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The impact of tax treaties on revenue collection:

A case study of developing and least developed countries

JUNE 2018

Abebi teaches in a primary school with no electricity or water and with no working toilet. Children often miss school because they do not have any food and are instead taken out by their parents to farm. Others do not make the journey due to lack of public transport and a lack of support from the government.

“Mainly the children I teach are from villages. These families are not at all wealthy. They are just managing. “We don’t have anything like electricity or water in the school. At times we leave before 7:00am and we trek a long distance for water.” “Even children that are in school can’t learn well because there are not many materials. “We don’t have enough school books, pens or paper. Sometimes children will not write anything in the class because they don’t have a pencil or book. At times, we’ll be teaching without anything unless we improvise. “In my own class, if you look at the back, you see damaged chairs and tables.” “The government keeps saying there is no money. They say that some people are not paying their taxes.” “The big foreign companies coming to Nigeria should be paying their tax so that our government will have money to do all those things that they’re supposed to do for schools, because so many children in the village can’t come to school’.

Executive summary

- Foreign direct investment (FDI) by multinational enterprises is given substantial weight by an expanding number of developing countries. Many of them have decided to sign tax treaties (or double taxation agreements) with a number of other – usually richer - countries in the hope that it would attract more investment from these countries. However, tax treaties strongly impact their tax revenues – often at a scale that might not have been intended or foreseen when they were signed. These tax treaties can increase investment and thus the tax base, but they often reduce the applicable tax rates: we focus on the effects of this latter aspect.

- We provide illustrative estimates of the potential costs of tax treaties in developing countries – i.e. if all else remains unchanged, what additional tax revenues the developing countries could have if the standard tax rate applied rather than the tax treaty rate. Due to data restrictions, we are only able to calculate approximate estimates, with reasons pulling the real effects in both directions. On the one hand, we assume that investments are not influenced by the tax treaties and in this important respect we provide upper-bound estimates. On the other hand, we examine only some taxes for some countries and in this sense we provide lower-bound estimates. We estimate the effects of only two types of losses generated by tax treaties, namely, lower withholding taxes on outgoing dividend and interest payments. We estimate the effects for 14 developing countries (for dividends; 11 for interest payments) with information from the ActionAid Tax Treaties Dataset and the International Monetary Fund's foreign direct investment data.

- Within this group of countries, we estimate the highest potential tax revenue losses for the Philippines (509 million USD) and Pakistan (130 million USD). Relative to their GDP, we estimate that the potential losses are highest for the Philippines and Mongolia (0.17% of GDP for both).

- We find that investor countries Japan, the Netherlands, Switzerland, and Singapore are together responsible for more than half of the estimated losses. The majority of the estimated losses is due to dividends, only around 5% is due to interest payments. We discuss the limitations of these illustrative estimates and how future research could improve their quality as well as coverage.

- We identify four top recommendations for governments of developing countries. First, they should collect, and offer access to, data about the broad range of tax avoidance facilitated by tax treaties. Second, they should consider using our, and other similar, results to identify treaties that would benefit from reviews. Third, governments should consider the UN model treaty tax rates as minimum standards. Fourth, they should carefully consider whether and under what conditions to sign the OECD's Multilateral Instrument.

1. Introduction

Foreign direct investment (FDI) by multinational enterprises is given substantial weight by an expanding number of developing countries. Many of them have decided to sign tax treaties (or double taxation agreements) with a number of other – usually richer - countries in the hope that it would attract more investment from these countries. However, tax treaties strongly impact their tax revenues – often at a scale that might not have been intended or foreseen when they were signed.

It is not often that ActionAid, a leading international non-governmental organisation, agrees with the International Monetary Fund (IMF), the inter-governmental financial organisation with substantial influence over developing and crisis countries' economic policies. But it does seem to be the case on the issue of tax revenue effects of tax treaties on developing countries. ActionAid (2016, p. 2) stated in its *Mistreated* report that "The era of outdated and unscrutinised tax treaties that create opportunities for multinational tax avoidance must come to an end." Similarly, IMF (2014, p. 24) stated in its policy paper on spillovers in international corporate taxation that "'Treaty shopping'—the use of tax treaty networks to reduce tax payments—is a major issue for many developing countries, which would be well-advised to sign treaties only with considerable caution." Furthermore, IMF (2014, p. 27) estimates tax revenue losses of 1.6 billion US dollars in 2010 for non-OECD countries that had tax treaties with the United States, while ActionAid (2016, p. 4) estimated losses for Bangladesh and stated more generally that, "on a global scale, just two rules in tax treaties – dividend and interest payment rules – cost developing countries billions of dollars each year."

