

Global Linkages: re-examining the empirical basis of the 2015 tax Spillover analysis



Christian Aid Report 2017 | Part One

Introduction

In 2014, the Department of Finance commissioned a ‘spillover analysis’ of the impact of Ireland’s tax regime on the tax base and tax take of developing economies. This analysis examined the detail of Ireland’s domestic tax laws, and their interaction with double tax treaties and European Union tax law. In almost every case, however, the analysis dismissed any significant negative impact of Ireland’s tax regime on the grounds that economic linkages between Ireland and developing countries are insignificant. This report re-examines the empirical basis that the analysis uses to make these claims, and in particular its claims that stocks and flows of investment and income between Ireland and developing economies are generally insignificant.

Regardless of any international effects of Ireland’s tax regime in theory, the analysis argued, developing countries were unlikely to be affected in practice because flows of investment and services income from their economies into Ireland are small.

Thus on the famous ‘Double Irish’ structure, the analysis argues that: **“the quantitative analysis in chapter 3 of this spillover analysis seems to suggest that the effect of the old residence rules on developing countries was insignificant, and they are unlikely therefore to have given rise to significant negative spillover effects on those developing economies”.**¹

On the impact of Irish tax treaties with developing countries: **“the analysis of income and FDI data (see Part VI) shows that the actual loss of revenue for these countries [on interest payments] seems limited”; and that “the analysis of income and FDI data and trade flows (see Part III and IV) shows that the actual loss of revenue on royalty payments for these countries seems limited”.**²

The findings of this report however, paint a different picture;

- The selection of overseas investment data on which the spillover analysis bases its findings is very limited: it focuses on only 13 countries in only two years - just 4% of the available data on Irish overseas investment into developing countries between the years examined (2009 to 2012). Looking at this larger dataset shows that other countries and years have seen much higher levels of Irish FDI than those shown in the spillover analysis.
- Between **US\$500m and US\$1.6bn** may typically be earned by Irish investors each year from developing countries as interest and dividends on direct investments; and between US\$1.1bn and US\$1.7bn as returns on portfolio investments. These figures are small by global standards; but (even with conservative estimates of their source tax treatment) constitute inflows to Ireland **approximately two to four times the size of the Irish aid budget**, for instance. The tax treatment of this income is worthy of attention.
- Flows of royalties and payments for goods and services from developing countries into Ireland are likely to be larger than these figures, but their fiscal impact cannot currently be assessed because the Irish government is currently required to redact from publication figures for licence fees and royalties exports to all except five individual Asian, African and South American countries (Bermuda, Japan, South Korea, China and Brazil) due to confidentiality provisions in the Statistics Act.
- At an individual country level, any single ‘channel’ of revenue impact from Ireland’s domestic tax regime or tax treaties is likely to be modest, though the cumulative impact of multiple channels may be significant. Nonetheless for some developing countries Irish direct **investment constitutes as much as 3-6% of their entire GDP in some years**, and even single ‘channels’ of impact may be significant. For instance, revenue foregone just on interest and dividend withholding tax (WHT) as a result of tax treaties with Ireland may for such countries constitute 10-15% of those countries’ WHT revenues.
- Foregone tax revenue is also significant as a proportion of Irish aid to some countries. **The revenue foregone by the Zambian government up to 2015 as a result of the Ireland-Zambia tax treaty (since renegotiated), preventing it from levying WHT’s on cross-border interest and that dividends may have been equivalent to 22% to 40% of annual Irish development aid to Zambia since 2013** (though a new and less abusive tax treaty is now in place).
- In 2015, South Africa - a relatively minor recipient of Irish aid but a significant recipient of direct investment through Irish-registered companies – **potentially lost out on WHT revenue over three times the value of the Irish aid it received in 2015 thanks to the Ireland-South Africa tax treaty**. Irish aid flows to these countries may be comparatively small compared to their overall economies; but if the Irish government considers such aid donations to be significant enough to spend Irish taxpayers’ money on them, then it should also consider that revenue loss at a similar

scale as a result of Ireland's domestic tax regime or treaty network, is also significant.

