Government Revenue Dataset; IMF GFS database as complementary source.

Note: Full details on data sources and methods provided in Annex I.

Looking specifically at the (paid) contribution of corporates (domestic and foreign firms) across all three categories of government revenues – taxes, social contributions and other revenues – confirms the significantly higher relative contribution in developing countries (almost half of government revenues) compared to developed countries (one-third) (Figure 5). The difference is caused, as noted before, by higher revenues from corporate taxes (income taxes as well as taxes on international trade and other levies) and from relatively higher corporate contributions to other revenues, especially from natural resources and property. Relative to the size the economies, the corporate contribution to government revenues is practically the same across developed and developing economies at 13% of GDP. The higher relative contribution of firms to government revenues in transition economies is due to relatively high income from natural resources, and to the role of state-owned enterprises in the economy.

To sum up, government revenue collection capabilities are largely a function of levels of income and development. At lower levels of development corporate contributions to overall revenues and to income taxes are more important due to low levels of collection on other revenue and tax categories. In addition to taxes paid by corporates, a significant amount of other taxes (especially indirect taxes) depend on collection by corporates. Overall, developing countries rely more on corporates for government revenue collection; as a share of the total economy fiscal contributions by corporates are at similar levels in developed and developing countries.

B. The contribution of MNEs to government revenues

MNEs are important tax contributors worldwide, and in developing countries in particular. UNCTAD estimates the contribution of foreign affiliates to government budgets in developing countries at around \$730 billion annually. This represents, on average, around 23% of corporate payments and 10% of total government revenues. (In developed countries these shares are roughly 15% and 5%, respectively.) African countries show the highest relative contribution of foreign affiliates at more than a quarter of corporate contributions and at 14% of total government revenues. Contributions through royalties on natural resources, tariffs, payroll taxes and social contributions, and other types of taxes and levies are on average twice as important as corporate income taxes.

The previous section looked at the level and composition of overall government revenues and at the contribution by corporates (domestic and foreign firms). This section zooms in on foreign affiliates² specifically. In order to do so, two new approaches to estimating MNE fiscal contributions have been developed for this working paper:

1. *Contribution Method.* This approach is based on the economic contribution of foreign affiliates to host economies. It estimates the share of economic activity generated by foreign affiliates (profits, employment, value added, exports) and applies it to relevant components of the corporate contribution.
2. *FDI-Income Method.* This approach is based on country-by-country Balance of Payments data on FDI income. For the main developing regions it estimates the corporate income taxes paid by foreign affiliates by applying a suitable average effective income tax rate to FDI income. It then calculates the non-income tax components based on the estimated weight of income tax in the total contribution paid by the average corporation operating in the region.

The two approaches should not necessarily lead to the same result. In fact, the FDI income method should in theory yield a lower-bound estimate, given that it can only take into account the income on the foreign-owned part of direct invested enterprises, rather than the full income of foreign affiliates (although the difference should not be large). Nevertheless, the estimates are consistent, putting the total contribution of MNE foreign affiliates to developing-country government revenues at around \$730 billion annually. Apart from serving as a cross-check, the two independent approaches allow for different perspectives and provide different insights, discussed below. Comprehensive details on data and statistical methods are contained in technical Annex I.

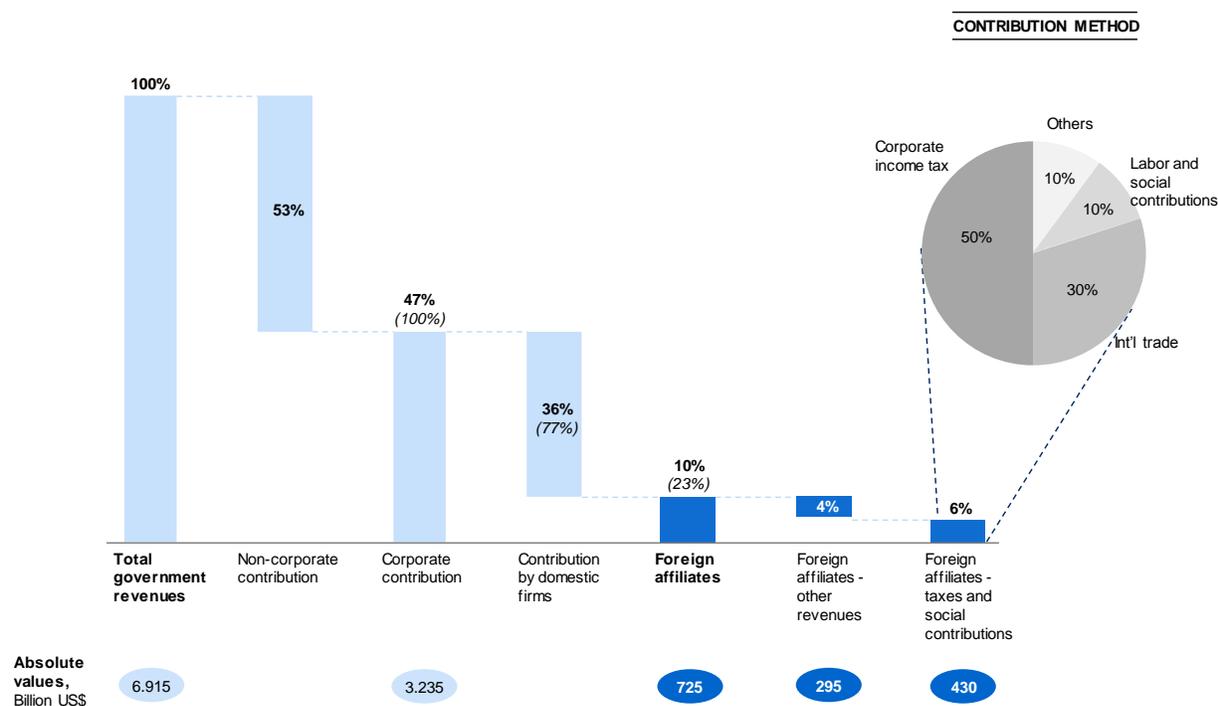
Based on the contribution method, [Figure 6](#) provides the relevant orders of magnitude and shares for developing economies from total government revenues to the total contribution of foreign affiliates and the breakdown across the main contribution items. Out of total government revenues of \$6.9 trillion (27% of 2012 GDP, see [Figure 1](#)), 47% is paid by the corporate sector (see [Figure 5](#)), corresponding to some \$3.2 trillion. The share of the corporate contribution pertinent to foreign affiliates is around one quarter (23%), corresponding to \$725 billion or 10% of total government revenues. This contribution includes 60% (\$430 billion) of taxes and social contribution and 40% (\$295 billion) of other revenues. The bulk of this represents royalties on natural resources.

Within taxes, the sub-categories show a slightly different pattern than for corporates as a whole (including domestic firms). While the corporate income tax component is similar, at half of total taxes and social contributions, the share of taxes on international trade transactions is relatively high for foreign affiliates, at 20%, due to the large share of exports accounted for by foreign affiliates in many developing countries (see *WIR13*). In contrast, the share of payroll taxes and social contributions paid by foreign affiliates is relatively low compared to domestic firms due to the more capital intensive nature of many of their

² The term foreign affiliates covers direct investment enterprises outside the home country of the investor in which the investor owns at least 10% of voting power. It includes both branches and subsidiaries.

operations. Clearly this is an aggregate developing-country picture, with large variations for individual countries and regions, explored below.

Figure 6. Government revenues contributed by foreign affiliates of MNEs
Share of government revenues, developing countries, reference year 2012



Sources: UNCTAD estimates, based on the ICTD Government Revenue Dataset; IMF GFS database; United Nation System of National Accounts; Eurostat; U.S. Bureau of Economic Analysis; ILO; literature review.

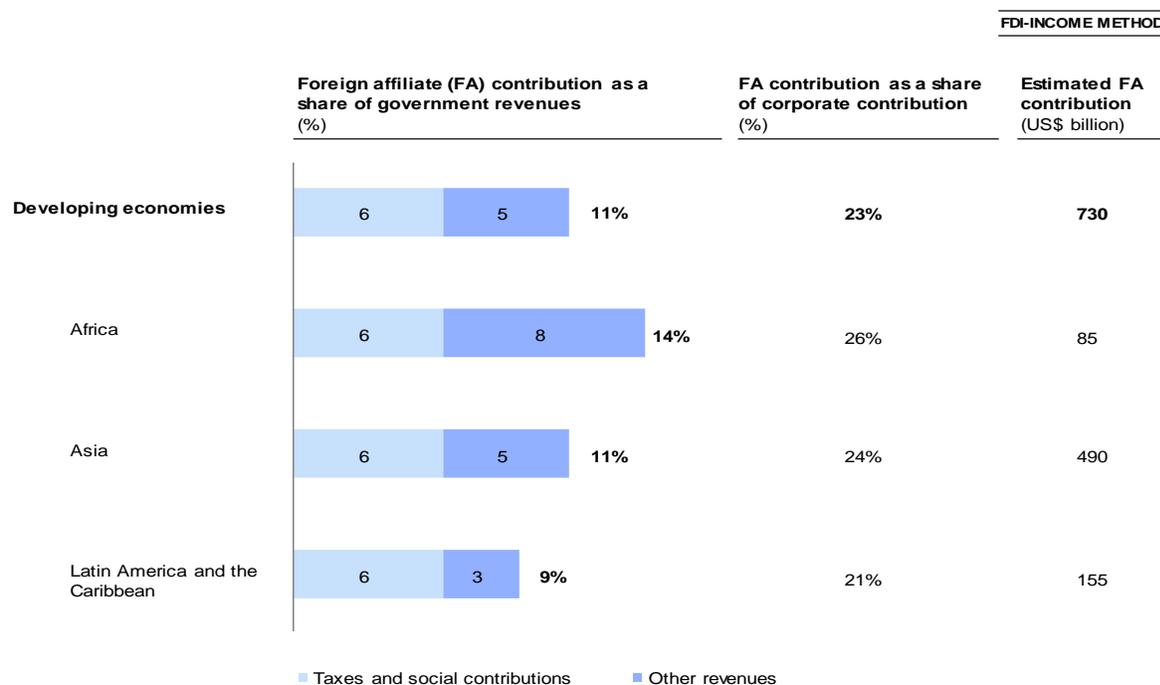
Note: Details on data and methods contained in Annex I.

As discussed in the previous section, in addition to taxes *paid* by foreign affiliates, which include not only corporate income taxes but also payroll taxes and social contributions, taxes on international transactions, and a host of other taxes, levies and fees, MNEs contribute to government revenues by *collecting* income taxes from employees, as well as indirect taxes. These taxes are not borne by the MNE; they represent only a compliance cost. In economies with large informal sectors or with relatively limited collection capabilities in the tax authorities, this role can be very important. The collection of taxes on goods and services (e.g. VAT) is especially relevant, as it represents the largest component of developing countries' total tax revenues (at around 50%). As a consequence, also tax collection contributions by MNEs are relevant, covering another 6%-plus of government revenues.

Leveraging the FDI-income method to look at the pattern by region (Figure 7) the average 10% foreign affiliate contribution to government revenues becomes 14% in Africa, and 9% in Latin America and the Caribbean (down to 5%-7% in South America, compensated by higher shares in the Caribbean), with developing Asia representing the average as well as the bulk of overall absolute contributions. The regional variation reflects in part the relative importance of foreign affiliates in the economy of each region, and in part the foreign affiliate contribution to other revenues – royalties on natural resources. The relative shares of tax and social contributions seem comparable across regions, although considering South America separately the relative share of other revenues (resource-related) increases. Summing

foreign affiliates fiscal contributions across regions leads to global contribution of \$730 billion, in line with the value reported in [Figure 6](#) through the contribution method.

Figure 7. MNE revenue contributions by region



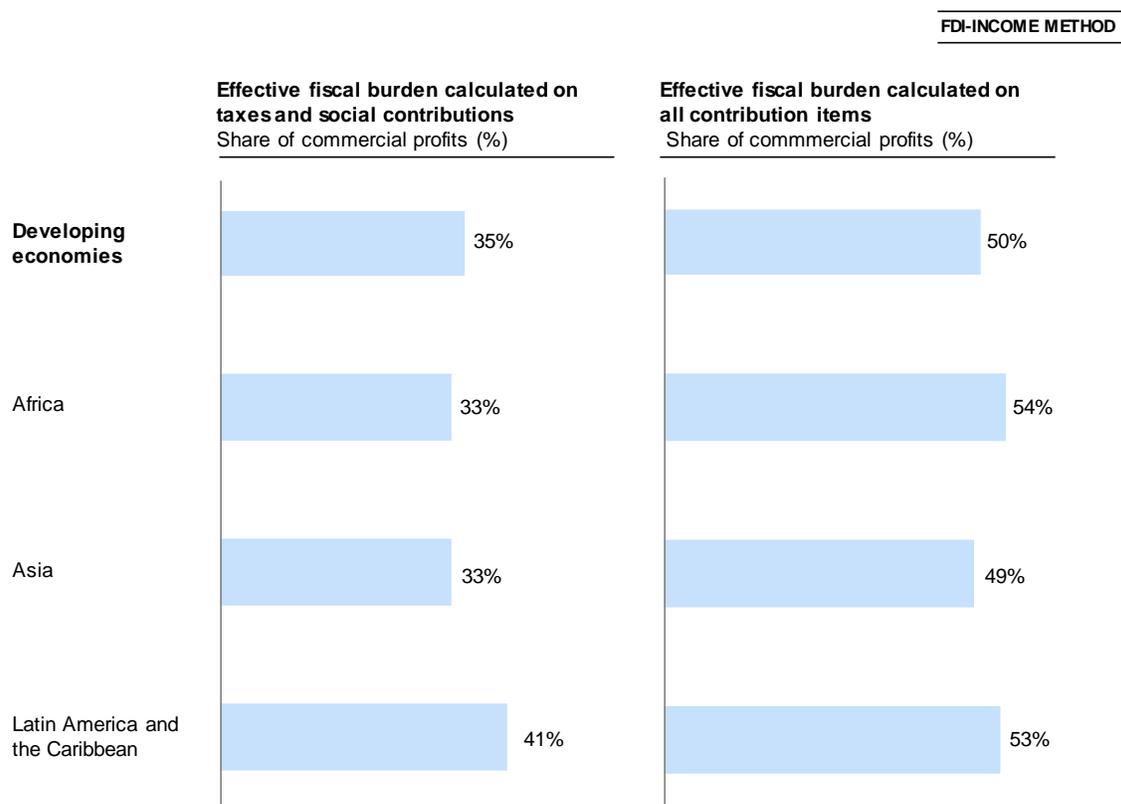
Sources: UNCTAD estimates, based on the ICTD Government Revenue Dataset; IMF GFS database; IMF BOP data.

Note: Details on data and methods contained in Annex I.

The methodology developed in this working paper not only provides inputs relevant to the international discussion on MNE taxation and development, especially through the establishment of a baseline for the actual value at stake, but *from the business perspective* it also provides an indication of the *fiscal burden* for the average foreign affiliate. Adopting an approach similar to World Bank's "Paying Taxes" initiative, the fiscal burden for foreign affiliates is measured as the ratio between the fiscal contribution and an adjusted measure of profits ("commercial profits" in the "Paying Taxes" terminology), gross of all relevant contribution items (including above-the-line contribution items).

The resulting fiscal burden on MNE foreign affiliates – taking into account taxes and social contributions only – represents approximately 35% of commercial profits ([Figure 8](#)). The inclusion of "other revenues" (both in the numerator and the denominator of the ratio) significantly increases the estimate of the fiscal burden compared to the more standard approach considering only taxes and social contributions. The total contribution to government revenues represents around 50% of foreign affiliate commercial profits, with minor variations by region.