In this report we estimate how much the revenue effects of tax treaties might be for a number of developing. We consider treaties between developing countries and many investor countries. We thus improve on the above cited findings of both ActionAid (2016) and IMF (2014) as well as of the few other existing studies such as those by McGauran (2013) and Weyzig (2013), both of which related only to the Netherlands as the investor country. Indeed, for the first time we provide estimates of revenue effects for a multiple of both developing and investor countries. We would like to provide illustrative estimates of the potential tax revenue impact of tax treaties in developing countries – all else unchanged, what additional tax revenues the developing countries could have if the standard tax rate, rather than the tax treaty one, applied. But due to data restrictions, we can only estimate the effects of only two types of losses generated by tax treaties, namely, lower withholding taxes on outgoing dividend and interest payments. For these two we quantify the potential revenue losses of tax treaties and attribute them to specific developing and investor countries.

We briefly preview the main results. We estimate the effects for 14 developing countries (for dividends; and 11 for interest payments) with available information from both the ActionAid Tax Treaties Dataset and the IMF's FDI data. Within this group of countries, we estimate the highest potential tax revenue losses for the Philippines (509 million USD) and Pakistan (130 million USD). Relative to their GDP, we estimate that the potential losses among the countries examined, are highest for the Philippines and Mongolia (0.17% of GDP for both). We find that Japan, the Netherlands, Switzerland, and Singapore are the surveyed investor countries which together are responsible for more than half of all the estimated losses. The majority of the estimated losses is due to dividends, only around 5% is due to interest payments.

Developing

The list of the 14 developing countries for which there are available data and for which we estimate the revenue effects:

Bangladesh
Cape Verde
Ghana
Mongolia
Mozambique
Nigeria
Pakistan
Philippines
Rwanda
Senegal
Sri Lanka
Tanzania
Uganda
Zambia

Investing

The list of 77 investor countries (both developing and developed) with which the 14 developing countries have tax treaties:

Australia
Austria
Bahrain
Bangladesh
Belarus
Belgium
Bosnia and Herzegovina
Brazil
Brunei Darussalam
Bulgaria
Canada
Czech Republic
Denmark
Egypt
Finland
France
Germany
Hungary
China
India
Indonesia
Iran
Ireland
Israel
Italy
Japan
Jordan
Kazakhstan
South Korea
Kuwait
Kyrgyz Republic
Lebanon
Libya
Luxembourg
Macau
Macedonia
Malaisia
Malta
Mauritius
Montenegro
Morocco
Nepal
Netherlands
New Zealand
Nigeria
Norway
Oman
Pakistan
Philippines
Poland
Portuga
Qatar
Romania
Russia
Saudi Arabia
Serbia
Seychelles
Singapore
Slovak Republic
South Africa
Spain
Sri Lanka
Sweden
Switzerland
Syria
Taiwan
Thailand
Tunisia
Turkey
Turkmenistan
Ukraine
United Arab Emirates
United Kingdom
United States
Uzbekistan
Vietnam
Yemen

This report can be read jointly with the other related reports. First, the technical report "Estimating the Revenue Effects of Tax Treaties in Developing Countries", associated with this report, contains all the technical details regarding the presented estimates, including all the assumptions, limitations and related literature. Furthermore, since this is a follow-up report to the *Mistreated* report by ActionAid (2016), we refer to that report for detail description of some of the issues, for example: why are some provisions in the tax treaties with developing countries problematic, why are developing countries more vulnerable, and which tax treaties are very restrictive.