- By focussing on the taxation of income from cross-border investments and services, the spillover analysis entirely ignores at least one major channel of revenue loss for developed and developing countries alike: capital gains on the sale of cross-border investments. This is in contrast to the IMF's Fiscal Spillovers Report, supposedly the inspiration for and thematic starting-point of Ireland's own spillover analysis, which addressed the issue in detail, calling it "a macro-relevant concern for several low-income countries." In 10 of the 12 tax treaties signed by Ireland since 2000 counterpart countries are prevented from taxing the capital gains arising from sales of businesses in their countries, when those businesses are owned and sold through an Irish holding company. Ireland's holding company regime further incentivises such offshore sales by exempting them from Irish capital gains tax too. Revenue losses from routing such offshore sales through Ireland are difficult to quantify since they generally arise from large, irregular one-off sales, but according to examples from other countries cited by the IMF, can be several billion dollars for individual transactions.

Economic Linkages between Ireland & Developing Economies

Economic linkages between countries take many forms. This report, and the spillover analysis, focus on a subset of major economic linkages between businesses in Ireland and in the developing world:

01. Foreign Direct Investment (FDI):

Foreign Direct Investment (FDI): when a company in one country (say, Ireland) owns a significant stake in another company in another country – usually (but not always) defined as owning 10% or more of the shares issued by that target company.³ FDI comes in at least two types: 'equity FDI', where the investment comes in the form of buying shares in the target company; and 'debt FDI', where the parent company also makes loans to the target company. Both shareholdings and loans generate income, which return to the Irish shareholder/lender in the form of dividends and interest respectively. If the Irish tax on the interest is significantly lower than the tax on profits in the country where the investee is based then this can create an incentive to shift profits from that country into Ireland via loans, depriving the target country of tax revenues; Similarly if that country cannot levy a tax called withholding tax (WHT) on the outbound flows of interest – for instance, because it is forbidden by a bilateral tax treaty between Ireland and that country there is also an incentive to shift profits from that country into Ireland, depriving the target country of tax revenues.

02. Portfolio Investment (PI):

When a company or investor in one country (say, Ireland) buys a smaller stake in another company in another country – generally defined as less than 10% of the voting rights - which does not accord it a significant voice in the running of the target company. If FDI effectively represents ownership chains of multinational corporate groups, then PI represents investors buying shares or bonds in foreign companies without acquiring any substantial management influence or voice.

03. Sales of goods and services:

The spillover analysis focuses particularly on the provision of services based on intellectual property owned by Irish companies, resulting in the users of that intellectual property paying a licence fee or royalty fee to the Irish company. Once again, if Ireland's tax regime and tax treaty network reduces or removes the Irish income tax or source-country WHT on that royalty payment, it can constitute an incentive to shift profits out of (higher-tax) developing countries and into (lower-tax) Ireland through the payment of large licence or royalty fees.

I. Data Selectivity

The availability of data on Irish capital stocks/flows to developing countries is hampered by two factors:

- (i) **Data confidentiality:** in official statistics, many governments redact the amounts of FDI to many countries on the grounds that it may identify a particular company or corporate group:

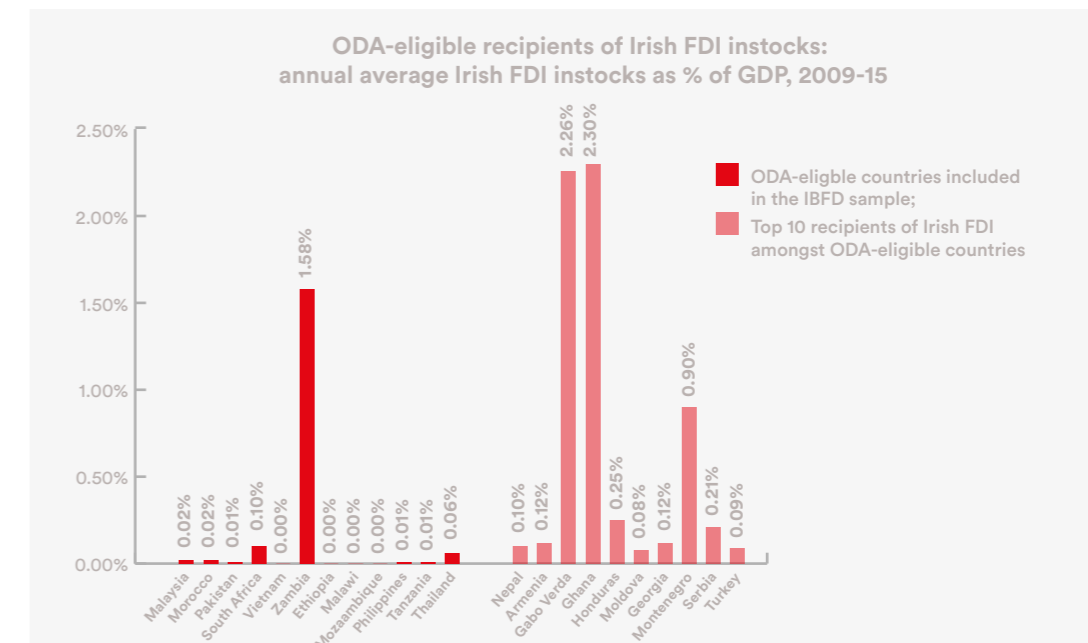
in Ireland's case, usually if FDI from Ireland to a particular country involves five or fewer Irish companies.⁴ Though the overall amount of investment that is redacted may be fairly small relative to Ireland's overall FDI (between 6% and 17% in any one year from 2009 to 2015), it affects data availability for a significant number of individual countries.⁵ From 2009 to 2015, the government redacted the amount of FDI for over half those countries into which Ireland reported FDI, and in some years for over 70% of those countries.⁶ Such redactions are more frequent for FDI to poorer countries, since they receive smaller FDI in stocks that are often provided by just a few companies or groups, making them more easily identifiable. Since 2013, the amount has been redacted for all low-income countries receiving non-zero Irish FDI, and around 60% of middle-income countries receiving non-zero Irish FDI.⁷ The Irish government has the unredacted data, tax treaty (since renegotiated), preventing it⁸ Some of this data can, however, be 'filled in' through counterpart data reported by countries receiving the Irish FDI.