Comparison with the same calculation for developed economies reveals that the fiscal burden based only on taxes and social contributions is lower in developing economies (35% of commercial profits against 56% in developed economies); however including other revenues in the equation leads to a convergence of the ratios (51% in developing economies against 65% in developed economies).

Figure 8. The fiscal burden on MNE foreign affiliates

Sources: UNCTAD estimates, based on the ICTD Government Revenue Dataset; IMF GFS database; IMF BOP data.
Note: Details on data and methods contained in Annex I.

II. AN INVESTMENT PERSPECTIVE ON INTERNATIONAL TAXATION

MNEs build their corporate structures through cross-border investment. They will construct those corporate structures in the most tax-efficient manner possible, within the constraints of their business and operational needs. The size and direction of foreign direct investment (FDI) flows are thus often influenced by MNE tax considerations, because the structure and modality of initial investments enable tax avoidance opportunities on subsequent investment income. The attention of policymakers in tackling tax avoidance, most notably in the BEPS approach, focuses naturally on tax rules, company law, and transparency principles – i.e. on accounting for income. The fundamental role of investment as the enabler of tax avoidance warrants a complementary perspective.

This chapter aims to provide a new perspective on corporate international taxation and MNE tax avoidance schemes. It integrates the mainstream BEPS approach with an investment-based approach emphasizing the relevance of corporate structures set up by channeling FDI through "offshore investment hubs" and offshore financial centers (OFCs), notably *Tax Havens* and jurisdictions offering so-called *Special Purpose Entities (SPEs)*,³ as these are the *enablers* of most BEPS schemes.⁴ In essence, corporate structures built through FDI can be considered "*the engine*" and profit shifting "*the fuel*" of MNE tax avoidance schemes.

In order to analyze the scope, dimensions and effects of tax-efficient corporate structures ("*fuel-efficient engines*") the chapter looks at FDI flowing through OFCs or conduit jurisdictions (transit FDI). It is important to emphasize from the outset that the notion of transit FDI does not equate with non-productive FDI. FDI designed as part of tax planning strategies of MNEs may or may not have a real economic impact on the countries involved. For example, an investment from a North American firm in Asia to start a new production plant may be channeled through Europe for tax reasons (potentially penalizing tax revenues in both home and host countries) but still carry the productive-asset-creating effects of a greenfield investment. On the other hand, transit FDI will tend to have very little real economic impact in countries acting as investment hubs in MNE tax planning schemes.

For the purpose of the analysis in this working paper, a simple (and conservative) approach has been taken to identifying offshore investment hubs, limiting the scope to *Tax Havens* and a few jurisdictions that (at the time of analysis for this paper) explicitly publish directional SPE investment data.⁵ Other countries host SPEs and various types of entities that facilitate transit investments. Alternative approaches and perimeters for offshore investment hubs, combining generally accepted tax-based criteria with criteria based on objective FDI data are discussed in the technical Annex II to this paper.

³ According to the IMF "*SPEs are autonomous legal entities, directly or indirectly wholly foreign owned, that are part of a group company, without substantial real economic links with the host economy, engaged in a variety of cross-border financial activities, which are aimed at the passing through of all types of financial and non-financial assets, liabilities and related income to third countries*".

⁴ This working paper groups *Tax Havens* and jurisdictions that offer SPEs where useful to explain the conduit nature of investment structures located there. The definition *Tax Haven* refers to small jurisdictions with economies almost entirely dedicated to offshore financial activities; typical examples are the British Virgin Islands or the Cayman Islands. In contrast jurisdictions offering SPEs often have substantial real economic activity, but they also act as financial centres for MNEs due to favourable tax conditions and other benefits for investors. The terminology is consistent with the *World Investment Report 2013* (Chapter 1, Section A.1.d).

⁵ These include Austria, Hungary, Luxembourg and the Netherlands, with the latter two accounting for the bulk of transit flows discussed here. The number of jurisdictions publishing SPE investment data is currently increasing rapidly as more countries are aligning to the OECD *Benchmark Definition* (edition 4th) and IMF *Balance of Payments and International Investment Position Manual* (edition 6th). The countries used here have a long record of publishing SPE data and (especially through the Netherlands and Luxembourg) account for the bulk of global SPE flows.

It should be noted that the conduit countries discussed in this working paper are not alone in offering certain tax benefits to foreign investors; a degree of tax competition has led many other countries to adopt similar policies. *No policy implications are implied by the scope of the perimeter for offshore investment hubs used in this working paper.* In fact, the analysis will show that any action on tax avoidance practices needs to address policies across all jurisdictions – in base (home) countries, conduit (transit) countries, and source (host) countries alike.

A. The importance of offshore investment hubs and transit FDI

Offshore investment hubs play a major role in global investment. Some 30% of cross-border corporate investment stocks (FDI, plus investments through Special Purpose Entities) have been routed through conduit countries before reaching their destination as productive assets. The growth of transit investment saw a sharp acceleration during the second half of the 2000s.

In 2012 British Virgin Islands was the fifth largest FDI recipient globally with inflows at \$65 billion, higher than the UK (\$62 billion), which has an economy almost 3'000 times larger. Similarly, outflows from BVI at \$42 billion were disproportionately high compared to the size of the economy. The British Virgin Islands are only one example of a country with such unusual FDI behavior. Countries like the Netherlands and Luxembourg, very different from BVI, also exhibit amplified investment patterns.⁶ Despite their heterogeneity all these countries act as *offshore investment hubs* for MNEs. Many of these hubs display some degree of the following characteristics: (i) No or low taxes; (ii) Lack of effective exchange of information; (iii) Lack of transparency; (iv) No requirement of substantial activity.⁷

The investment analysis in this working paper, which provides a comprehensive map of corporate investment to and from offshore hubs, covers a set of 42 hubs differentiated in two groups:

- *Tax Havens.* Small jurisdictions whose economy is entirely, or almost entirely, dedicated to the provision of offshore financial services.
- *Jurisdictions offering SPEs or other entities facilitating transit investment.* Larger jurisdictions with substantial real economic activity that act as major global investment hubs for MNEs due to favorable tax and investment conditions.

In the absence of any universally agreed approach to classifying offshore investments and investment hub activity, this paper has opted for a narrow and conservative perimeter of analysis based on a list of Tax Havens originally proposed by the OECD⁸ and a limited set of SPE jurisdictions, which are those that

⁶ Note that for the Netherlands and Luxembourg such amplified FDI patterns do not affect official FDI statistics. For these countries UNCTAD removes flows to/from Special Purpose Entities from reported inflows/outflows. This treatment of the data allows segregating the *transit* component.

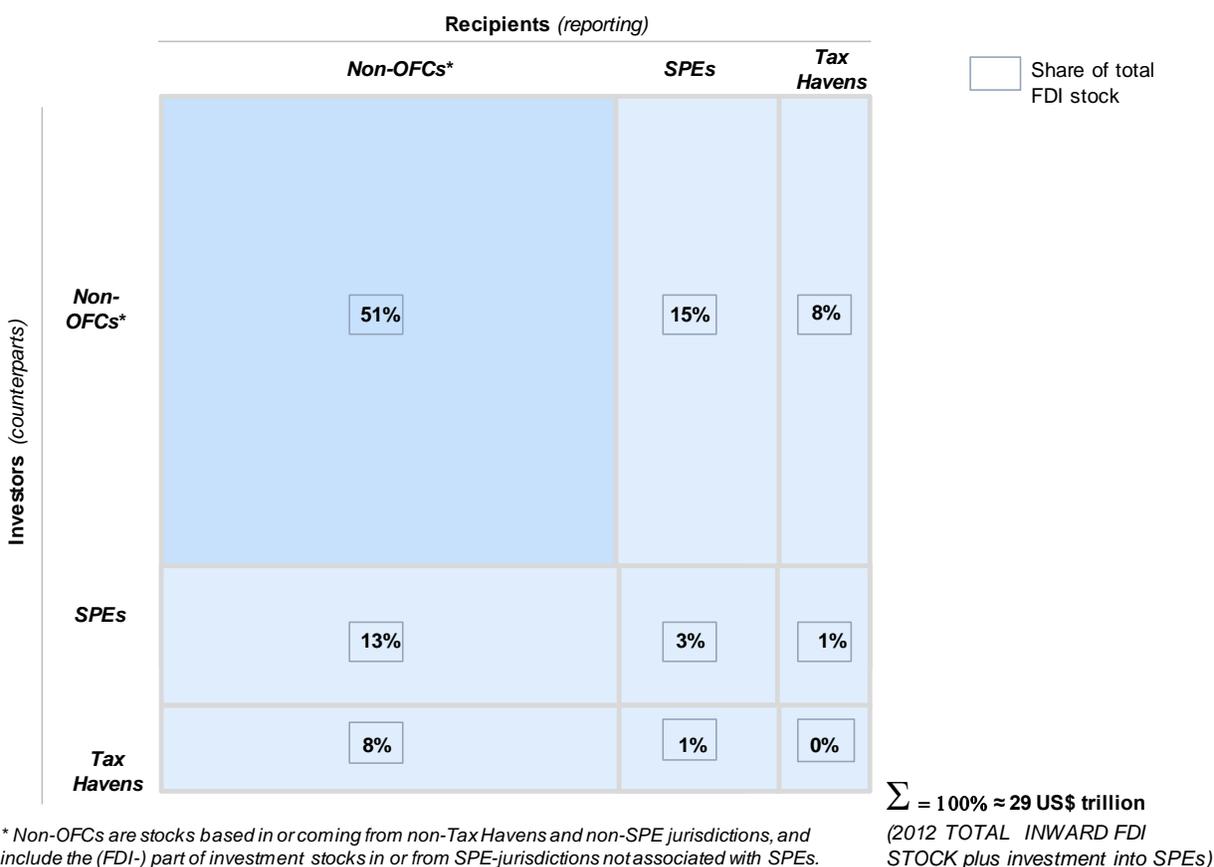
⁷ This characterization was first introduced by OECD (1998), p.23.

⁸ This list of 38 jurisdictions is a review of the original OECD list (2000) of 41 jurisdictions meeting the four criteria (i)-(iv) to qualify as *Tax Havens*. Jurisdictions included are: Anguilla, Antigua and Barbuda, Aruba, Bahamas, Bahrain, Belize, Bermuda, British Virgin Islands, Cayman Islands, Cook Islands, Cyprus, Dominica, Gibraltar, Grenada, Guernsey, Isle of Man, Jersey, Liberia, Liechtenstein, Malta, Marshall Islands, Mauritius, Monaco, Montserrat, Nauru, Netherlands Antilles, Niue, Panama, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Samoa, San Marino, Seychelles, Turks and Caicos Islands, US Virgin Islands, Vanuatu. The OECD has increasingly focused on transparency standards and information exchange. The 38-list is still published on the OECD website as "*Jurisdictions Committed to Improving Transparency and Establishing Effective Exchange of Information in Tax Matters*". This list has also been referred to by other studies, including Tax Justice Network (2007), U.S. Government Accountability Office (2008), Gravelle JG (2013). Notice that the 38-list employed in this working paper is slightly different from the list (of 35 *Tax Havens*) used in *WIR13* (p.36, Note 4) based on a more

have a long-standing record of published SPE data, with the Netherlands and Luxembourg accounting for the lion's share. Technical Annex II provides alternative options and results.

The "Offshore Investment Matrix" (Figure 9) provides a comprehensive mapping of corporate international investments through offshore investment hubs. For each "unit" of MNE international investment stock, bilateral data provide a pairing of direct investor and recipient jurisdictions, which are grouped under "Non-OFCs", "SPEs" or "Tax Havens". When the investor/recipient is a jurisdiction offering SPEs only part of the outward/inward investment is allocated to transit investment activity (the *SPE component*) while the remaining part is allocated to the *Non-OFC* group. Full methodological details on the construction of the *Offshore Investment Matrix* are provided in technical Annex II.

Figure 9. Bilateral investment stocks by type of investor and recipient, share over total, 2012
(Offshore Investment Matrix)



Source: IMF CDIS 2012 and 2011, national statistics, UNCTAD estimates.

Note: Full details on the methodology provided in technical Annex II.

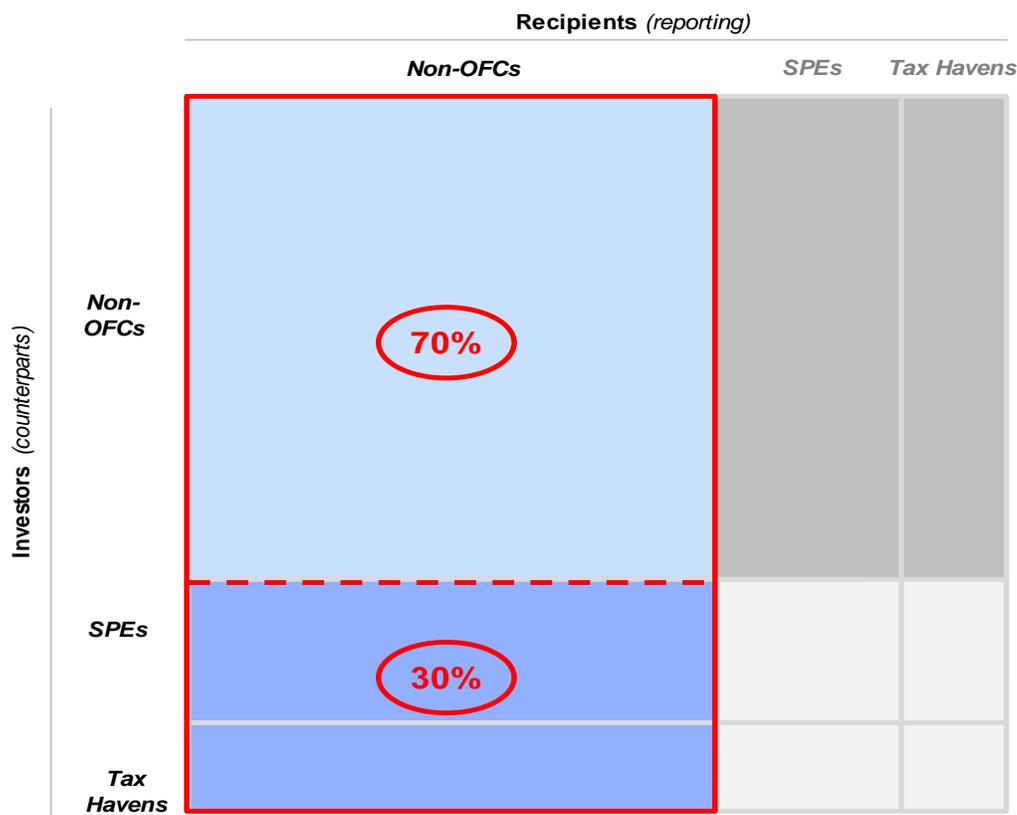
The matrix shows the pervasive role of offshore investment hubs in the international investment structures of MNEs, already envisaged in *WIR13* and hinted at also by other studies.⁹ In 2012, out of an estimated

restricted set of countries published in OECD (2000) excluding some *advance commitment jurisdictions* even if they met the tax haven criteria.

⁹ UNCTAD's *World Investment Report 2013 (WIR13)* estimates the total amount of inflows to OFCs and conduits in 2011 at over \$700 billion, consisting of \$600 billion of inflows to the SPEs in three jurisdictions Hungary,

\$21 trillion¹⁰ of international corporate investment stock in *Non-OFC* recipient countries (blue area in Figure 10), more than 30% or some \$6.5 trillion was channeled through offshore hubs (dark blue area). The contribution of SPEs to investments from conduit locations is far more relevant than the contribution of Tax Havens. The largest offshore investment players are SPE jurisdictions.

Figure 10. Non-OFC investment stocks by type of investor (origin)
Vertical view of the Offshore Investment Matrix



Source: IMF CDIS 2012 and 2011, national statistics, UNCTAD estimates.