The rest of the report is structured in the following way: first, we describe how specific provisions in tax treaties might lead to lower tax revenues of developing countries' governments; second, we quantify by how much tax treaty provisions for dividends and interest payments might reduce tax revenue in 14 developing countries; and third, in conclusion, we discuss the limitations of these illustrative estimates and how future research could improve their quality as well as coverage.

Orji is an unpaid nurse and midwife in a local hospital with no water source, no electricity and no government funding. She teaches women how to care for themselves during pregnancy, but being so under-resourced and having no other hospital with medicine nearby, means many women deliver their babies in dangerous circumstances, sometimes on the side of the road. Often women die in the process.

Orji's salary was previously paid for under a government scheme to tackle poverty. The scheme was scrapped in 2015 by the incoming government, partly because of Nigeria's dwindling public funds. This is money that could be raised through big companies paying their fair share of tax.

According to the African Union, tax havens are a 'major pull factor' in illicit financial flows which are estimated to drain more than $50 billion a year in capital out of Africa. Nearly a third of these flows are attributed to just one country, Nigeria, a country with one of the highest maternal mortality rates in the world.

PHOTO: ACTIONAID

2. How tax treaties affect tax revenues in developing countries

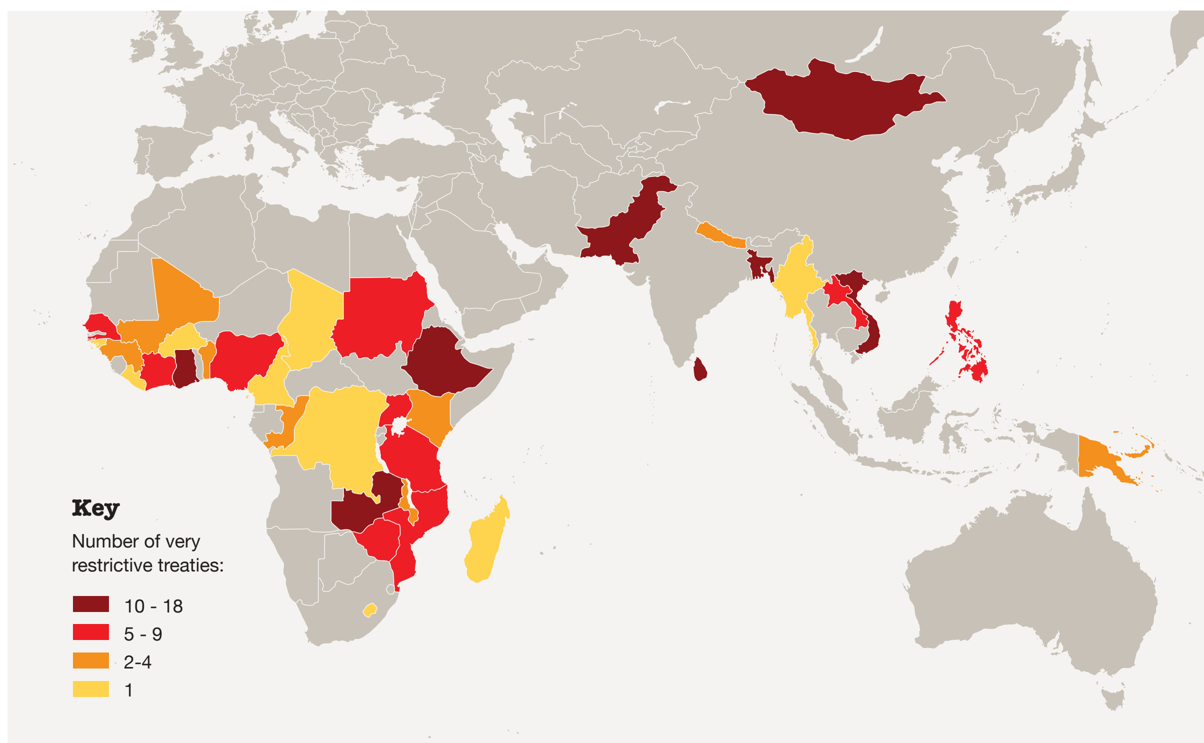
Revenue effects of tax treaties can stem from various types of taxes. ActionAid (2016) identified and described three main areas:

1. **Profit or corporate income tax.**
2. **Capital gains tax.**
3. **Withholding taxes for royalties and service fees, dividend and interest payments.**

In this report, we focus on withholding taxes and we estimate revenue effects of dividend and interest withholding taxes, because this is where relevant data is available. Since there are no comparable data available for royalties and service fees, we were not able to estimate the revenue effects of withholding taxes for these kinds of payment.