- (ii) **Indirect linkages:** over 40% of all Irish outbound FDI goes to companies in Luxembourg, Bermuda and Jersey;⁹ three small economies whose limited availability of productive investment assets suggests strongly that most of this FDI is in practice destined to other economies but simply routed through corporate vehicles registered in those jurisdictions.¹⁰ Add the Netherlands, a large economy in its own right but also a major conduit for pass-through FDI to other countries¹¹, and these four destinations account for over half of all Irish outbound FDI.¹² All these destination jurisdictions are nonetheless significant intermediaries for FDI into developing economies.¹³ The 'LuxLeaks' documents in 2014 showed in particular how loans between Irish and Luxembourg companies were being used to reduce the global tax liabilities of several Irish-headed multinationals with investments around the world.¹⁴ Unfortunately, however, FDI data cannot 'look through' such structures to determine the 'real' destination of outbound FDI to conduit jurisdictions, meaning that many of those 'real' FDI destinations, including in developing countries, may not appear in Irish FDI statistics at all.

Data availability, then, is limited. Yet the FDI dataset used in the spillover analysis is much smaller still: covering just thirteen low- and middle-income countries (for two of which data is redacted) in just two years (2009 and 2012). Even for the four years 2009-12 from which the spillover analysis could have drawn data, after redactions the spillover analysis uses just 22 FDI data points: constituting just 4% of the data points for low- and middle-income countries available for this time period.¹⁵

Moreover, an analysis of these thirteen countries (Figure 1), shows that most are amongst the lowest developing-country recipients of Irish FDI, in relation to the size of their economies. There are at least thirteen other low- or middle-income countries which receive more FDI, as a proportion of their GDP, than the spillover analysis selection.

Figure 1: Irish FDI instock as % of GDP, 2009-15:



	Income Cat. (2015)	Country	2009	2010	2011	2012	2013	2014	2015
IBFD SAMPLE	UMIC	Malaysia	0.033%	0.039%		0.018%	0.016%	0.014%	
	LMIC	Morocco	0.015%	0.005%	0.008%	0.033%	0.033%	0.035%	0.004%
	LMIC	Pakistan	0.034%	0.031%	0.004%	0.006%	0.000%	0.004%	0.001%
	UMIC	South Africa	0.082%	0.116%	0.099%	0.114%	0.091%	0.111%	0.072%
	LMIC	Vietnam	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
	LMIC	Zambia	1.397%	0.230%	0.626%	0.628%	1.906%	2.819%	3.479%
	LIC	Ethiopia	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
	LIC	Malawi	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
	LIC	Mozambique	0.000%	0.000%	0.000%	0.000%	0.000%	0.001%	0.002%
	LMIC	Philippines	0.005%	-0.002%	0.003%	0.004%	0.058%	0.015%	0.011%
	LIC	Tanzania	0.000%	0.030%	0.025%	0.026%	0.021%	0.000%	0.000%
	UMIC	Thailand	0.075%	0.040%	0.054%	0.061%	0.069%	0.076%	0.072%
HIGHEST IRISH FDI INSTOCKS 2009-15 (LIC/LMIC/UMIC)	LIC	Nepal	0.001%	0.001%	0.001%	0.144%	0.177%	0.217%	0.161%
	LMIC	Armenia	0.130%	0.124%	0.117%	0.114%	0.110%	0.145%	0.122%
	LMIC	Cabo Verde	0.000%	0.000%	0.000%	4.464%	4.452%	3.925%	2.998%
	LMIC	Ghana		0.019%	0.014%	5.658%	3.249%	4.883%	0.000%
	LMIC	Honduras	0.000%	0.205%	0.331%	0.316%	0.317%	0.300%	0.285%
	LMIC	Moldova	0.080%	0.078%	0.066%	0.112%	0.091%	0.067%	0.050%
	LMIC	Ukraine	0.111%	0.102%	0.080%	0.078%	0.039%	0.014%	0.005%
	UMIC	Bulgaria	2.018%	1.876%	1.506%	1.653%	1.677%	1.448%	1.438%
	UMIC	Georgia	0.138%	0.131%	0.107%	0.099%	0.102%	0.106%	0.131%
	UMIC	Montenegro	0.000%	1.057%	1.041%	1.181%	1.101%	0.958%	0.927%
	UMIC	Romania	0.118%	0.116%	0.134%	0.301%	0.232%	0.210%	0.275%
	UMIC	Serbia	0.155%	0.264%	0.222%	0.142%	0.148%	0.266%	0.290%
UMIC	Turkey	0.001%	0.001%	0.125%	0.138%	0.115%	0.119%	0.120%	

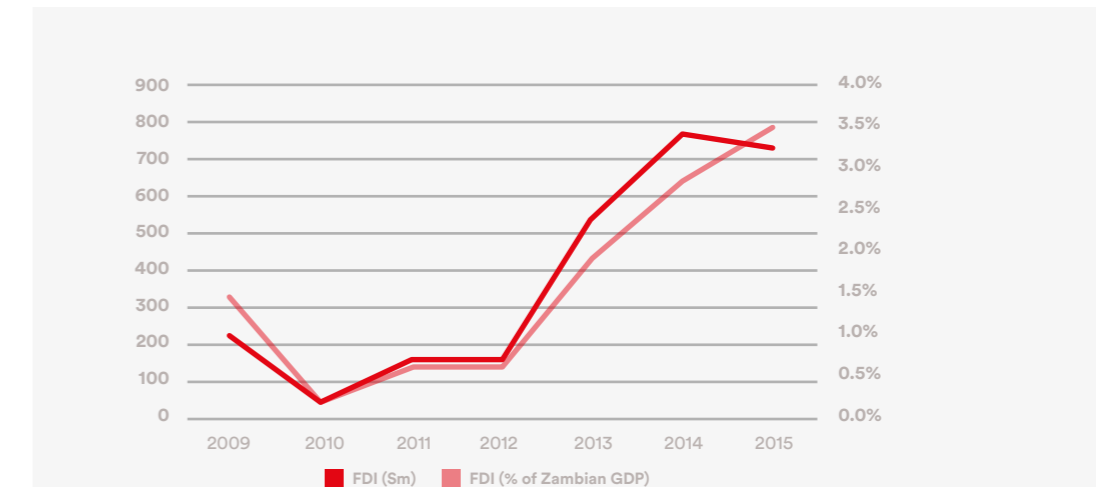
UMIC - Upper Middle Income Countries / LMIC - Lower Middle Income Countries/ LIC - Lower Income Country

Data source: IMF CDIS dataset ¹⁶

While the spillover analysis selected some of these thirteen countries because they have tax treaties with Ireland, the others were a 'non-treaty' control group whose low Irish FDI instocks the spillover analysis similarly pointed to as evidence of weak linkages between Ireland and the developing world.

The IBFD analysis acknowledges that Irish FDI instocks are “more than marginal” for one of these thirteen countries – Zambia - which up to 2015 had a particularly unbalanced DTA with Ireland (since renegotiated), but dismisses them by stating: “Note, however, that [Irish FDI instock to Zambia] declines in absolute and relative terms between 2009 and 2012.” ¹⁷ Looking at other years shows that this trend is wholly unrepresentative (Figure 4): in fact, Irish FDI instocks to Zambia rose between 2010 and 2012, have increased substantially since 2012, and by 2015 (the latest year for which figures are available) constituted over 3% of Zambia’s entire GDP.