Note: Full details on the methodology provided in technical Annex II.

A mirror analysis of the inward investment into offshore hubs (dark grey area) reveals that 28% of the total amount of cross-border corporate investment stock is invested into intermediary entities based in hubs. In some cases these entities may undertake some economic activity on behalf of related companies in higher tax jurisdictions, such as management services, asset administration or financial services (*base companies*). However often they are equivalent to letterbox companies, legal constructions conceived for tax optimization purposes (*conduit companies*) and potentially to benefit from other advantages

Luxembourg and the Netherlands and \$90 billion of inflows to Tax Havens. Of the estimated \$700 billion only the inflows to Tax Havens are included in the reported FDI statistics (at \$1,650 billion in 2011). In the same Report the positioning of British Virgin Islands as the fifth largest global FDI recipient clearly stands out. Other studies looking at the phenomenon of *offshore FDI* include Christian Aid (2013) and ActionAid (2013).

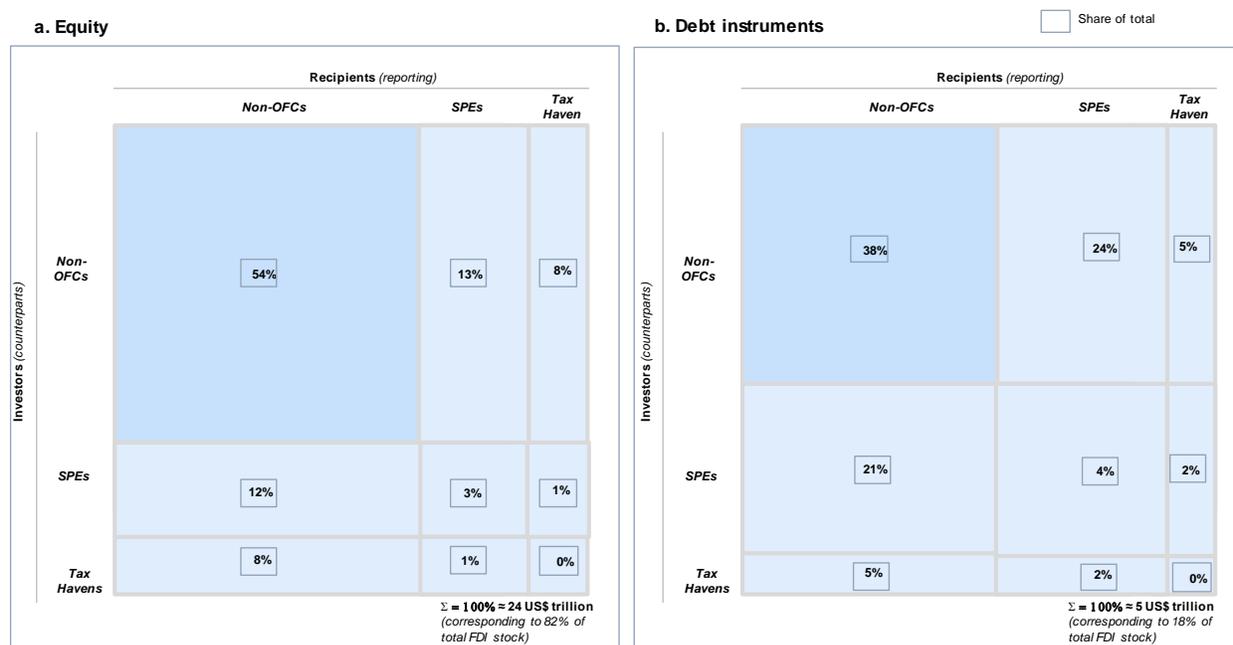
¹⁰ The baseline for the calculation of the absolute values (given the shares provided by the *Offshore Investment Matrix*) is \$29 trillion resulting from the sum of the total inward stock reported by UNCTAD (2013) (23\$ trillion) and the (unreported) SPE component (\$6 trillion).

associated with intermediate legal entities. The prominent "*pass through*" role of these entities in financing MNE operations causes a degree of *double-counting* in global corporate investment figures, represented by the dark grey area in the *Offshore Investment Matrix* (inward investments into offshore hubs) which broadly mirrors the dark blue area (outward investments from hubs).¹¹ In UNCTAD FDI statistics this double-counting effect is largely removed by subtracting the SPE component from reported FDI data.

The share of stock *between* hubs (light grey area) is also relevant, at 5% of global investment stock. This confirms that offshore investment hubs tend to be highly inter-connected within complex multilayered tax avoidance schemes. The "*Double Irish-Dutch Sandwich*" employed by Google and other IT multinationals is a relevant example of such structures.

An analysis of the *Offshore Investment Matrix* by the two investment components, *Equity* and *Debt*, reveals additional dynamics. The picture for the debt component (Figure 11.b) show a significantly larger role for hubs (and especially SPEs) compared to the general pattern. This captures a typical tax avoidance mechanism whereby an SPE channels funds through intra-company loans to third-country affiliates. The basic rationale of this practice is to generate an erosion of the tax base in the recipient (high tax) jurisdiction, with profit shifted to low tax locations in the form of deductible interest payments.¹²

Figure 11. The *Offshore Investment Matrix* by investment component, 2012



Source: IMF CDIS 2012 and 2011, national statistics, UNCTAD estimates.

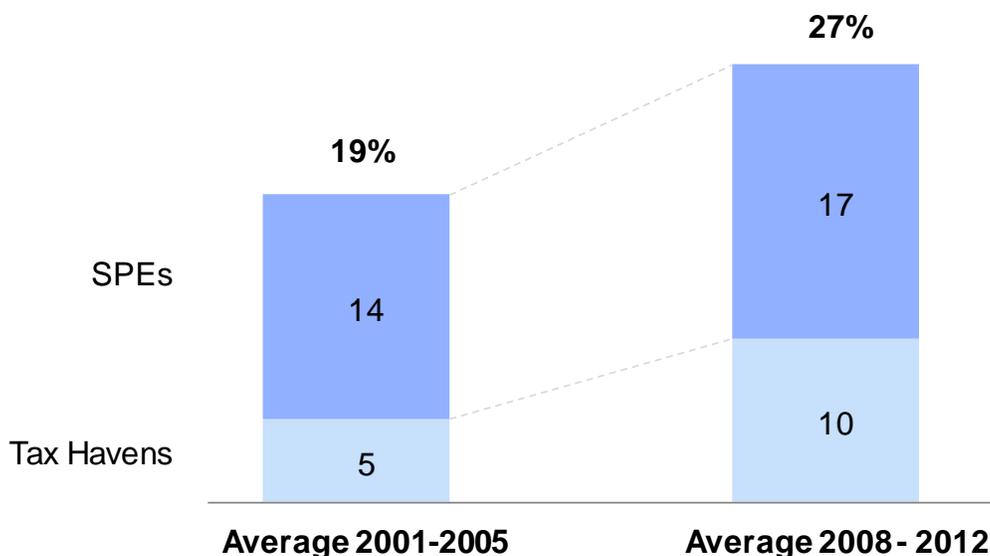
Note: The equity component represents the bulk of total reported investment stocks (at around 80% of total stocks). The methodology follows directly from the general case illustrated in Figure 9 and explained in technical Annex II.

¹¹ Also Tax Havens display inward/outward symmetry; however, in the derivation of the *Offshore Investment Matrix* symmetry in the case of Tax Havens applies by construction (see Annex II).

¹² There may be reasons other than base erosion for injecting debt funding as opposed to equity. In some cases, ease of repatriation can be an additional motivation. There are generally non or minimal restrictions on the repatriation of the principal amount of debt injected, whereas in some jurisdictions difficulties may arise with respect to repatriation of equity capital.

The scenario represented in Figures 9 through 11 is the result of a boom in the use of offshore structures in cross-border corporate investment. Between the start and end of the 2000s, the average share of investment flows to/from non-OFC countries routed through offshore hubs ("Offshore investment share") increased from 19 to 27% (Figure 12). More recently, increasing international efforts to tackle tax avoidance practices have managed to reduce the share of offshore investments in developed countries, but exposure of developing economies is still on the rise (see also chapter III).

Figure 12. Trend in the share of investment inflows from offshore hubs, 2000-2012



Source: UNCTAD FDI database, national statistics, UNCTAD estimates.

Note: Elaboration of UNCTAD bilateral flow statistics. The target sample of (recipient) reporting countries includes all countries reporting bilateral investments flows with the exclusion of offshore hub countries (Tax Havens and the selected countries reporting SPEs). This approach allows describing the trend in the penetration of offshore investments in "real" economies while removing the (distorting) effects of investments between hubs. In the context of flow analysis, averaging across multiple years is helpful to mitigate the volatility of the offshore component and capture the underlying trend. For the countries reporting SPEs, the share of SPEs in total outflows is derived from central bank data.

B. The root-causes of the outsized role of offshore hubs in global investments

The root-cause of the outsized role of offshore hubs in global corporate investments is tax planning, although other factors can play a supporting role. MNEs employ a wide range of tax avoidance levers, enabled by tax rate differentials between jurisdictions, legislative mismatches and gaps, and tax treaties. MNE tax planning involves complex multilayered corporate structures. From an investment perspective, two archetypal categories stand out: (i) intangibles-based transfer pricing schemes and (ii) financing schemes. Both schemes, which are representative of a relevant part of tax avoidance practices, make use of investment structures involving entities in offshore investment hubs.

The investment data and the results of the analyses depicted in the previous section highlight a massive and still growing use of offshore investment hubs by MNEs. Offshore investment structures are an integral part of MNE tax planning strategies aimed at shifting profits from high tax to low tax jurisdictions in order to reduce corporate tax bills. What makes them attractive for tax optimization purposes is usually a mix of features (see also technical Annex III). Corporate tax is often reduced to

minimal levels through preferential regimes. Some of these jurisdictions offer the option to negotiate tax rates or obtain favorable tax rulings from tax authorities. In addition, they may offer special vehicles (special types of entities such as holding structures, foundations, cooperatives, etc.), which result in both tax and operational advantages. Offshore hubs are usually effective in circumventing withholding taxes. For instance, most SPE jurisdictions do not apply withholding taxes on outflows and ensure that withholding tax on inflows is limited through the application of tax treaties. SPE jurisdictions tend to have extensive treaty networks, making them ideal intermediary or regional headquarter locations.

An objective discussion on the root-causes of the role of offshore investment hubs, and in particular SPE jurisdictions, in international investment should take into account other factors. Some jurisdictions count on extensive networks of investment treaties providing investor protection and access to international arbitration. In addition, offshore hubs tend to require relatively few formalities for the set-up of investment vehicles and offer attractive business climates. Countries providing homes to SPEs generally have strong legal and regulatory frameworks, good in-country infrastructure, sophisticated banking environments and are stable from an economic and political perspective. They also offer other advantages like a skilled labor force and established business services industry. Geographical location and language are other important factors. However, the relative importance of non-tax factors in making SPE jurisdictions successful investment hubs should not be overestimated. For example, only a small part (less than 15%) of investment channeled through SPEs in the Netherlands goes to countries with a bilateral investment protection treaty in place.

There is significant anecdotal evidence of the occurrence of profit shifting through offshore investment hubs. Google achieved an effective tax rate of 2.4% on its non-US profits in 2009 by routing profits to Bermuda (a Tax Haven), with Ireland and the Netherlands (SPE jurisdictions) playing a key role in the structure. Many examples of multinational corporations that achieved similar results or utilized similar structures have appeared in the media in recent years and will be familiar to the public.

A more systematic, not anecdotal, assessment of BEPS practices at the *firm level* is difficult. MNEs have very limited incentives to disclose tax-relevant information, especially on their cross-border operations. [Figure 13](#) shows some basic firm-level evidence confirming the special role of offshore hubs in MNEs investment structures based on United States data. [Box 1](#), at the end of this section, outlines promising directions of future research using firm-level data at the subsidiary level.

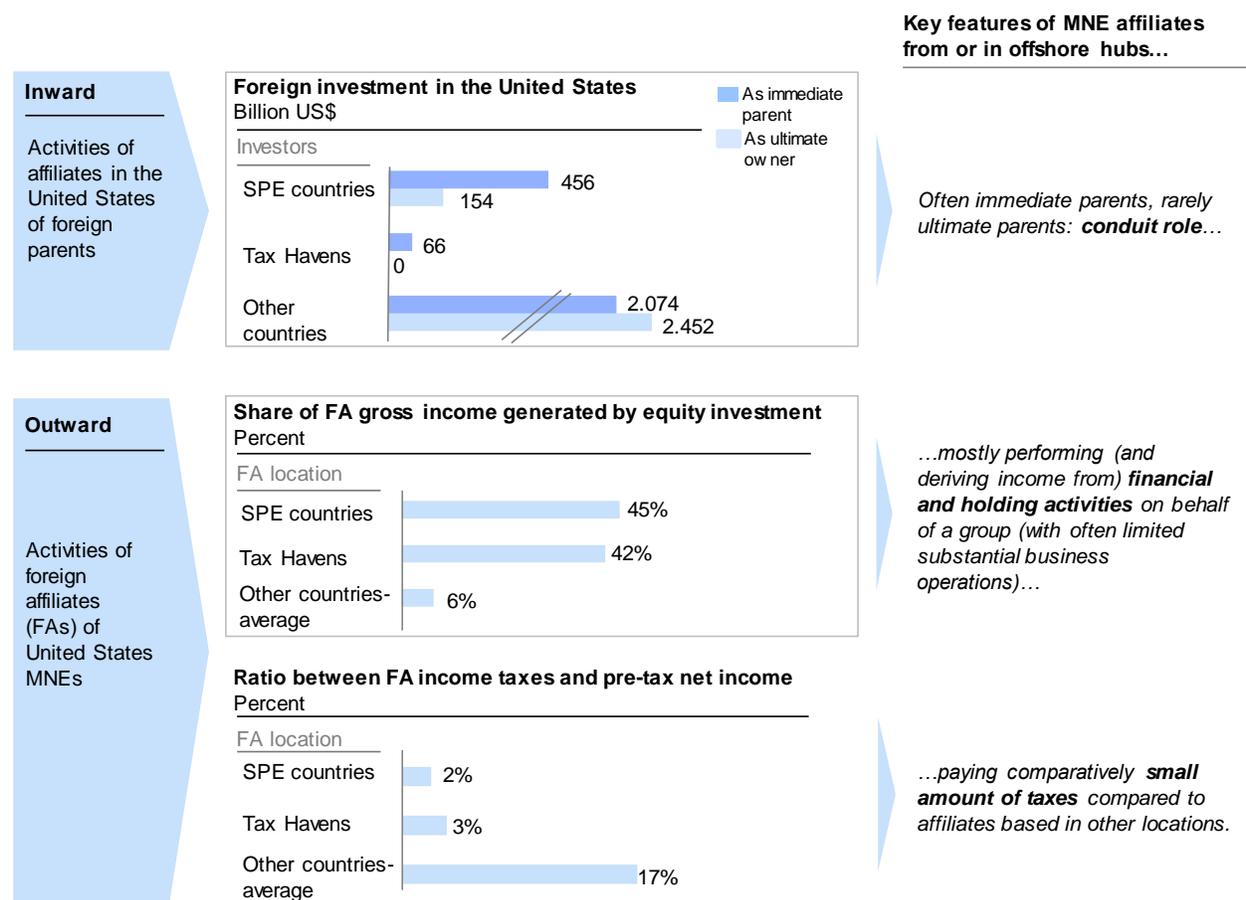
MNEs resort to a large number of tax avoidance levers. [Table 1](#) lists the main tax avoidance levers, categorized according to three enabling factors: tax rate differentials, legislative mismatches or gaps and double taxation treaties. Technical Annex II describes in detail the rationale and the functioning of each lever.