Our empirical methodological approach builds on the few existing studies and the ActionAid Tax Treaties Dataset introduced by Hearson (2016). In addition to reviewing the tax treaties with regard to how restrictive they are (Map 1), the data set includes information on dividend and interest withholding taxes that we use for our estimates.

Map 1: **Number of very restrictive tax treaties for countries included in the ActionAid Tax Treaties Dataset**



In short, we estimate revenue losses, similarly to ActionAid (2016) for Bangladesh, by taking the total dividends paid and interest payments made from each developing country to foreign shareholders in the latest year (mostly 2015) and applying to that the FDI share of each treaty partner, then calculating the effect of treaty caps on the domestic dividend or interest payment withholding tax rate.

The technical report "Estimating the Revenue Effects of Tax Treaties in Developing Countries", associated with this policy report, contains all the technical details regarding the presented estimates, including all the assumptions, limitations and related literature. We highlight some of the most important limitations and assumptions in the box below, but refer for fuller exposition to the technical report.

Selected assumptions and limitations of the methodology, described in the technical report

Assumptions:

- we assume that FDI is not influenced by the tax treaties
- FDI income is distributed similarly to how FDI stock is distributed across countries

Limitations:

- only effects of tax treaty provisions on dividends and interest payments (no corporate income tax or capital gains or other taxes)
- only 14 developing countries for which there is information in each of the three main sources: (i) tax treaty withholding rates in the ActionAid Tax Treaties Dataset, (ii) domestic withholding tax rates by either PwC (2017), EY (2017), or Deloitte (2017), (iii) FDI stock and income data in the IMF's Balance of Payments and Coordinated Direct Investment Survey data.

School children learn outside classrooms due to shortage of classroom blocks at M'bwetu Primary School in Malawi's capital, Lilongwe. ActionAid is on a campaign to make big multinational companies, which dodge taxes despite making huge profits in the host countries they operate in, realise that they need to pay their taxes because Corporate tax dodging denies governments the funds desperately needed to provide basic services to their people such as better education and health facilities which eventually can allow poor countries to pull themselves out of poverty.

PHOTO: ACTIONAID

3. Results - how much developing countries lose

The results are reported in Table 2 alongside with the relative size of the loss to the GDP of the respective countries. The year for which the calculation was performed is also indicated in the table. The calculations were done for the most recent year available. As can be seen the biggest loss of withholding tax on outgoing interest and dividend payments in absolute terms is endured by the Philippines (509 million USD) and Pakistan (130 million USD). Considering the relative indicator i.e. the size of the loss relative to GDP of the given country, the biggest loss attributable to DTA is endured by Philippines and Mongolia (0.17% for both).

The results from Table 2 are presented as a graph in Figure 1 and as Maps 2 and 3.

As Table 2 highlights, the estimated dividend losses are much higher than those related to interest. The majority of the estimated losses is due to dividends, only around 5% is due to interest.