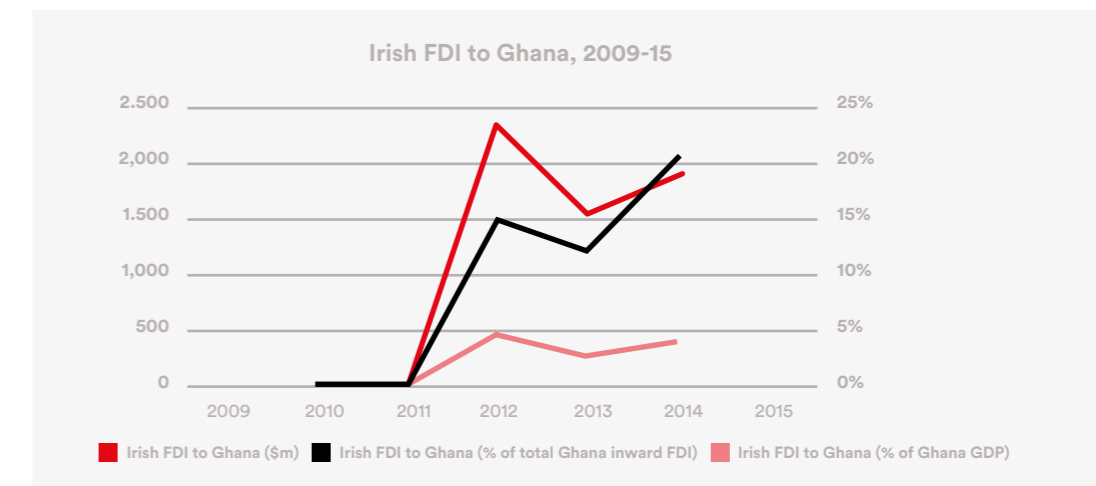
Figure 2: Irish FDI instock to Zambia, 2009-2015



Data source: IMF CDIS dataset

Substantial post-2012 increases in Irish FDI are also evident for developing countries which were not in the IBFD sample: Ghana and Cabo Verde have since 2012 seen Irish FDI approaching 5% or more of their GDP, while Ireland became the second-largest source of overseas investment to Nepal in 2012. Significantly, Ireland has finished negotiating a tax treaty with Ghana since the IBFD report was published. At the same time, since 2012 Ireland has become the largest source of foreign investment in Ghana, with Irish FDI constituting a quarter of the country’s entire foreign direct investment stock - over seventy times greater than the proportion of FDI of any country included in the IBFD sample:

Figure 3: Irish FDI instock to Ghana, 2009-2015



Data Source: IMF CDIS dataset. N.B. Ghanaian FDI figures for 2009 and 2015 are redacted in the CDIS dataset.

The IBFD analysis accepts that Irish PI stocks into developing economies are more significant than FDI stocks, but dismisses the impact of their tax treatment by arguing that geographical distribution of these PI stocks is not significantly affected by the existence or not of tax treaties with Ireland.¹⁸ **As discussed below, this is using the answer to one question for a different question, and tells us nothing about the absolute scale of the resultant revenue losses on that PI.**

II. DATA USAGE

In addition to its limited data, there is a larger conceptual and logical jump in the spillover analysis' treatment of FDI (and portfolio investment) data. In accordance with the original terms of reference set by the Department of Finance, its analysis is comparative.¹⁹ It compares FDI/PI in two groups of selected countries - one group whose members have double tax treaties with Ireland and one group whose members do not. It finds little meaningful difference in the levels of Irish FDI or PI to countries in each group.

This comparison is only meaningful for answering the question: "what impact do Irish DTAs have on directing or attracting flows of capital and income to different countries?"²⁰ Such comparison between treaty and non-treaty countries says nothing about the absolute scale of these income flows, whether through a tax treaty or not. Nor does it say anything about the Irish tax treatment of income or capital gains from those capital stocks and flows. Such a comparative analysis thus says little about the extent to which overall Irish tax treatment of that income or capital gains may erode the tax base of developing countries.

Yet this is exactly how the spillover analysis then uses its FDI/PI findings. It uses these findings to dismiss, for example, the impact of Ireland's previously weak tax residency rules for companies (exploited in the "double Irish" structure): "the quantitative analysis in chapter 3 of this spillover analysis seems to suggest that the effect of the old residence rules on developing countries was insignificant, and they are unlikely therefore to have given rise to significant negative spillover effects on those developing economies".²¹ This ignores the fact that structures exploiting the residence rules, such as the "double Irish", did not require the existence of a tax treaty between Ireland and the place where sales are made; and was designed precisely to get around Irish royalty WHT's in the absence of a treaty between Ireland and the tax haven destination of the income.