The tax-avoidance levers listed in [Table 1](#) are rarely used alone. They synergize in complex multilayered schemes where one or more layers involve an offshore hub as "*facilitator*". According to the OECD,¹³ optimized schemes typically minimize taxes under four different aspects:

- a. *Minimization of taxation in a foreign operating or source country* (which is often a medium to high tax jurisdiction) either by shifting gross profits via trading structures or reducing net profit by maximizing deductions at the level of the payer.
- b. *Low or no withholding tax at source.*
- c. *Low or no taxation at the level of the recipient* (which can be achieved via low-tax jurisdictions, preferential regimes or hybrid mismatch arrangements) with entitlement to substantial non-routine profits often built up via intragroup arrangements.
- d. *No taxation of the low-taxed profits at the level of the ultimate parent.*

¹³ See OECD (2013a), p. 44.

Figure 13. Selected firm-level evidence on the special role played by Tax Havens and SPEs in MNE investment structures



Source: United States Bureau of Economic Analysis (BEA), UNCTAD analysis

Note: Statistics for the group of "SPE countries" are based on Luxembourg and the Netherlands; for the group of "Tax Havens" on British Virgin Islands.

In practice there may be innumerable different combinations of tax avoidance levers to achieve this. A consolidated approach in the empirical literature is to focus on two archetypal categories addressing the most relevant tax avoidance schemes: first, *intangibles-based transfer pricing* schemes and, second, *financing* schemes.¹⁴ Although the precise separating line between the two is not always straightforward, both conceptually and empirically,¹⁵ it is still valuable to analyze their distinctive features.

¹⁴ For a recent discussion of the two types of schemes in the context of developing economies, see e.g. Fuest C et al. (2013b) for transfer pricing schemes and Fuest C et al. (2013a) for financing schemes.

¹⁵ Conceptually, there may be "*transfer pricing aspects*" in financing schemes and "*financing aspects*" in transfer pricing schemes. The defining terminology is more conventional than substantive. Empirically, often the schemes are used in combination by MNEs. Nevertheless substantive differences between the two types emerge in the mechanics of the schemes (Figures 14 and 15) as well as in the business implications (see also Table 2).

Table 1. Overview of the main of tax avoidance levers

Enabling factor	Specific levers
Tax rate differentials	<ul style="list-style-type: none"> • Transfer pricing manipulation (trade mispricing, use of intangible/IP, commissionaire structures) • Excessive debt financing • Others (e.g. location planning, loss utilization)
Legislative mismatches and/or gaps	<ul style="list-style-type: none"> • Hybrid mismatches • Derivative transactions • Disguised domestic investments • Deferred repatriation
Double taxation treaties	<ul style="list-style-type: none"> • Treaty shopping • Triangular structures • Circumvention of treaty thresholds

Source: UNCTAD

(i) Archetype 1: Intangibles-based transfer pricing schemes

The essence of these schemes is to transfer profit to low tax jurisdictions via transfer pricing manipulation on intangibles (and associated royalties and licensing fees), generating a divergence between where value is created and where taxes are paid. The higher the intangible component of value creation (IP rights, brands, business services, risks), the higher the profit shifting opportunities. With the very high share of profits of large MNEs based on "what they know" rather than "what they make" the relevance of this type of scheme is clear, as witnessed also by the continuing trend to introduce so-called IP boxes, where the income on intangibles is taxed at low rates. It should be noted that, although intangibles-based schemes are increasingly relevant at the global level, transfer pricing manipulation related to intra-firm trade (trade mispricing) of tangible goods is also common, especially to the detriment of developing economies where basic expertise and instruments to detect transfer pricing abuses are missing.¹⁶ For a broader discussion of issues related to abusive transfer pricing by multinationals and possible policy directions to reform the current arm's length standards, see Eden (2014).

Typical examples of intangibles-based transfer pricing schemes are in the IT sector where the high value share of the IP rights (with base erosion opportunities related to high royalty payments) and the digitalization of business operations (with the possibility to separate physical presence from value creation) create a formidable synergy to minimize taxes. OECD countries where IT firms generate most of their value have been particularly exposed to these types of schemes. The case between the UK and Google has become exemplary¹⁷ but it is not the only one. Governments around the world, especially in

¹⁶ ActionAid reports some cases (<http://www.actionaid.org.uk/tax-justice>).

¹⁷ In 2012 Google paid only £11.6 million of corporate income taxes over £3.4 billion of revenues generated in UK. This practice put Google under the scrutiny of the UK Parliament.

OECD countries, are stepping up scrutiny of tax affairs of the major multinational players in the digital economy. It is not surprising that transfer pricing in the digital economy stands out as a top priority in the OECD G20 Action Plan.¹⁸ Figure 14 illustrates a structure that has become infamous after the Google case, known as the "Double Irish-Dutch Sandwich".

Although MNEs in the IT sector do not necessarily all use exactly the same technique, the strategies they use follow very similar patterns. The scheme consists of a *main* tax avoidance lever (transfer pricing manipulation through the use of intangibles) and a number of "ancillary" tax avoidance levers (including treaty shopping, hybrids, deferred repatriation and commissionaire structures) that in combination achieve the four objectives (a)-(d) listed above.

a. Minimization of taxation in a foreign operating or source country.

(1) Intellectual property is transferred by a United States parent company (high tax jurisdiction) to an Irish incorporated subsidiary that is tax resident in a low tax jurisdiction (Bermuda). The transfer is usually done under a cost-sharing agreement when the intellectual property is not yet fully developed and hence still has a fairly low value. The price can therefore be manipulated. The transfer value is further obscured by the fact that only the non-US rights attached to the intellectual property are transferred.

(2) The intellectual property is sub-licensed by the Irish IP Holding Company to an Irish Operating Company (incorporated and tax resident in Ireland). The Irish Operating Company exploits the IP and usually earns high revenues. Sales supporting entities in the country of consumption are disguised as low risk Service Providers operating under a cost-plus agreement, minimizing the tax base.

(3) The Irish Operating Company pays high tax-deductible royalties for the use of the IP held by the Irish IP Holding Company, offsetting the high revenues from sales and achieving significant erosion of the tax base.

b. Low or no withholding tax at source.

(4) The Irish operating company does not pay the royalties to the IP Holding Company directly but through an intermediate company in the Netherlands. The intermediate company is an SPE without any substantial activity, interposed between the Irish Operating Company and the Irish IP Holding Company to avoid the payment of the withholding fees (withholding taxes would otherwise apply because the IP Holding is a Bermuda tax resident and Ireland levies withholding taxes on royalty payments to Bermuda). Through interposition of the Dutch conduit withholding taxes are fully circumvented. No withholding tax is levied on the royalty fees through use of the EU interest and royalties directive and the Netherlands does not impose withholding tax on royalty payments, irrespective of the residence state of the receiving company.

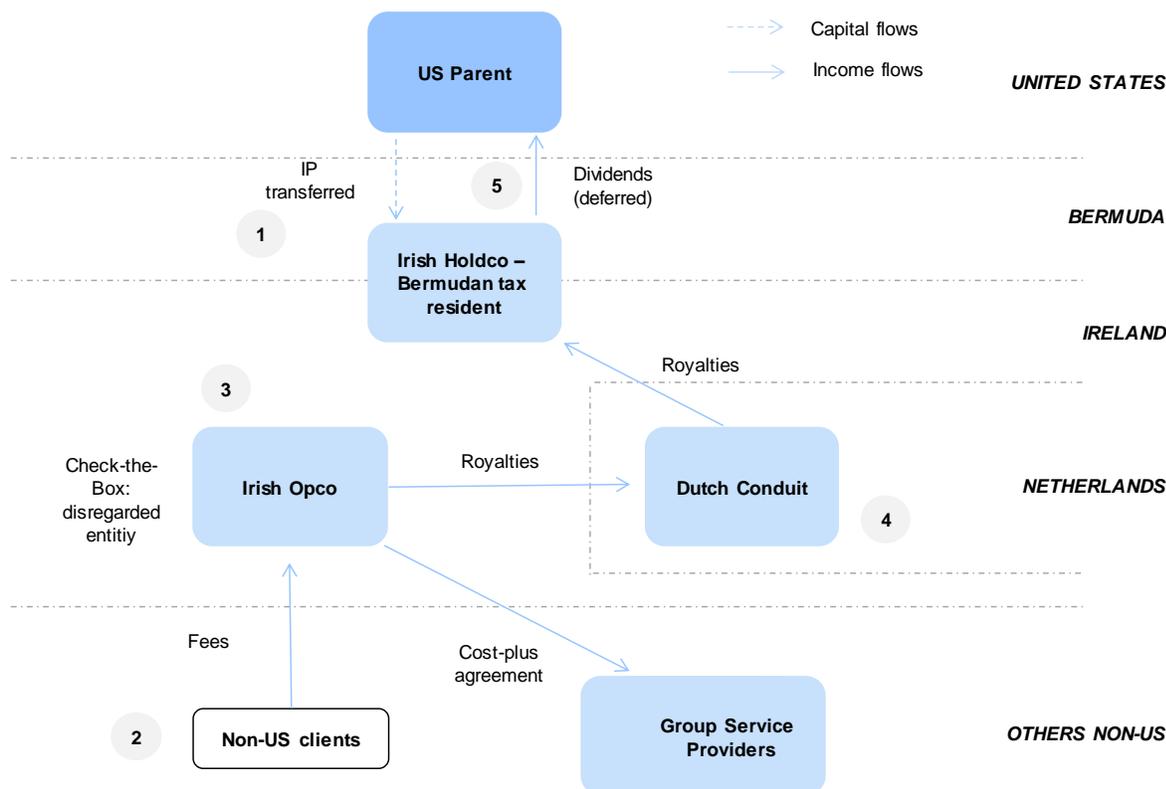
c. Low or no taxation at the level of the recipient.

(5) The Irish holding company, being a Bermuda tax resident, does not pay tax on its income in Ireland and Bermuda does not levy corporate tax. The income is retained in the Irish holding company (i.e. not repatriated to the US) to avoid United States tax.

d. No current taxation of the low-taxed profits.

(6) The Irish operating company and Dutch conduit are elected in the United States as 'check-the-box' entities (transparent for US tax purposes) and are hence disregarded by the United States. No US tax is thus levied on their income.

¹⁸ Action 1 of the OECD Action Plan for the G-20 (OECD, 2013b) is dedicated to "Addressing the tax challenge of the digital economy".

Figure 14. Example: Double Irish-Dutch Sandwich

Source: UNCTAD based on Fuest, C. et al. (2013b).

(ii) Archetype 2: Financing schemes

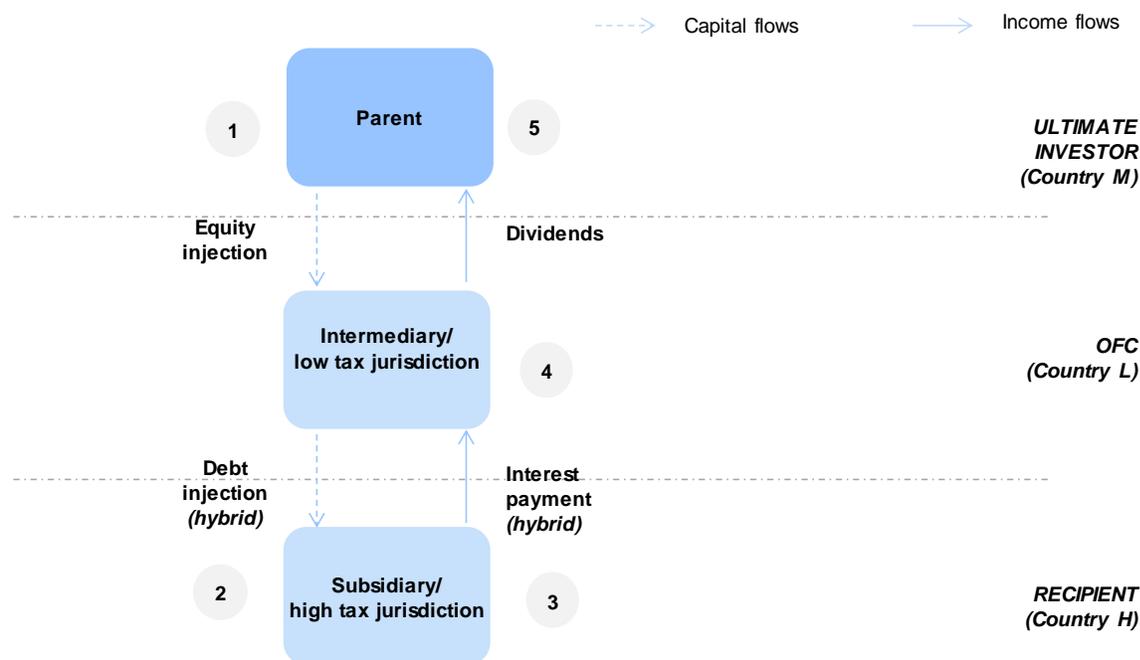
The underlying idea of these schemes is to use loans from an offshore-based entity to maximize the payments of passive interests at the level of the (high tax jurisdiction) loan recipient. This category can be generalized to include schemes involving all financing operations through offshore intermediates in order to reduce the tax bill. In addition to debt financing, other financial operations conveniently manageable through offshore investment hubs may include M&A operations where the sale of assets is managed through an affiliate in an offshore hub to reduce taxes on capital gains, or leasing operations managed through intermediate entities in hubs to maximize payments at the level of the operating company and thus to erode the tax base. Unlike transfer pricing schemes described above, these schemes can be employed also in the presence of tangible assets and are particularly suitable for highly capital-intensive industries (like the extractive industry). Furthermore, while transfer pricing schemes mostly penalize the country of consumption, this type hits the investment recipient country where operations take place (often developing countries). Although this type of scheme has had less visibility in the media compared to transfer pricing schemes, they are not less relevant.¹⁹ NGOs are also increasingly recognizing the importance of this type of scheme.²⁰

¹⁹ Recent empirical work by Dharmapala D and Riedel N (2013) suggests that *financial* income shifting due to debt interest payment is even more relevant than *operating* income shifting (driven by transfer pricing schemes). The work analyses how exogenous earnings shocks at the parent firm propagate across low-tax and high-tax multinational subsidiaries. The central result is that parents' positive earnings shocks are associated with a

From an investment perspective, this archetypal scheme is particularly interesting as it is often directly visible in FDI data, as illustrated by the debt versus equity analysis in the *Offshore Investment Matrix*.

Also for this category it is possible to identify some notable examples as illustrated in Figure 15. As in the case of the *Double Dutch-Irish Sandwich*, the scheme is founded on a basic concept built around the use of debt financing for base erosion, and combined with further levers, including treaty shopping and hybrids, in order to optimize the tax planning strategy along the four objectives explained above.

Figure 15. Example: Debt-financing structure using intermediate holding company and hybrid instrument



Source: UNCTAD.

a. Minimization of taxation in a foreign operating or source country.

(1) Parent Company located in Country M (which could be a medium or high tax jurisdiction) injects equity funding into its intermediary in Country L, a low tax jurisdiction.

(2) Intermediary Company injects funding into its subsidiary in Country H, a high tax jurisdiction. It uses a hybrid instrument to do this, hence the funding is seen as an equity injection by Country L and debt funding by Country H. The funding may be either excessive or unnecessary from an economic perspective and also in relation to the real equity in the subsidiary, however Country H does not have any thin capitalization or similar rules.

significantly positive increase in pre-tax profits at low-tax affiliates, relative to the effect on the pre-tax profits of high-tax affiliates, signalling a profit-shifting effect. Interestingly the estimated effect is attributable primarily to the strategic use of debt across affiliates.

²⁰ ActionAid (2013) proposes some case examples of tax harmful financing schemes perpetrated by MNEs in developing economies.