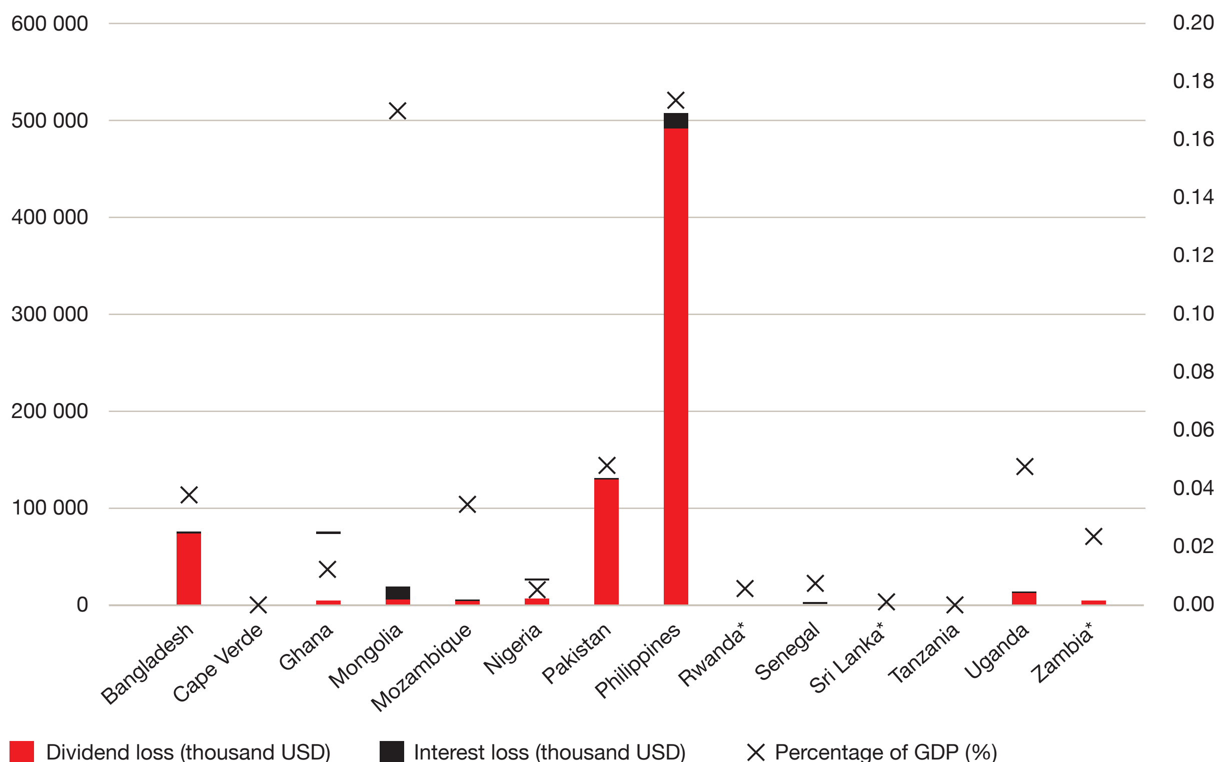
The estimates seem to be comparable in size with the existing literature on revenue impact of tax treaties. McGauran & Fernandez (2013) estimate dividend and interest tax revenue losses of 770 million euros in 2011 for developing countries as a consequence of lower withholding tax rates in the developing countries' tax treaties with the Netherlands. The International Monetary Fund (IMF, 2014, p. 27) estimates tax revenue loss of 1.6 billion US dollars in 2010 for non-OECD countries that had tax treaties with the United States. Our estimates are of similar order, to within hundreds of millions USD. We estimate potential tax losses of Bangladesh in 2015 related to dividends at 37 million USD, which is lower than the estimate of 85 million USD by ActionAid (2016) for 2013. The difference is mostly explained by the fact that the total dividends paid from Bangladesh fell by a quarter between 2013 and 2015.

Table 1: Potential revenue loss estimates due to dividends and interests (thousand USD)

Country	Year	Dividend loss	Interest loss	Combined loss	Percentage of GDP (%)
Bangladesh	2015	74736	55	74791	0.03834
Cape Verde	2015	0	7	7	0.00044
Ghana	2014	4992	0	4992	0.01293
Mongolia	2015	7117	12848	19965	0.17004
Mozambique	2015	5103	81	5183	0.03503
Nigeria	2015	27140	131	27271	0.00567
Pakistan	2015	130158	303	130462	0.04813
Philippines	2015	492796	16228	509024	0.17386
Rwanda*	2015	495	-	495	0.00599
Senegal	2014	945	227	1172	0.00766
Sri Lanka*	2015	1314	-	1314	0.00163
Tanzania	2013	11	0	11	0.00003
Uganda	2015	13021	218	13239	0.04753
Zambia*	2015	5090	-	5090	0.02406