Equally, the impact of the lowering of WHT's on interest and royalties produced by some Irish bilateral tax treaties is dismissed by claiming that "the analysis of income and FDI data (see Part VI) shows that the actual loss of revenue for these countries [on interest payments] seems limited"; and that "the analysis of income and FDI data and trade flows (see Part III and IV) shows that the actual loss of revenue on royalty payments for these countries seems limited".²²

Beyond the question of whether the spillover analysis handles the data appropriately, any analysis based on FDI/PI data has a more fundamental consequence. The spillover analysis argued that foreign direct investment (FDI) from Ireland to developing economies (and thus income flows from those developing economies into Ireland as dividends and interest) is:

- ▶ small in absolute terms (i.e. in comparison with global stocks/flows of FDI);
- ▶ small in relation to developing countries' economies; and
- ▶ small in relation to developing countries' total inward stocks of FDI.²³

Basing a spillover assessment on the size of capital investment to any single developing country proportionate to global capital investments will inevitably minimise the significance of FDI into developing countries. This is because FDI stocks/flows are highly concentrated globally on a small number of wealthy economies. The proportion of global FDI left for small developing economies is thus always going to be a tiny slice of global FDI: potentially very significant for each small developing economy, but inevitably very small when set against global stocks/flows as a whole. In 2015, the latest year for which data is available, half of all FDI instocks were concentrated in just six major economic or financial centres (USA, UK, Netherlands, Luxembourg, China and Switzerland). 80% of all FDI instocks that year went to just 20 major economies, all of them high-income or the emerging economies of Brazil, India, China and South Africa (BRICS). 187 economies, including almost all lower- and middle-income countries other than BRICS, shared just 3% of global FDI instocks in 2015.²⁴ Cross-border portfolio investment (PI) is even more concentrated still.²⁵ Thus any analysis of spillovers based on the size of investment into almost any smaller or poorer economy will automatically and inevitably suggest insignificant spillover effects.

Even comparing stocks/flows of FDI into a developing economy with the size of that developing country's economy is a blunt measure of the relative significance of that FDI for the developing economy or its tax base. Foreign corporations are generally disproportionately large and disproportionately productive components of many developing countries' economies, making them disproportionately significant as taxpayers. Arguably a more meaningful measure would therefore be to estimate the tax foregone on investment income flowing back into Ireland from each developing economy, as a consequence of particular features of Ireland's treaty or domestic regimes. This could then be compared to the proportion of total tax take in the originating developing economy.

Getting country-specific estimates of such foregone tax is undeniably challenging. Revenue will be lost through many different mechanisms, each of which is likely to be quite small in isolation. However cumulatively it may be significant, especially in relation to the developing country's tax take. Data on tax take for different taxes (VAT, income tax, and so on) and taxpayers is also incomplete for many developing countries.²⁶ There will be inevitable debate about methodology, particularly in the absence of company-level data. There are nonetheless estimation techniques for simple aspects of the tax treatment of cross-border income flows, such as WHT rates on interest and dividends lowered through tax treaties. These formed part of the Netherlands spillover analysis exercise, and have also been used by NGOs.²⁷

3. ALTERNATIVE APPROACHES

We start with some basic facts about Irish investment flows into developing countries. Between 2012 and 2015 (the last year in which data is available), Irish-resident companies held between US\$20bn and US\$33bn of direct investments in developing economies (both debt and equity) and between US\$88bn and US\$122bn of portfolio investments (PI), primarily debt.²⁸ These are small figures in relation to global Irish outstocks of FDI and PI, but not as insignificant in absolute terms in relation to other financial flows, such as aid flows from Ireland to the developing world.

It is harder to estimate the money flowing back to Ireland (and often out again) as a result of these investments. Irish national accounting statistics provide global figures for income deriving from Irish outbound FDI and outbound PI.²⁹ This income is broken down by returns to debt investment and returns to equity investment, but not by the countries from which the income derives. (Much of this income does not stay in Ireland, moreover, particularly that accruing to S110 companies which commonly act as conduits for interest on securitized debt).