(3) Subsidiary Company pays interest to Intermediary Company, which it deducts for its own tax purposes, thereby paying lower taxes in Country H.

b. Low or no withholding tax at source.

(3) The interest is not subject to withholding tax in Country H due to treaty application.

(4) Similarly no withholding tax will be levied on the dividend in Country L due to treaty application.

c. Low or no taxation at the level of the recipient.

(4) The interest is seen as a dividend in Country L and Country L does not tax dividends.

d. No current taxation of the low-taxed profits at the level of the ultimate parent.

(5) If a dividend is declared to the Parent, no tax would be levied on the dividend in Country M due to a dividend exemption. Country M does not have CFC or similar legislation in place.

Table 2 summarizes the key features of the two types of schemes.

Table 2. Comparison of the two archetypal tax avoidance schemes

	Archetype 1: Intangible based transfer pricing schemes	Archetype 2: Financing schemes
Objective	<ul style="list-style-type: none"> Transfer profit to low tax jurisdictions via transfer pricing manipulation on the intangibles 	<ul style="list-style-type: none"> Erode the taxable base at the level of the financing recipient through deductibles on interest payments
Notable examples	<ul style="list-style-type: none"> Double Irish-Dutch Sandwich 	<ul style="list-style-type: none"> Financing structure using an intermediate holding company and a hybrid instrument
Tax avoidance levers	<ul style="list-style-type: none"> Main: transfer pricing manipulation (use of intangibles/IP) Ancillary: treaty shopping, hybrids, deferred repatriation, commissionaire structures 	<ul style="list-style-type: none"> Main: debt financing Ancillary: treaty shopping, hybrids, deferred repatriation
Business implications	<ul style="list-style-type: none"> Intangible businesses, digital economy Service sector Higher impact on (mostly developed) economies where customers reside 	<ul style="list-style-type: none"> Tangible, capital intensive businesses Primary and secondary sector Higher impact on (mostly developing) economies where investments are made and operations take place

Source: UNCTAD.

In conclusion, while some of the individual levers employed by MNEs to avoid tax, such as trade mispricing, may not necessarily involve offshore investment hubs, these levers are rarely deployed on their own. The archetypal schemes that are representative of the bulk of tax avoidance practices all make use of investment structures involving entities in offshore hubs.

Box 1. Investigating MNE tax avoidance practices at the firm-level: possible research directions

Detailed balance sheet and profit and loss account data on the affiliates of MNEs may allow further investigation of profit shifting and tax planning strategies. Financial information relevant for the analysis of MNE tax avoidance includes: long-term loans, equity balances, revenues, gross profit, operating profit, financing costs, net profit and taxation. Asset values (especially fixed assets) and employee numbers are also important indicators.

Financial data inform a number of metrics that can be used as "*tax avoidance signals*":

- *Loan and equity balances* can be used to compare debt-equity ratios within peer groups in order to provide an indication of potentially excessive debt funding in an entity. The ratio of debt to (non-current) assets can also be used for this purpose. For debt-asset ratios, industry specific analyses are needed to allow for differences between asset intensive businesses and others. Financing costs as a percentage of interest-bearing debt can be used as a test on artificial inflation of the interest rate (related to transfer pricing abuses).
- *Gross margins and operating margins* (i.e. gross profit and operating profit as a percentage of revenues) could be used to identify potential base erosion, with carefully selected peer group samples to reduce industry variations or factors.
- *Tax specific ratios* include tax as a percentage of revenues, gross profit or operating profit, which may provide insight into excessive deductions that are taking place in a company. Effective Tax Rates (ETR) between domestic and foreign-owned companies can also be compared, e.g. tax (current and deferred tax) over net profit (before tax).

Different approaches are feasible. For a target *country*, the expectation that foreign-owned companies are more prone than national ones to tax planning techniques can be tested. For a target *group of MNEs* (for example top 100 global MNEs), the comparison could take place across subsidiaries of the same multinational corporate group with the purpose of identifying differences in profit levels, taxation and debt across countries in accordance with tax arbitrage strategies. In all cases, in addition to firm-level financials, complete visibility of the MNE ownership structure is necessary, which can be provided (with limitations on coverage and depth) by databases such as *ORBIS*, provided by Bureau van Dijk. UNCTAD will aim to explore these investigative options further in future work in this area.

Source: UNCTAD, Fuest C and Riedel N (2010).

III. TAX AVOIDANCE BY MNEs AND DEVELOPING COUNTRIES

The process of formulating the Sustainable Development Goals (SDGs) and the related Financing for Development discussion have raised the political profile and public awareness of the role of taxation as a source of development financing and focused attention on the detrimental impact of tax avoidance schemes on developing economies.

Tax is a major component of the development financing pool. Concorde (2013) estimates the total amount of domestic sources of development financing at some 60% of the aggregate GDP of developing economies against 5% for external sources, with taxation at 15% to 30% of GDP representing a significant share of domestic sources.²¹ The OECD²² calculated in 2010 that at the aggregate global level up to half of annual additional resources needed to achieve the (first six) Millennium Development Goals (MDGs) could be recovered just by improving developing economies' tax revenue collection. The situation will be similar for the SDGs.

The concerns of development organizations and NGOs related to BEPS practices in developing countries center around two issues: (i) Developing economies are less equipped than developed economies to counter corporate tax avoidance, therefore their *exposure* may be greater; and (ii) The *impact* in terms of resource losses for developing economies is significant, especially against the background of the scarcity of available local resources and the development financing gap.

The FDI-based analytical toolkit introduced in this working paper provides a methodology to assess both the exposure of developing economies to FDI from offshore investment hubs, and to estimate the resulting tax revenue losses. The distinctive feature and to some extent also the limitation of the approach is to focus specifically on the role and the impact of offshore hubs as immediate investors into developing economies. It is important to point out that a direct investment link to an offshore hub is not a prerequisite for profit shifting. However such links enable some important forms of profit shifting and they are usually part of the tax planning strategy of MNEs. In particular while transfer pricing-based structures (Archetype 1) may or may not entail direct investment exposure to hubs, financing schemes (Archetype 2) typically leverage FDI links to create a "*direct channel*" for profits to easily reach offshore locations.

A. Exposure of developing economies to corporate investments from offshore hubs

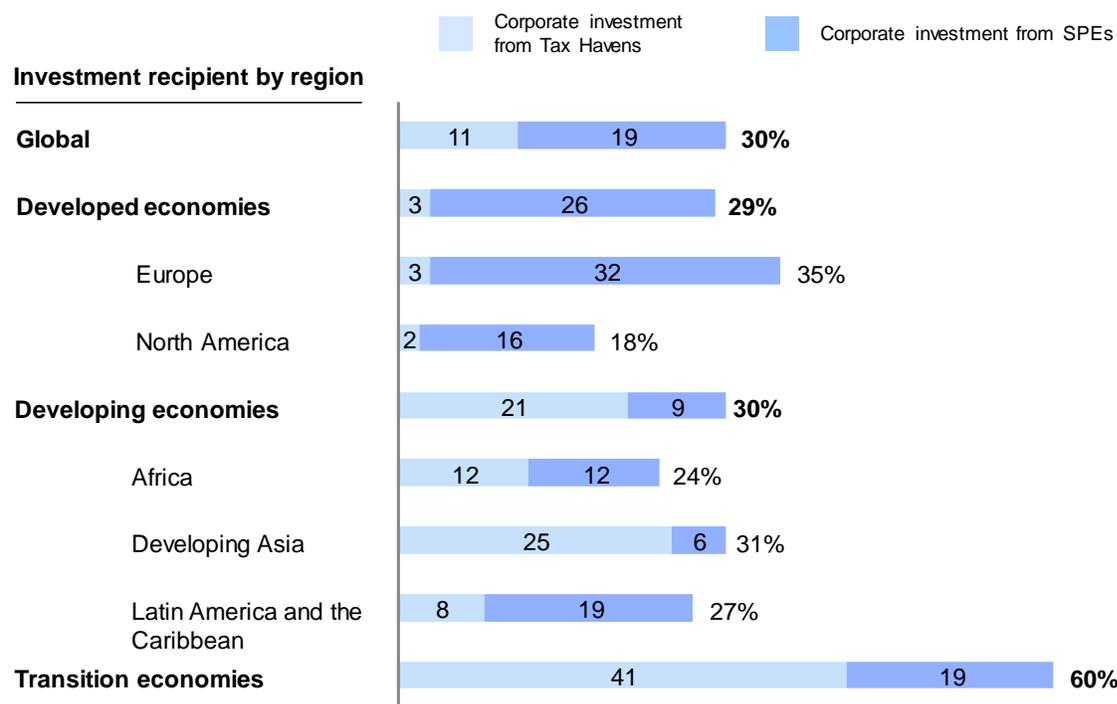
Tax avoidance practices by MNEs are a global issue relevant to all countries: the exposure to investments from offshore hubs is broadly similar for developing and developed countries. However, profit shifting out of developing countries can have a significant negative impact on their sustainable development prospects. Developing countries are often less equipped to deal with highly complex tax avoidance practices because of resource constraints and/or lack of technical expertise.

The share of inward investment stocks originating from offshore hubs provides an indication of the level of exposure of developing economies to BEPS practices. Figure 16 shows the share of investment from offshore hubs (Tax Havens and SPEs) in total productive investment into other countries across different regions. The shares for developing and developed regions are substantially aligned, at around 30% of total investment stock.

²¹ Based on Concorde estimates, public domestic sources represent on average 30% of GDP (including in addition to taxation, social security contributions and other revenues such as fines and income from property); the remaining part of domestic sources (28%) consist of domestic private sector investments. Domestic taxation ranges from 15% of GDP for low income countries to 30% for high income countries. External sources at 5.4% of GDP include loans (1.8%), remittances (1.5%), FDI (1.3%), ODA (0.6%) and others (1.5%).

²² See Atisophon V et al. (2011).

Figure 16. Exposure to investments from offshore investment hubs, by region, 2012
Share of corporate investment stocks from offshore hubs (Tax Havens and SPEs)



Source: UNCTAD estimates based on IMF CDIS 2012 and 2011, Central Banks for SPE investments.

Note: For countries reporting SPE data only the share corresponding to investment from SPEs is considered in the estimates. The set of recipient countries includes only non-OFCs. Analysis based on the *Offshore Investment Matrix*, one-sided perspective. See technical Annex II for further details.

While the *scale* of the exposure is similar, the relative weight of Tax Havens and SPEs differs between developed and developing countries, with Tax Havens much more relevant for developing countries (at two-thirds of total offshore hub exposure against only one-tenth for developed economies). Regional patterns reflect the fact that specific jurisdictions tend to act as preferential investment hubs for their entire region. For developed economies, in particular for Europe, SPEs in Luxembourg and the Netherlands cover the lion's share. For developing economies the picture is more differentiated. Latin America and the Caribbean also receive a significant share of investment from Dutch SPEs. However, investment in Africa heavily relies on Mauritius while the British Virgins Islands represent the reference offshore hub for investment in Asia (in particular to China and Hong Kong). Finally, the picture for transition economies is skewed by very large investment from Cyprus to the Russian Federation.

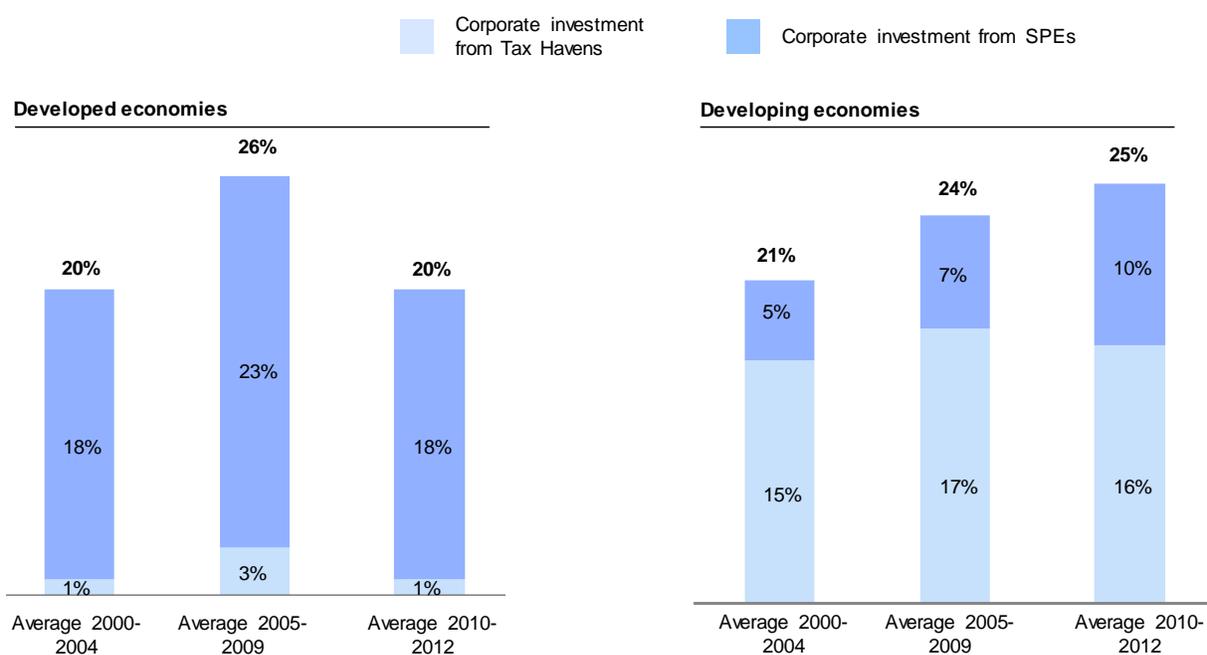
The share of investment coming from offshore hubs in investment in Africa at 24% is lower than in other developing regions. This seems in contrast with other empirical evidence and studies suggesting that Africa faces more severe tax avoidance issues. Africa may face tax avoidance practices that do not require direct investment links to offshore hubs (see next section). Also, the average for the continent disguises tax avoidance issues in individual countries – especially the poorest countries that weigh less in the aggregate picture. Furthermore, the perception of low MNE fiscal contributions in Africa may also be due

to high levels of tax competition in the region resulting in low effective tax rates, rather than erosion of the tax base.²³

While the analysis based on the *Offshore Investment Matrix*, which is based on stocks, shows a snapshot of the current situation, a look at offshore links in investment flows reveals how exposure to hubs has evolved over time. This perspective highlights a negative trend for developing economies. It shows that their exposure to investments from offshore hubs is on the rise, while that in developed countries has started shrinking in recent years. In particular, while historically developing economies have been more vulnerable to investments from Tax Havens (as the stock analysis confirm), recently the share of inflows from SPEs has steadily increased and *de facto* doubled in 10 years (Figure 17).

Figure 17. Evolution of the exposure to offshore hub investment, by level of development

Share of corporate investment flows from offshore hubs (Tax Havens and SPEs), multi-year averages



Source: UNCTAD FDI database, national statistics, UNCTAD estimates.

Note: See Figure 12, also based on flows.

²³ Existing studies tend to capture the effect of tax competition rather than that of profit shifting. In empirical studies African countries commonly exhibit the lowest effective tax rates at around 15%, in part due to the abuse of tax incentives and special regimes to attract investment. A recent study from the World Bank (2013) estimates the *tax to GDP ratio* for low-income countries at less than 15% against some 30% for high-income countries; and OXFAM elaboration of World Bank data (OXFAM, 2011) yields a *tax to GDP ratio* of Sub-Saharan Africa at 18% against 38% for European countries. However, both the ETR and the *tax to GDP ratio* assess tax revenue collection against a baseline (either pre-tax corporate profits or GDP) that is already depressed by profit shifting. They are thus more suitable for addressing the impact of tax incentives (leading to cuts of the tax payments given the taxable base) rather than of profit shifting schemes (designed instead to erode the taxable base itself).