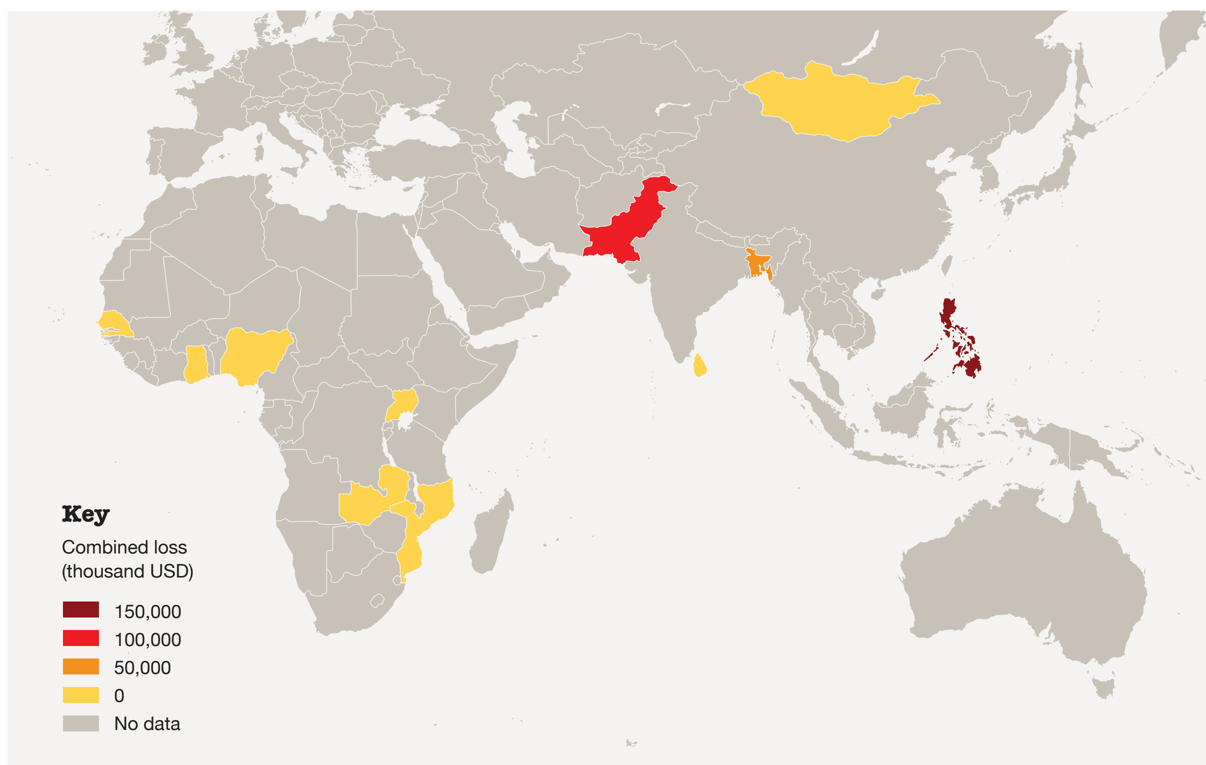
Source: Authors.
Notes: Asterisk imply that we make the estimates only on the basis of dividends data as interest is not reported, as indicated in Table 1.

Figure 1: Potential revenue loss estimates due to dividends and interest payments