If we assume, however, that the rate of return on FDI and PI is approximately the same for all countries (a conservative assumption in the case of developing countries, where rates of return on investment are often higher than in developed economies) we can generate estimates for the proportion of these returns on FDI and PI coming from developing economies by applying the ratio of developing country FDI/PI to all outbound FDI/PI, to these income figures (Figure 5).

These figures are rough estimates only, but suggest that at a minimum between US\$600m and US\$1.9bn is being earned by Irish investors each year from FDI into developing countries as interest and dividends; and between US\$1.3bn and US\$2bn on PI. We cannot know the tax treatment of this income, but assuming conservatively that all these income flows are subject to 15% WHT at source - a highly conservative estimate given the prevalence of WHT reductions in tax treaties - this still constitutes a return to Ireland of between two to four times the size of the Irish aid budget, for instance.³⁰

Figure 5: Estimates of returns to Irish FDI and PI into developing countries

USDm	2009	2010	2011	2012	2013	2014	2015
Total Irish FDI to LICs	0	10	14	43	44	43	35
Total Irish FDI to LMICs	471	449	686	3,273	2,927	3,465	1,602
Total Irish FDI to UMICs	3,594	8,915	16,547	30,033	19,206	19,954	20,257
Total Irish FDI to LICs/MICs	4,066	9,374	17,247	33,349	22,178	23,462	21,893
All Irish FDI outstocks	290,357	307,675	394,057	399,061	408,787	507,150	645,808
Total Irish FDI to LICs/MICs as % of all Irish FDI	1.4%	3.0%	4.4%	8.4%	5.4%	4.6%	3.4%
Irish capital income on equity	8,468	15,300	16,103	17,713	19,070	22,092	13,337
Irish capital income on debt	4,354	3,697	5,191	4,754	4,854	4,251	3,985
Estimated Irish capital income on LIC/MIC equity	119	466	705	1,480	1,035	1,022	452
Estimated Irish capital income on LIC/MIC debt	61	113	227	397	263	197	135
Total Irish PI to LICs	171	144	119	214	301	636	528
Total Irish PI to LMICs	8,667	11,555	9,557	12,451	11,871	23,385	24,562
Total Irish PI to UMICs	38,620	56,771	53,161	75,463	70,519	100,110	97,772
Total Irish PI to LICs/MICs	47,458	68,471	62,837	88,128	82,691	124,131	122,862
All Irish PI outstocks	1,948,551	1,948,566	1,853,174	2,093,698	2,241,567	2,349,427	2,373,200
Total Irish PI to LICs/MICs as % of all Irish PI	2.4%	3.5%	3.4%	4.2%	3.7%	5.3%	5.2%
Irish financial income on equity	5612	7198	7432	8148	9254	11941	11460
Irish financial income on debt	29977	26088	25384	24281	24761	31736	29375
Estimated Irish financial income on LIC/MIC equity PI	137	253	252	343	341	631	593
Estimated Irish financial income on LIC/MIC debt PI	730	917	861	1022	913	1677	1521

Sources: IMF CDIS, IMF CPIS, CSO Tables BPCA1 and BPA20³¹

Of course, developing countries will have foregone tax revenues on only a small proportion of these investment returns as a result of Ireland's tax treatment of them. And of course middle-income countries are a very mixed group – from Zambia to China – which vary widely in terms of the resilience of their public revenues and the revenue needs of their public sectors. **Country-specific estimates of such revenue loss is thus important, though challenging: the effect of Ireland's tax regime on another economy will be cumulative, across many different channels, and for any single avenue or channel is likely to be quite small.**

As a single well known example: Zambia, up to 2015, had an antiquated and extremely imbalanced tax treaty with Ireland which cancelled all WHT's on dividends and income flowing from Zambia to Ireland. It also contained no modern anti-avoidance provisions (the new 2015 bilateral tax treaty agreed by both countries also contains no modern anti-avoidance provisions, in contrast to the recommendations of the OECD Base Erosion Profit Shifting (BEPS) process, still lowers WHT's from the 20% Zambian domestic rates to 10% for interest and 7.5% for dividends, and still prevents the parties from levying any WHT's on fees for management or services). Irish FDI and PI into Zambia is small in global terms but not insignificant. Figure 6 estimates the effect of these WHT provisions on the likely capital and financial income on Irish investment into Zambia from 2009 to 2015 (when the old ZM-IE tax treaty was still in force). This is a crude analysis: one tax 'channel', ballpark figures only for dividend and interest flows, and a static analysis which does not take into account the dynamic effect of tax treaties on the size of investment flows themselves. Nonetheless we provide it here as an illustration that even with limited data, 'ballpark' estimates can be made of some tax spillover impacts, even if the IBFD analysis did not do so. We intend it as the starting point for a methodological conversation about more sophisticated techniques, using much better data, that might produce a proper quantitative assessment of Irish tax spillovers.