B. Tax revenue losses for developing economies from hub-based tax avoidance schemes

Tax avoidance practices are responsible for a significant leakage of development financing resources. An estimated \$100 billion annual tax revenue loss for developing countries is related to inward investment stocks directly linked to offshore investment hubs. On average, across developing economies, a 10% additional share of inward investment stock originating from offshore hubs is associated with a decrease in the reported (taxable) rate of return of more than 1 percentage point. The revenue loss from MNE tax avoidance represents around one-third of corporate income taxes that would be due in the absence of profit shifting, and one-tenth of the potential value at stake taking into account the total contribution of MNEs as well as fiscal discounts actively provided by governments in the form of incentives to attract investment.

The quantification of profit shifting is a challenging exercise. First, tax avoidance options can be numerous. MNEs employ highly sophisticated and creative combinations of individual tax avoidance levers. Second, by the nature of the phenomenon, the available data and information is limited. The profits shifted to offshore locations are difficult to track as they typically do not appear in any official reporting: not, obviously, in the financial reporting of the foreign affiliates where the value is generated; and not in that of the foreign affiliates where it is shifted to due to often lax reporting requirements. Given the complexity of the issue, existing studies aim at quantifying specific aspects of corporate profit shifting rather than attempting a holistic approach. The effort is still valuable as integrating the different approaches provides an order of magnitude of the losses caused by international corporate tax avoidance.

Annex II provides an overview of the main approaches developed so far to estimating profit shifting and tax revenue losses due to cross-border corporate tax avoidance. The FDI-driven approach employed in this working paper stands at the intersection of some of those existing approaches.

The methodology proposed builds on the assumption of a negative relationship at country level between the share of inward investment stock from offshore hubs and the rate of return on the total inward FDI stock. The underlying assumption is that the portion of income generated by foreign direct investments from offshore hubs is subject to profit shifting, with the effect of "artificially" deflating the average rate of return on foreign investments (computed as the ratio between return on investment and inward investment stock). Thus, *ceteris paribus*, the higher the share of inward investment stocks from offshore hubs, the lower the rate of return.

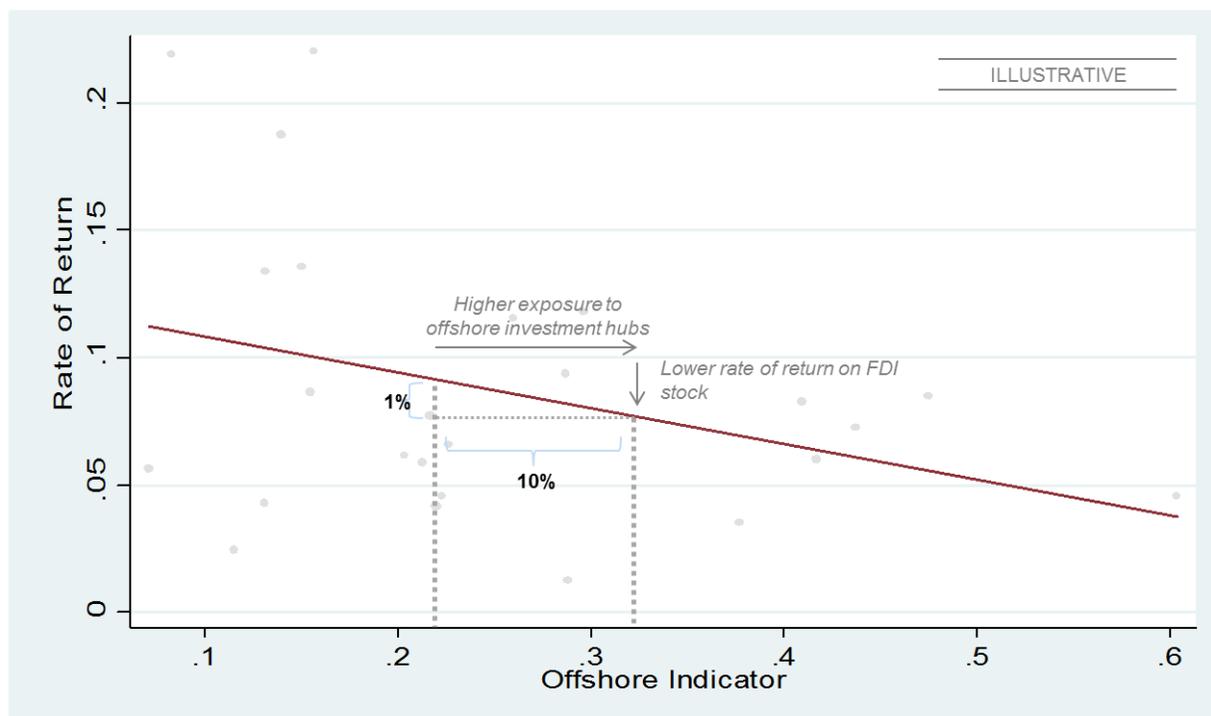
The relationship is supported by country data that confirm a negative and significant linear correlation between the two variables. To capture the full impact of exposure to offshore hubs on investment profitability, and to ensure greater statistical validity of the relationship between offshore hub investment links and rates of return on investment, the econometrics are based on an extended perimeter of offshore investment hubs compared to the one employed in chapter II. Full details on the different perimeter options are described in technical Annex II.

Econometric analysis suggest that on average, across developing economies, an additional 10% share of inward investment stock originating from offshore investment hubs is associated with a decrease in the rate of return of 1-1.5 percentage point (Figure 18 illustrates this relationship).

Although it is challenging to irrefutably prove a direct causal relationship between exposure to offshore hubs and reduced profitability of FDI,²⁴ this analysis provides some empirical underpinning to widespread evidence that MNEs leverage direct investment links to offshore financial centers to enable profit shifting practices that ultimately result in artificially low FDI income. More importantly, the quantification of the responsiveness of the rate of return to offshore hub exposure allows a *simulation* of the potential impact of these practices on tax revenues.

²⁴ As the relationship between offshore hub investment links and rates of return on investment holds across countries, it is not possible to exclude compositional effects of specific countries driving the results. Annex II reports the results of the analysis and discusses methodological and analytical issues, including causality tests.

Figure 18. Illustration of the relationship between the share of inward investment from offshore investment hubs and rate of return on inward investment



Source: UNCTAD analysis based on data from the IMF Balance of Payments database and IMF CDIS.

Note: Scatterplot representing the relationship between offshore hub exposure (*Offshore Indicator*) and rate of return on investment stock (*Rate of Return*) for developing countries. "Conservative" case with beta coefficient at -10%. The fitted line is merely illustrative and does not reflect the econometric modeling behind the estimation of the beta coefficient (econometrics rely on a larger sample of data points, including four years, and accounts for regional fixed effects and time fixed effects; see Annex II for details).

Once a significant relationship between the *Offshore Indicator* and the *Rate of Return* has been established, the tax revenue losses can be calculated through appropriate assumptions on the *profitability gap* ("how much FDI income is missing due to investments from offshore investment hubs") and on the average corporate tax rate.

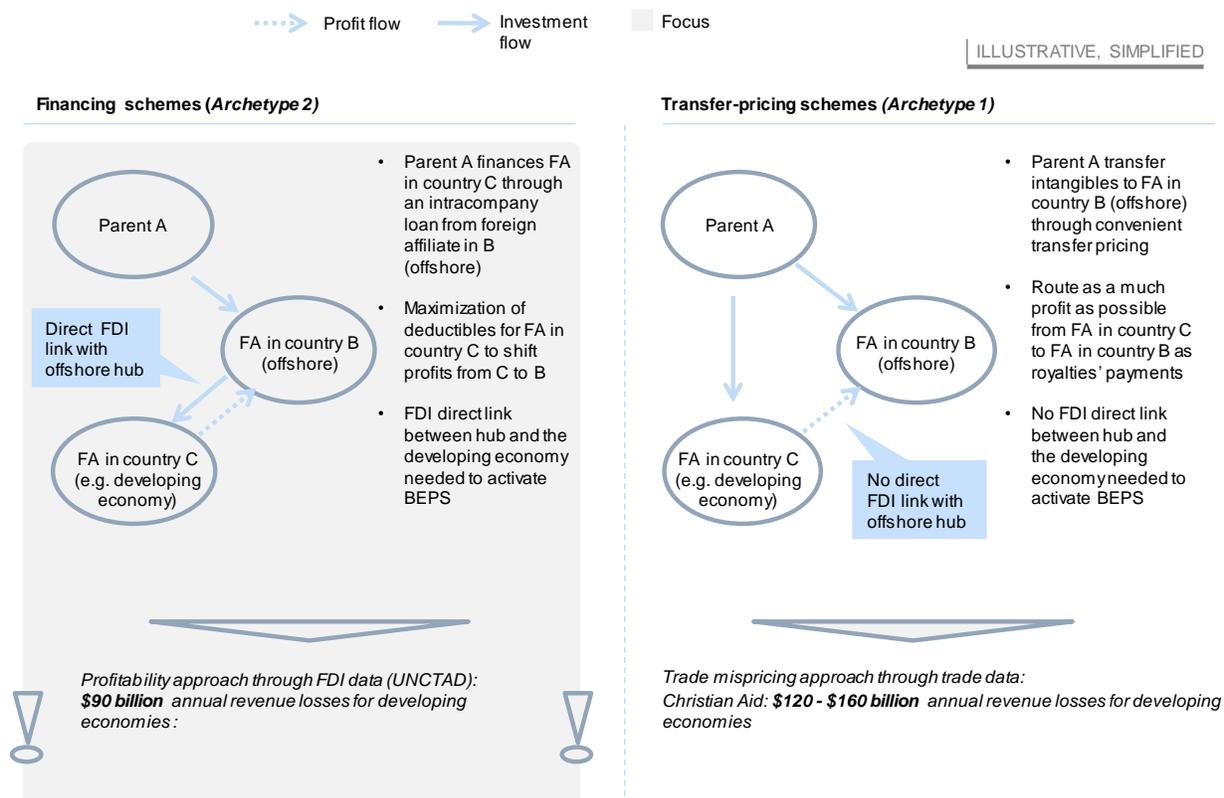
UNCTAD simulation indicates that the amount of corporate profits shifted from developing economies is around \$450 billion implying, at a weighted average effective tax rate across developing countries at 20%, annual tax revenue losses of some \$90 billion. Annex II shows the parameters of the simulation and the outcomes, including a sensitivity analysis employing two formulations of the dependent variable (total rate of return on FDI income *vs.* rate of return on the equity component of the FDI income) and two definitions of tax rates (effective tax rate *vs.* statutory tax rate), with results ranging from \$70 to \$120 billion.

The estimated profit shifting and tax revenue losses are mostly confined to those associated with tax avoidance schemes that require a direct investment relationship through equity or debt, such as financing schemes (Archetype 2). Trade mispricing does not require a direct investment link: MNEs can shift profits between any two affiliates based in jurisdictions with different tax rates. Especially in the context of the digitalized economy, a significant share of transfer pricing practices exploits schemes similar to Archetype 1 – intangibles-based transfer pricing schemes. Although these schemes also involve offshore

hubs, they do not necessarily appear in host-country FDI inflows; it is enough that the corporate network includes an affiliate based in an offshore location, even if the investment to the particular host country is not channeled through it.

Therefore, the results presented here do not necessarily capture the full extent of MNE tax avoidance. They complement findings from other relevant studies focusing on the revenue losses for developing economies generated by corporate trade mispricing schemes, such as Christian Aid, 2008 (\$120 - \$160 billion).

Figure 19. Two approaches to estimating profit shifting compared



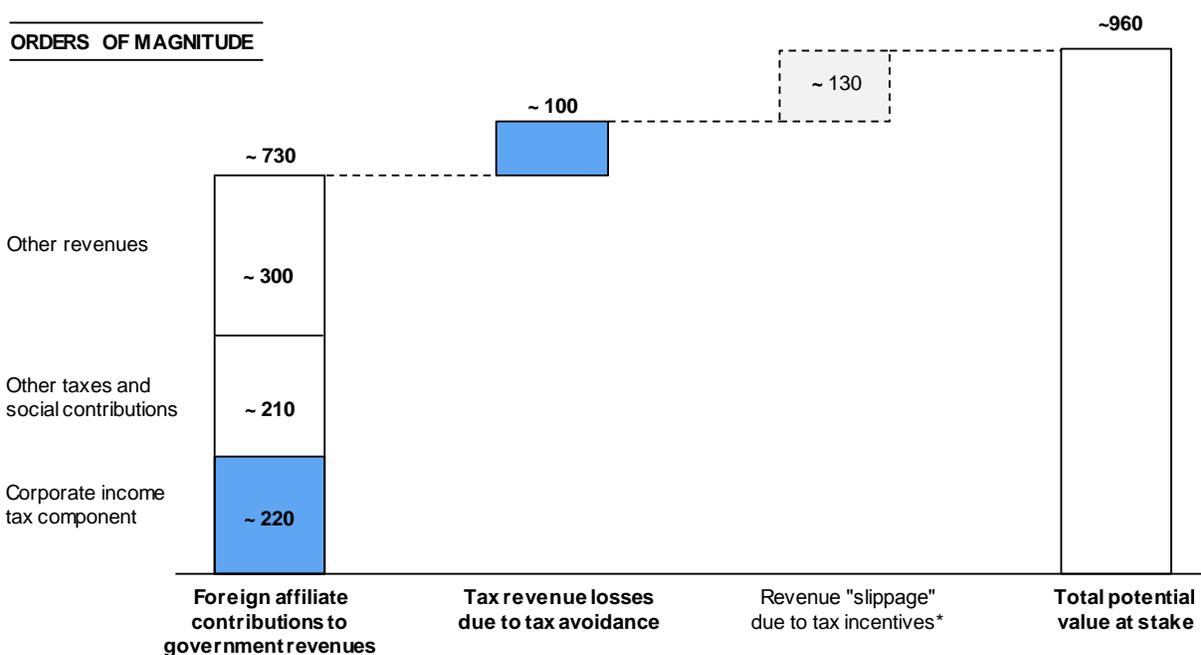
Source: UNCTAD.

Beyond tax revenue losses, the leakage of development resources is not limited to the loss of domestic fiscal revenues. It also affects overall GDP (as the profit component of value added is reduced).

Notwithstanding the fact that the revenue leakage due to tax avoidance practices are substantial, putting the leakage estimate in the context of the total potential value at stake for developing country governments provides some perspective (Figure 20). Chapter I showed that the total contribution of MNE foreign affiliates to government revenues amounts to some \$730 billion. Around \$220 billion of that amount relates to corporate income taxes, which are affected by base erosion and profit shifting practices. The remainder relates to other revenues, especially royalties on natural resources, and other taxes, especially those on international transactions.

In addition, losses caused by MNE tax avoidance practices are not the only form of revenue leakage for governments. As mentioned in the Introduction, an additional form of "slippage" is caused by fiscal incentives actively provided by governments to attract investment. Estimates from external sources – ActionAid²⁵ – arrive at around \$130 billion. Adding this number to the contribution of MNEs to government revenues, to arrive at an indication of revenue potential, the total value at stake for developing country governments is nearly ten times the amount of tax revenue losses calculated here. That does not include the value at stake in terms of much needed new investment in productive capacity and infrastructure in developing countries.

Figure 20. Foreign affiliates contributions to government revenues, leakage and slippage compared, developing countries only, reference year 2012, US\$ Billions



* External estimate

Source: UNCTAD estimates; estimates for revenue losses due to incentives from ActionAid.