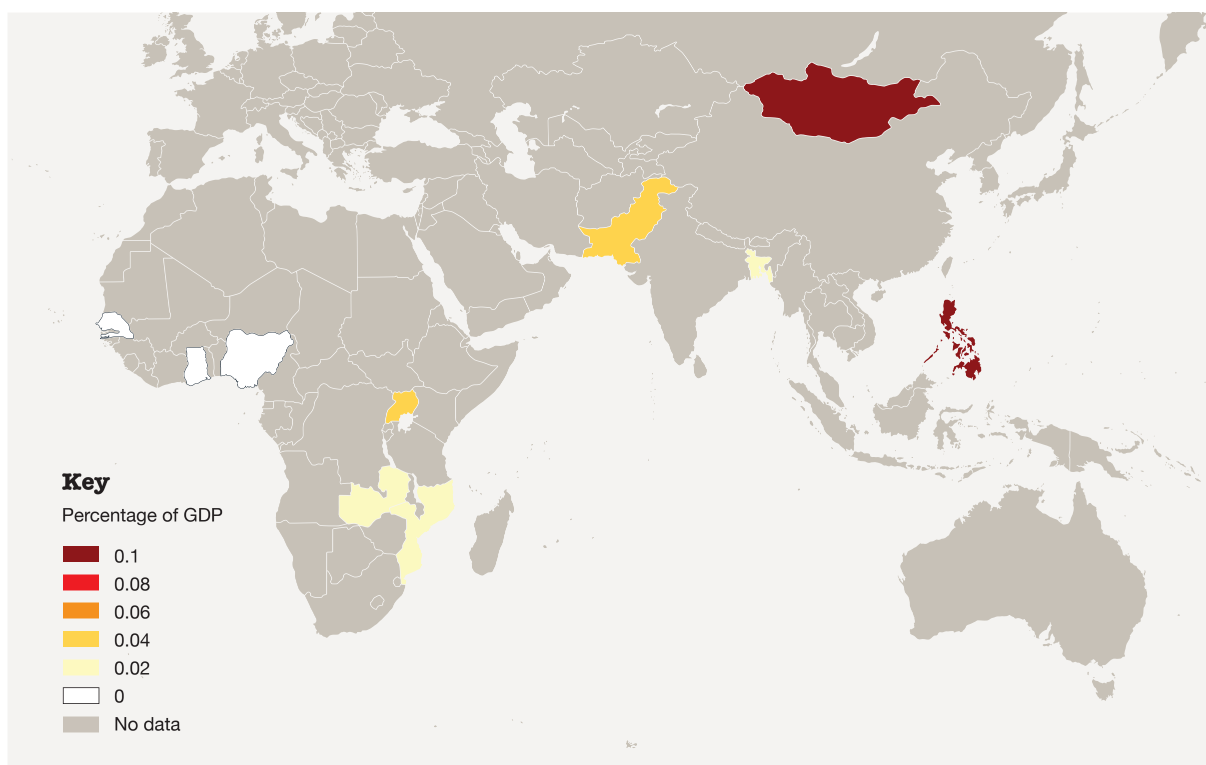
Source: Authors.
Notes: Asterisk imply that we make the estimates only on the basis of dividends data as interest is not reported, as indicated in Table 1.

Map 2: Potential revenue loss estimates due to combination of dividends and interest payments (thousand USD)



Source: Authors.

Map 3: Potential revenue loss estimates due to combination of dividends and interest payments (as % of GDP)



Source: Authors.

In Table 2 we show which investor countries cause most of the potential revenue losses shown in Table 2. Naturally, some of the biggest investors are present in this table as well. Not surprisingly, some of the biggest investors in Philippines, including Japan, play an important role here. Japan, the Netherlands, Switzerland, and the United States are the investor countries together responsible for more than half of all the estimated potential losses.

Table 2: Ten investor countries associated with the highest potential revenue loss estimates in 14 selected developing countries due to dividends and interests, by (thousand USD)

Country	Dividend lost	Interest loss	Combined loss
Japan	151 960	4 144	156 104
Netherlands	117 841	2 948	120 789
Switzerland	79 547	2 033	81 579
United States	70 576	2 503	73 078
Singapore	51 404	5 594	56 998
Korea, Republic of	44 108	1 655	45 764
China, P.R.: Mainland	35 722	3 183	38 904
United Kingdom	21 553	3 566	25 119
Saudi Arabia	16 772	27	16 799
Mauritius	15 313	147	15 461

Source: Authors.

3. Conclusions

We estimate that the annual interest and dividend withholding tax revenue losses associated with tax treaties reach hundreds of million dollars for two countries: the Philippines (509 million USD) and Pakistan (130 million USD). Considering the relative indicator, i.e. the size of the loss relative to GDP of the given country, the biggest loss attributable to DTA is endured by the Philippines and Mongolia (0.17% for both). In this paper, we have outlined the limitations of our methodological approach and thus of these estimated results. In addition to the assumptions needed for our empirical estimates, a further restriction is the data availability. The data limit us in two important aspects. First, we estimate revenue effects of only selected FDI incomes, dividends and interests, for which there is data available. We thus do not estimate tax revenue effects of other FDI incomes. Corporate income taxes and capital gains taxes also fall outside of the scope of this paper. It follows naturally that if these other taxes had been included in the analysis, the estimated potential tax revenue losses would have been higher. Second, data and other required information is available for up to 14 developing countries and their investor countries. This is far more than the existing one-country studies, but less than what we hoped for from our aggregate IMF data-based approach. There are thus four conclusions with implications for next steps in both policy and future research.