²⁵ Based on tax expenditure data for a sample of 20 developing countries, M. Hearson estimated the revenue loss related to tax incentives granted on corporate income taxation at a half point of GDP (0.6 % simple average; 0.47% weighted average). Using the 2012 GDP for developing economies at \$25.5 trillion leads to total losses of around \$130 billion. See the ActionAid website for more details <http://www.actionaid.org/2013/07/tax-incentives-cost-138-billion>.

IV. TAX AND INVESTMENT POLICYMAKING: AN UNCTAD PROPOSAL

Tax avoidance practices by MNEs lead to loss of revenue for governments in both host and home countries of investors and to basic issues of fairness in the distribution of tax revenues between jurisdictions that must be addressed. A balanced approach to tackling tax avoidance takes into account the overall value at stake, including the current contribution to government revenues by MNEs and the existing tax base, as well as new productive investments by MNEs and the future tax base.

Tax avoidance practices by multinational enterprises and international investors are widespread and cause significant tax revenue losses worldwide – in both host and home countries of international investors. They cause a basic issue of *fairness*. In almost all cases the shift in profits through the use of offshore investment hubs will not be reflective of actual business operations (i.e. the profits reported and taxes paid in a jurisdiction are disproportionate to the activities that take place there). The shifting of profits between jurisdictions results in an unfair distribution of tax revenues between jurisdictions.

The practice is especially unfair to developing countries with:

- *Limited tax collection capabilities.* Accurately identifying tax-planning practices requires an analysis of global operations for individual MNEs, an unrealistic task for most countries, and thus especially developing ones. There is a clear case for technical assistance to developing-country tax authorities.
- *Greater reliance on tax revenues from corporate investors.* Developing economies tend to rely relatively more on tax revenues from a smaller number of large corporations. Only 41 of the most significant companies in India contribute just over 16% of the total government corporate tax receipts and almost 5% of the government's total tax receipts. In South Africa close to 24% of total government corporate tax receipts is contributed by 35 of the biggest companies, which represents approximately 6% of total government tax receipts.²⁶
- *Growing exposure to harmful tax practices and tax avoidance by MNEs.* Developing countries have seen the share of investment stocks originating from offshore locations nearly double in the last decade. While the share of their investments from Tax Havens was already higher than in developed countries, the share originating from SPEs is rapidly catching up.

Furthermore, at the business level, the low taxes paid and higher net after-tax profits can provide MNEs with an unfair advantage compared to domestic firms. This directly impacts market competition and suppresses the survival and growth of the small and medium-sized businesses that are vital for development. (In fact, the BEPS initiative is not driven by revenue considerations alone, but also by the need to reduce distortions between MNEs and domestic companies, and between those MNEs prepared to engage in aggressive tax planning and those that are not – leveling the playing field.)

At the same time, it is fair to note that tax avoidance (as opposed to tax evasion) is not illegal – although often there is no "bright line".²⁷ A full perspective on corporate behavior warrants a number of observations:

- Corporate representatives have in the past often used their obligation towards shareholders to manage finances efficiently as a shield. More recently, many MNEs are increasingly acknowledging a wider set of obligations and corporate social responsibilities (CSR) and, more

²⁶ See PwC (2008) and PwC (2013a).

²⁷ The very concept of "anti-avoidance rules", which obviously make a targeted type of avoidance illegal, blurs the definitional distinction. The distinction also does not address the possibility of retrospective measures which would change the characterization of actions over time.

importantly, recognizing reputational risks, leading them to engage in more open dialogue with tax authorities.²⁸

- There is an intense ongoing debate, at the level of basic taxation principles, on the fairness of some taxes, especially withholding taxes, which can have effects equivalent to double taxation inducing MNEs to engage in some avoidance practices.
- The base erosion and profit shifting debate focuses largely on corporate income tax (and few other taxes) while MNEs pay many other taxes, including taxes on labour, assets, use of resources, indirect taxes, levies and duties. As demonstrated in the first chapter of this working paper, in developing countries the direct and induced fiscal contributions of MNEs often constitute a relatively high share of total government revenues.

These observations do not diminish the clear imperative to tackle tax avoidance practices and to ensure that MNEs "pay the right amount of tax, at the right time, and in the right place". But they support the argument for a balanced approach in doing so, taking into account the full contribution that MNEs make to economic growth and development, as well as to government revenues, and taking into account the need for countries worldwide, and especially developing economies, to attract new investment, especially in productive capacities and infrastructure.²⁹

A. The tax-investment policy link and the need for a synergistic approach

Taking action on tax avoidance will have effects on international investment that must be considered carefully. Currently, offshore investment hubs play a systemic role in international investment flows. Measures at the international level that might affect the "investment facilitation" role of offshore hubs, or that might affect key investment facilitation levers (such as tax treaties), need to take into account the potential impact on global investment and include an investment policy perspective.

The investment data and the results of the analyses in this working paper show a massive and still growing use of offshore investment hubs by MNEs. As a result of growing international scrutiny, a number of hubs, and especially SPE jurisdictions, are becoming more aware of their role in international investment schemes and the potential negative effects on other jurisdictions, and are taking steps to address the situation. There is increasing cooperation, transparency and exchange of information. SPE jurisdictions are also gradually tightening substance requirements, or including stronger anti-abuse and denial of benefits clauses in their tax treaties. The Netherlands, for example, has offered its treaty partners the option to renegotiate existing treaties in order to include anti-abuse measures. Ireland is proposing amendments to tax residence rules to prevent "stateless" entities.

Moreover, the role of offshore hubs in global investment cannot be explained and addressed only in terms of the characteristics and "responsibilities" of individual hub jurisdictions. The scale of the phenomenon clearly indicates that it is a *systemic issue*; i.e. offshore investment hubs play a systemic role in the current international investment environment. They are by all accounts standard and widely adopted tools for MNE tax and financial optimization, used by all competitors on a level playing field for MNEs, if not for domestic firms. Their systemic nature is clear considering the fact that they are even used at times by development finance institutions.

Responsibility for the wide-spread use of hub-based corporate structures and tax avoidance schemes by MNEs should be widely shared. Home countries of investors often do not have effective legislation in place to prevent the use of hub-based structures, or even unintentionally encourage the use of such

²⁸ For a discussion on the importance of constructive and transparent dialogue between tax authorities and taxpayers, see Owens (2013).

²⁹ For a discussion on tax policy as an investment determinant, see Owens (2012b).

structures by their MNEs. The "*tick-the-box*" practice applied in United States CFC (Controlled Foreign Company) legislation is often pointed at as facilitating the use of umbrella entities based in favorable locations. Host countries are often equally complicit, as their focus is on attracting investment, if necessary at the cost of engaging in tax competition.³⁰ A degree of tolerance for tax avoidance schemes by MNEs may be a way to reduce the visible component of such tax competition.

The acknowledgement of the systemic nature of the issue carries two important consequences with critical implications for policymaking. First, the "*naming and shaming*" approach targeting offshore investment hubs may be too restrictive. Second, any measures aimed at limiting the role of offshore hubs in order to counter tax avoidance and profit shifting should consider the potential impact on global investment.

Policy action aimed at reducing the use of offshore locations as investment hubs by MNEs must start from the basic question of what makes offshore hubs attractive and what drives their outsized role in global investment. Offshore hubs, in particular SPE jurisdictions, are attractive as conduits for investment because they often provide large networks of tax treaties and investment protection treaties. In their domestic legislation they provide low (or sometimes negotiated) tax rates, their company law allows for the set-up of legal entities that are useful in international investment structures and tax schemes, and they offer a favorable business climate and other locational advantages. Many of these features are not exclusive to these jurisdictions. They are already offered by an increasing number of other countries, motivated often by a level of tax competition. Any policy action addressing offshore hubs must therefore be of a *systemic nature*, not aimed at individual jurisdictions or a small group of countries, because corporate structures will adapt to new realities and find alternative conduits, and investment flows will take new routes to continue exploiting regulatory arbitrage opportunities.

Some of the uses of offshore investment hubs and offshore vehicles by international investors are not motivated primarily by tax considerations. For example, in the case of mergers or joint ventures between partners from different countries with different legal and tax systems, offshore hubs may provide an attractive neutral location for the entity. They can also help firms from countries with weak institutions to set up international businesses more easily and to gain access to international capital markets and legal systems (a key driver of the phenomenon of round-tripping FDI).³¹ Lower transaction costs and economies of scale also likely play a role: once a vehicle has been set up to manage an MNE's overseas holdings, whether actively or purely administratively, it is easier to route any new investments or reinvestments through the same vehicle.

Whether for tax avoidance or other purposes, it is clear that offshore investment hubs are playing a facilitating role in international investment. Diminishing that role will have two types of effects on global investment flows:

- Investments will take a *different route* from their origin or home-country to their destination or host country. Existing investments will be re-routed, leading to a likely amplified initial impact of any policy action. Assuming effective policy action, investments should take a more direct route, leading to clearer investment links between host countries and countries of the ultimate beneficial owners of the investment.
- *Overall international investment levels may be reduced*, for three reasons:
 - o Higher transaction costs could make some investments less attractive;
 - o Higher taxes on international operations could cause the after-tax returns of some investments to drop below investor hurdle rates;

³⁰ For a discussion on positive and negative effects of tax competition, see, for example, Owens (2012a).

³¹ See UNCTAD *WIR13* on FDI and offshore finance, p.17.

- o The removal of tax advantages of international investors that gave them a competitive edge over domestic operators could lead to a shift towards domestic investment.

While the latter effect is positive in theory, leading to higher domestic investment (although this effect may be limited, especially where domestic capital is scarce), on balance higher transactions costs and higher taxes on international operations could diminish overall investment levels at a time when such investment is sorely needed for economic growth and development.

On the one hand, where investments are desirable for development or other public policy purposes, but unattractive for international investors, it could be argued that artificially increasing investor returns through tax avoidance is the wrong tool and would lead to an incorrect distribution of costs of public policy objectives. Direct support to such investments, or public-private partnerships to share risks and change the risk-return picture, would be more appropriate.

On the other hand, policymakers engaged in international discussions on BEPS would do well to assess not only the impact on the level and distribution of fiscal revenues of any proposed intervention, but also the impact on investment. The *Offshore Investment Matrix* is a helpful tool to start such an assessment, as it provides insights into the share of investments from and to countries affected by offshore hubs, and indications on the relative importance of archetypal schemes.

B. Towards guidelines for Coherent International Tax and Investment Policies

A set of guidelines for Coherent International Tax and Investment Policies may help realize the synergies between investment policy and initiatives to counter tax avoidance. Key objectives of the 10 guidelines proposed for discussion in this working paper include: removal of aggressive tax planning opportunities as investment promotion levers; mitigation of the impact of anti-avoidance measures on investment; recognition of shared responsibilities between investor host, home and conduit countries and the consequent need for a partnership approach; acknowledgement of links between international investment and tax agreements; and understanding of the role of both investment and fiscal revenues in sustainable development and of the capabilities in developing countries to address tax avoidance issues.

Recognizing the growing significance of tax avoidance by MNEs, the international community – policymakers in the G20 and beyond, international organizations such as the OECD and the United Nations, and NGOs – are engaged in debate and working on concrete initiatives to counter the phenomenon. The focus of their attention is largely on tax policy, accounting rules and company law, and on initiatives to improve information exchange and to increase pressure on Tax Havens. However, given the fundamental role of investment in building the corporate structures that enable tax avoidance, investment policy should form an integral part of any solution. Conversely, any policy initiative tackling tax avoidance by international investors is likely to affect national and international investment policies.

In considering the interdependence and potential synergies between investment policy and anti-tax-avoidance initiatives, policymakers at both the national and international level may be helped by a set of guidelines for synergistic international tax and investment policies. These guidelines may be considered design criteria for any G20 action, and common-sense suggestions for national investment policymakers and tax authorities.

The policy guidance for coherent international tax and investment policies proposed below is based on the following three *fundamental principles*.

Principles for Coherent International Tax and Investment Policies

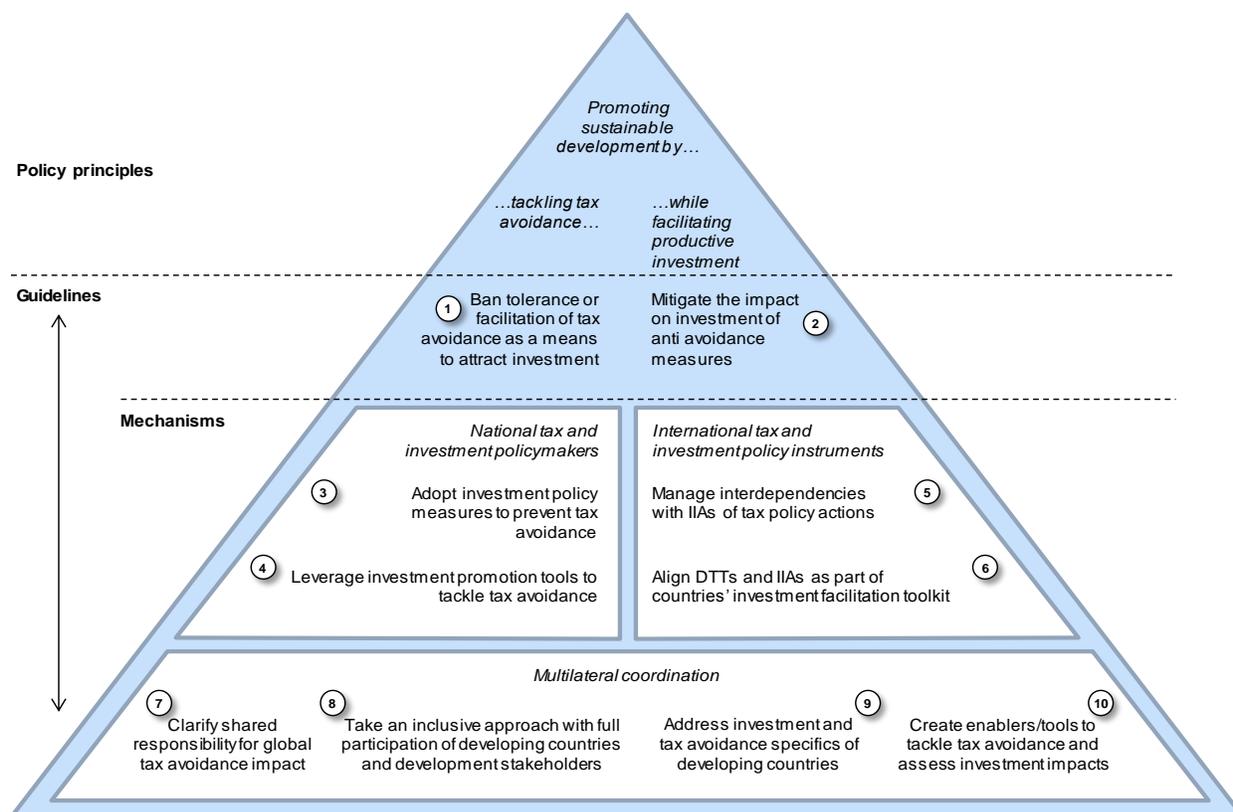
- Promoting sustainable development by...* • A core objective of both international tax and investment policies is financing sustainable development. Investment policies promote *private* investment and tax policies enable *public* investment in sustainable development.
- ...tackling tax avoidance...* • MNEs should pay tax where economic activity takes place and value is created. Undue distortions should be minimized to ensure a fair distribution of revenues across countries and a level playing field for domestic and foreign firms.
- ...while facilitating productive investment* • International tax policies and anti-avoidance measures should take a balanced approach considering the total value at stake, including the potential impact on the existing tax base and on future investment for development.

In addition, the guidelines are structured around the following key mechanisms for action:

- Action through national tax and investment policymakers.
- Action through the international tax and investment policy architectures and instruments.
- Action through multilateral coordination.

Figure 21 illustrates the concept, and the guidelines are further elaborated in the subsequent numbered text. The text is available on UNCTAD's Investment Policy Hub (<http://investmentpolicyhub.unctad.org/>) for consultation and feedback.

Figure 21. Guidelines for Coherent International Tax and Investment Policies



Source: UNCTAD.

Possible guidelines for Coherent International Tax and Investment Policies

1. Tolerance or facilitation of tax avoidance should not be considered an instrument either to attract inward investment or to support the competitiveness of MNEs abroad

- *...a country's potential loss of attractiveness as an investment destination as a result of anti-tax avoidance measures should not be considered a valid argument in international discussions or negotiations on the subject (this holds for all countries including offshore locations that attract mostly transit FDI)*
- *...where countries wish to provide fiscal advantages to attract investors or to support investment overseas, fiscal incentives, which can be sector or project specific, time-bound, and conditional are the more appropriate lever (within the boundaries of existing international commitments)*
- *...similarly, where countries wish to attract specific investments to pursue public policy objectives, increasing investor returns through tolerance or facilitation of tax avoidance will tend to lead to an incorrect distribution of costs; direct support to such investments or risk-sharing arrangements would be more appropriate*

2. Measures to address tax avoidance by MNEs should carefully assess the potential impact on investment for development

- *...policymakers engaged in international discussions on BEPS should assess – and scenario-test – not only the impact on the level and distribution of fiscal revenues of any proposed intervention, but also the impact on investment, especially to developing countries*
- *...while addressing tax avoidance policymakers (including at the multilateral level) should consider parallel investment facilitation measures "to make up for" the role played by offshore financial centers as global investment hubs*
- *...the international community should also take into account the potential economic impact of tax avoidance countermeasures on some developing OFCs that have adopted development strategies based on financial services*
- *...a formally agreed list of acceptable uses of offshore investment hubs – e.g. as neutral ground for cross-border mergers or joint ventures – could be a starting point for international action (see also WIR13); policymakers should consider whether tax benefits are an essential ingredient for such applications*

3. National investment policymakers should consider options at the entry and establishment level to prevent tax avoidance

- *...investment authorities may require information from prospective investors (disclosure of financial information and planning, country-by-country reporting,...)*
- *...investment authorities may apply stricter tax conditions and rules for entry and establishment in specific situations, e.g. privatization of state assets, extractive industries, investments related to government procurement,...*
- *...promoting adherence to corporate social responsibility (CSR) and governance standards may be an effective tool to foster good tax payer behavior and transparent reporting on fiscal contributions*

4. Investment promotion and facilitation options should be leveraged to tackle tax avoidance

- *...FDI incentives should not constitute additional options for tax avoidance; they should be specific and time-bound, and ideally geared towards promoting investment in sustainable development (see also WIR14)*
- *...conversely, FDI incentives can be used to remove the motivation to shift profits, e.g. tax breaks on reinvested earnings, tax incentives on capital goods (e.g. roll-over relief),...*
- *...incentives can be made conditional upon pre-defined or agreed tax behavior and on disclosure*
- *...tax incentives and award processes should be made more transparent, integrated into the normal budgetary process, and subject to greater accountability*
- *... investment authorities should coordinate with tax authorities, promote good taxpayer service and foster constructive and transparent dialogue between tax authorities and taxpayers*

5. Any national or international action to tackle tax avoidance should consider interdependencies with international investment agreements (IIAs)

- *...the attractiveness of the major global investment hubs that are at the heart of most tax avoidance schemes relies on a combination of networks of both IIAs and double taxation treaties (as well as domestic company law and tax rules)*
- *...as tax avoidance countermeasures can be interpreted as a 'change for the worse' for investors, reducing the value of the investment, or applied selectively on foreign investors, IIAs may pose limits to policy space*
- *...in negotiating IIAs policymakers may wish to safeguard policy space on tax issues and strengthen denial of benefits provisions*

6. International investment agreements (IIAs) and double taxation treaties (DTTs) are both part of countries' investment facilitation toolkit; these instruments should be aligned

- *...strategically: just like countries need to consider whether and how to engage in IIAs, the same considerations apply to DTTs ("to sign or not to sign, and with whom...")*
- *...substantively: e.g. avoid situations where the broad definition of investment in IIAs and the narrow definition of permanent establishments in DTTs provides investors with the option to start a dispute settlement case against a country where it is not liable for tax*
- *...policy action on DTTs needs to consider impacts on and from the international investment policy regime*
- *Given the importance of regional investment flows (and competition for investment which often occurs at regional levels), regional cooperation approaches covering tax avoidance may also be fruitful*
- *...both IIAs and DTTs mostly aim to address weaknesses in countries' regulatory and institutional environment for investment and should be accompanied by development assistance to reduce those weaknesses (e.g. technical assistance to investment and tax authorities)*

- 7. Policymakers should recognize the role in cross-border corporate tax avoidance played by different types of offshore investment hubs, as well as by home and host countries, clarify shared responsibility and take comprehensive action**
- *...national and international action on offshore investment links should address both Tax Havens and SPEs in other countries through which significant international investments are routed*
 - *...as cross-border corporate tax avoidance and the routing of investment through offshore hubs are systemic issues, policymakers in non-OFC jurisdictions should address features in their own tax rules that support or incentivize the use of offshore hubs by their own MNEs abroad or by foreign investors*
- 8. Tax avoidance and transparency in international financial transactions are global issues that require a multilateral approach, with adequate developing-country participation**
- *...effective action against tax avoidance requires international cooperation; a commitment to strengthen the United Nations committee of experts on taxation is instrumental to a full participatory approach*
 - *...international cooperation is also fundamental to prevent harmful tax competition; competition to attract investment should not become disguised tax competition*
 - *...given the growing importance of tax avoidance in developing countries and the proportionately greater impact of tax avoidance on their budgets, they should be adequately represented in discussions on international action on tax avoidance*
- 9. Policymakers should consider the importance of both international investment and tax revenues for sustainable development financing, and the specific features of tax avoidance in developing countries**
- *...given the lower tax collection capabilities of developing countries, rulemaking at the international level should take into account transition or special and differential treatment options, as well as technical assistance to deal with increased complexity*
 - *...some tax avoidance schemes are comparatively more relevant for developing countries; some countermeasures are more difficult to implement in developing countries; and the role of incentives is often greater in developing countries, with implications for the effectiveness of some countermeasures: one size does not fit all*
 - *...DTTs are often aimed at reducing or removing an effective means to collect taxes (withholding taxes) in developing countries that may have limited alternative tax collection capabilities; international measures related to DTTs should not hurt developing countries*
- 10. Investment and ownership information is key to analyzing tax avoidance schemes and should be prioritized, together with other tools to enable anti-avoidance measures and to foster good tax behavior**
- *...collection of FDI data at macro-level (BoP-country) to be improved*
 - *...transparency and disclosure of investment and ownership information at micro-level (firm) needed*
 - *...sharing of country-by-country reporting information should effectively facilitate host country tax collection and take into account lower collection capabilities in some developing economies*
 - *...strengthen documentation of fiscal behavior in companies' integrated reporting requirements*

REFERENCES (including bibliographic references for Annexes)

ActionAid (2013). How Tax Havens plunder the poor.

Ali Abbas SM, Klemm A, Bedi S and Park J (2012). A partial race to the bottom: Corporate Tax developments in Emerging and Developing Economies. IMF Working Papers. 12/28, International Monetary Fund.

Altomonte C, Aquilante T, Békés G and Ottaviano GIP (2013). Internationalization and innovation of firms: evidence and policy. *Economic Policy*, vol. 28 (76), pages 663 - 700.

Atisophon V, Bueren J, De Paepe G, Garroway C and Stijns JP (2011). Revisiting MDG cost estimates from a domestic resource mobilisation perspective. OECD Development Center Working Papers 306, OECD Publishing.

Baker RW (2005). *Capitalism's Achilles heel: Dirty money and how to renew the free-market system*. John Wiley & Sons Ltd.

Bank of Zambia (2014). Foreign private investment and investor perceptions in Zambia. Bank of Zambia Report.

Barefoot KB (2012). U.S. multinational companies. Operations of U.S. parents and their foreign affiliates in 2010. U.S. Bureau of Economic Analysis.

Beer S and Loeprick J (2014). Profit shifting: drivers of transfer (mis)pricing and the potential of countermeasures. *International Tax and Public Finance*, pages 1–26.

Chen D and Mintz J (2013). 2013 Annual global tax competitiveness ranking: corporate tax policy at a crossroads. SPP Research Papers, vol. 6 (35).

Christian Aid (2008). Death and taxes: The true toll of tax dodging.

Christian Aid (2009). False profits: Robbing the poor to keep the rich tax-free.

Christian Aid (2013). Invested interests: The UK's overseas territories hidden role in Developing Countries.

Clausing KA (2009). Multinational firm tax avoidance and tax policy. *National Tax Journal*, vol. 65, pages 703 - 725.

Cobham A (2005). Tax evasion, tax avoidance and development finance. QEH Working Paper Series – QEHWPS129. Queen Elizabeth House, University of Oxford.

Cobham A and Loretz S (2014). International distribution of the corporate tax base: Impact of different apportionment factors under unitary taxation. ICTD Working Paper.

Concorde (2013). Global financial flows, aid and development.

Deloitte (2013). Global survey of R&D tax incentives.

Dharmapala D and Hines JR (2006). Which countries become Tax Havens? NBER Working Paper No. 12802.

Dharmapala D and Riedel N (2013). Earnings shocks and tax-motivated income-shifting: Evidence from European multinationals. *Journal of Public Economics*. Elsevier, vol. 97(C), pages 95-107.

Dischinger M and Riedel N (2011). Corporate taxes and the location of intangible assets within multinational firms. *Journal of Public Economics*, 95(7-8), 691–707.

Eden L (2014). The arm's length standard: making it work in a 21st century world of multinationals and nation states. In: Pogge T and Mehta K, eds. *Global Tax Fairness*, Oxford University Press, forthcoming.

Evers L and Spengel C (2014). Effective tax rates under IP tax planning. ZEW Discussion Paper.

Fuest C and Riedel N (2009). Tax evasion, tax avoidance and tax expenditures in developing countries: A review of the existing literature. Report prepared for the UK Department for International Development (DFID).

Fuest C and Riedel N (2010). Tax evasion and tax avoidance in Developing Countries: The role of international profit shifting. Working Papers 10/12, Oxford University Center for Business Taxation.

Fuest C, Maffini G and Riedel N (2012). What determines corporate tax payments in developing countries? Evidence from firm panel data. ESRC Working Paper.

Fuest C, Hebous S and Riedel N (2013a). International debt shifting and multinational firms in developing economies. *Economics Letters*. Elsevier, vol. 113(2), pages 135-138.

Fuest C, Spengel C, Finke K, Heckemeyer J and Nusser H (2013b). Profit shifting and "aggressive" tax planning by multinational firms: Issues and options for reform. Discussion Paper No. 13-04. Center for European Economic Research.

Global Financial Integrity (2010). The implied tax revenues loss from trade mispricing.

Gravelle JG (2013). Tax Havens: International tax avoidance and evasion. Congressional Research Service.

Guerriero M (2012). The labour share of income around the world. Evidence from a panel dataset. Working Paper.

Haberly D and Wojcik D (2014). Tax Havens and the production of offshore FDI: An empirical analysis. *Journal of Economic Geography*.

Hines JR and Rice EM (1994). Fiscal paradise: Foreign Tax Havens and American business. *The Quarterly Journal of Economics*, vol. 109, no. 1: 149-182.

IMF, OECD, UN and World Bank (2011). Supporting the development of more effective tax systems. Report to the G-20 development working group.

IMF (2014). Spillovers in international corporate taxation. IMF Policy Paper.

Markle KS and Shackelford DA (2012). Cross-country comparisons of corporate income taxes. *National Tax Journal*, vol. 65 (3), pages 493-528.

Markle KS and Shackelford DA (2013). The impact of headquarter and subsidiary locations on multinationals' effective tax rates. NBER Working Paper No.19621.

OECD (1998). Harmful tax competition: An emerging global issue. OECD Publishing.

OECD (2000). Towards global tax co-operation. Report to the 2000 ministerial council meeting and recommendations by the committee on fiscal affairs.

OECD (2006). Understanding National Accounts.

OECD (2013a). Addressing base erosion and profit shifting. OECD Publishing. <http://dx.doi.org/10.1787/9789264192744-en>

OECD (2013b). Action plan on base erosion and profit shifting. OECD Publishing. <http://dx.doi.org/10.1787/9789264202719-en>

Owens J (2012a). Tax competition: to welcome or not. David Tillinghurst Lecture. New York State University.

Owens J (2012b). The effect of tax on foreign direct investment. *Tax Notes International*, December.

Owens J (2013). The role of tax administrations in the current political climate. *Bulletin for International Taxation*, March, pages 156-160.

Oxfam (2000). Tax Havens: Releasing the hidden billions for poverty eradication.

Oxfam (2009). See <http://www.oxfam.org/en/pressroom/pressrelease/2009-03-13/tax-haven-could-deliver-120bn-year-fight-poverty> (accessed 7 April 2014)

Oxfam (2011). Owing development: Taxation to fight poverty. Oxfam research report.

Oxfam (2013). Fixing the cracks in tax: A plan of action.

Prichard W, Cobham A and Goodall A (2014). The ICTD Government Revenue Dataset. ICTD Working Paper.

PwC (2008). Total tax contribution: How much in taxes do Indian companies really pay?

PwC (2013a). Total tax contribution (South Africa): A closer look at the value created by large companies for the fiscus in the form of taxes.

PwC (2013b). Tax transparency and country-by-country reporting. An ever changing landscape.

PwC (2014). Worldwide tax summaries: Corporate taxes. See <http://taxsummaries.pwc.com/uk/taxsummaries/wwts.nsf/ID/PPAA-85RDKF> (accessed 7 April 2014)

Tax Justice Network (2007). Identifying Tax Havens and offshore finance centers.

Tax Justice Network (2012). The price of offshore revisited.

Tattawasart O (2011). Toward FATS and beyond: the case of Thailand. *Proceedings of the IFC Conference on "Initiatives to address data gaps revealed by the financial crisis"*, vol. 34, pages 488 - 502.

UN (2011). Model double taxation convention between Developed and Developing Countries. United Nations Publication. Sales No. 12-23972. New York.

UNCTAD (2014a). *Trade and Development Report 2014. Global governance and policy space for development*. United Nations publication. Sales No. E.14.II.D.4. New York and Geneva.

UNCTAD (1992). *World Investment Report 1992. Transnational corporations as engines of growth*. United Nations publication. Sales No. E.92.II.A.19. New York and Geneva.

UNCTAD (2012). *World Investment Report 2012. Toward a new generation of Investment Policies*. United Nations publication. Sales No. E.12.II.D.3. New York and Geneva.

UNCTAD (2013). *World Investment Report 2013. Global value chains: Investment and trade for development*. United Nations publication. Sales No. E.13.II.D.5. New York and Geneva.

UNCTAD (2014a). *World Investment Report 2014. Investing in the SDGs: an action plan*. United Nations publication. Sales No. E.14.II.D.1. New York and Geneva.

UNCTAD (2014b). *Trade and Development Report 2014. Global governance and policy space for development*. United Nations publication. Sales No. E.14.II.D.4. New York and Geneva.

UN/ITC (2013). Improper use of tax treaties, tax avoidance and tax evasion.

U.S. Government Accountability Office (2008). Large U.S. corporations and federal contractors with subsidiaries in Jurisdictions listed as Tax Havens or financial privacy Jurisdictions.

World Bank (2013). Financing for development post-2015. Washington, DC: World Bank Group.

World Bank and PwC (2015). Paying Taxes 2015.

Yorgason DR (2009). Collection of data on income and other taxes in surveys of U.S. multinational enterprises. U.S. Bureau of Economic Analysis.