First, the available data indeed restricts what we can currently learn about the impact of tax treaties on revenues in developing countries. There are data gaps in both IMF sources and the easily accessible and comparable sources of domestic tax rates. Data only allows for calculating losses related to dividend and

interest payments resulting from lower withholding taxes in treaties. However, treaties are also known to lead to considerable losses through avoiding capital gains tax and profit shifting using royalties, management fees or other artificial costs in combination with treaty shopping and tax haven subsidiaries. In this, our estimate is conservative, since it includes only some of the aspects of tax treaties. If the estimate included other aspects of tax treaties used for tax avoidance, we would expect higher estimates of tax revenue losses. Policy makers and researchers should work towards closing these gaps and make more rigorous research with a better country coverage possible.

Second, our new results and the limited existing evidence suggest that the estimated impact varies a lot across countries and, at least for some countries, the potential impact on revenues is substantial, both in dollar terms and relative to their GDP. A case in point is the Philippines with estimated revenue losses of 509 million USD, or 0.17% of its GDP. Third, we hope that our detailed results can be used to highlight specific tax treaties in need of attention – and maybe revision – by the respective governments. This is relevant especially for those cases where the estimated losses are relatively high. In this respect it is encouraging that in recent years, some developing countries have moved on to renegotiate or terminate their tax treaties. A case in point is Mongolia, which around 2011 decided to cancel tax treaties with the Netherlands, Luxemburg, Kuwait and the United Arab Emirates arguably because of their high costs for government revenues (Jargalsaikhan, 2016).

Fourth, we briefly discuss implications for the design of tax treaties. Currently most treaties follow either the OECD or the UN model treaty. The UN model tax treaty allows developing countries to maintain significantly more taxing rights than the OECD model (ActionAid, 2016). Of course, we encourage the developing countries' governments to negotiate the tax treaty provisions in their best interests and the suggested rates in the UN model treaty should be considered minimum standards. Indeed, for FDI that does not flow in through conduit countries, the main recommendation, directly related to our results, is to renegotiate the tax treaty provisions, especially the withholding tax rates related to interest and dividend payments associated with high revenue costs with non-corresponding benefits. To guard against the adverse effects of conduit FDI, countries should aim to implement effective anti-abuse measures (for example, the 2015 Action 6 of the OECD's BEPS on preventing the granting of treaty benefits in inappropriate circumstances, might be a case in point). A further option for lower income countries, that so far have not joined it, would be to join the OECD's Multilateral Instrument. This convention to implement tax treaty related measures to prevent base erosion and profit shifting was signed by the first 70 countries in June 2017. Lower income countries should carefully consider if it is in their interest to sign it at this stage and, if they are inclined to do so, then consider making some adjustments (such as not opting in on mandatory arbitration) before signing.

Actionaid is calling for the governments of developing countries to;

1. *Collect, and offer access to, data about the broad range of tax avoidance facilitated by tax treaties.*
2. *Use our, and other similar, results to identify treaties that would benefit from reviews.*
3. *Carefully consider whether and under what conditions to sign the OECD's Multilateral Instrument.*
4. *Urgently reconsider the treaties that restrict the tax rights of low and lower-middle income countries most.*
5. *Subject treaty negotiation, ratification and impact assessments to far greater public scrutiny.*
6. *Take a pro-development approach to the negotiation of tax treaties by adopting the UN model tax treaty as the minimum standard.*

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ActionAid is a global movement of people working together to achieve greater human rights for all and defeat poverty. We believe people in poverty have the power within them to create change for themselves, their families and communities. ActionAid is a catalyst for that change.

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JUNE 2018