Figure 6: likely WHT effect of pre-2015 Ireland-Zambia tax treaty (Interest and Dividends)

ZAMBIA (US\$m)	2009	2010	2011	2012	2013	2014	2015
Total FDI to Zambia Irish	214	47	147	160	534	765	736
All Irish FDI outstocks	290,357	307,675	394,057	399,061	408,787	507,150	645,808
Total FDI to Zambia as % of all Irish FDI	0.07%	0.02%	0.04%	0.04%	0.13%	0.15%	0.11%
Irish capital income on equity	8,468	15,300	16,103	17,713	19,070	22,092	13,337
Irish capital income on debt	4,354	3,697	5,191	4,754	4,854	4,251	3,985
Estimated Irish capital income on Zambian equity	6.24	2.34	6.01	7.10	24.91	33.32	15.20
Estimated Irish capital income on Zambian debt	3.21	0.56	1.94	1.91	6.34	6.41	4.54
Total PI to Zambia	13	5	10	21	18	85	94
All Irish PI outstocks	1,948,551	1,948,566	1,853,174	2,093,698	2,241,567	2,349,427	2,373,200
Total PI to Zambia as % of all Irish PI	0.0007%	0.0003%	0.0006%	0.0010%	0.0008%	0.0036%	0.0040%
Irish financial income on equity	5612	7198	7432	8148	9254	11941	11460
Irish financial income on debt	29977	26088	25384	24281	24761	31736	29375
Estimated Irish financial income on Zambian equity PI	0.04	0.02	0.04	0.08	0.07	0.43	0.45
Estimated Irish financial income on Zambian debt PI	0.20	0.07	0.14	0.24	0.20	1.15	1.16
Zambian domestic WHT rate (dividends)	15%	15%	15%	15%	20%	20%	20%
Zambian domestic WHT rate (interest)	15%	15%	15%	15%	20%	20%	20%
Estimated foregone Zambian WHT (equity capital income)	0.94	0.35	0.90	1.07	4.98	6.66	3.04
Estimated foregone Zambian WHT (debt capital income)	0.48	0.08	0.29	0.29	1.27	1.28	0.91
Estimated foregone Zambian WHT (equity financial income)	0.01	0.00	0.01	0.01	0.01	0.09	0.09
Estimated foregone Zambian WHT (debt financial income)	0.03	0.01	0.02	0.04	0.04	0.23	0.23
TOTAL estimated foregone Zambian WHT	1.45	0.45	1.22	1.40	6.31	8.26	4.27
TOTAL net overseas development assistance (ODA) from Ireland	32.8	30.91	24.75	23.88	22.76	20.39	19.29
TOTAL estimated foregone Zambian WHT as a % of Irish net ODA	4%	1%	5%	6%	28%	41%	22%

The rough estimate this simple exercise produces for the foregone Zambian WHT on investment income as a result of the pre-2015 Ireland-Zambia tax treaty is nonetheless instructive. Again, these are small figures in global terms (between US\$0.4 and US\$8.3 million annually). But on an annual Zambian WHT take of perhaps US\$60m – around a fifth of its corporate income tax intake - this may be around 10-15% of their total WHT revenues: not huge, but not an insignificant proportion for a single tax treaty partner.³² As the table above shows, in some years this potential foregone revenue has been equivalent to 20-40% of Irish aid to Zambia. (The new Ireland-Zambia tax treaty in force since 2015 raised WHT rates on dividends and interest. It will be instructive to see what the likely revenue gain to Zambia will be from this renegotiation when FDI figures for 2016 and 2017 become available).

Similar calculations can be done for other Irish treaty partners in the developing world, in cases where FDI/PI is significant in scale, and WHT reduction significant through the treaty. For instance:

Figure 8: likely WHT effect of Ireland-South Africa and Ireland-Morocco tax treaties (interest and dividends)

South Africa	2011	2012	2013	2014	2015
Total FDI (USDm)	411	452	334	389	227
Total FDI as % of all Irish FDI	0.10%	0.11%	0.08%	0.08%	0.04%
Estimated Irish capital income on SA equity (USDm)	16.78	20.06	15.58	16.95	4.69
Estimated Irish capital income on SA debt (USDm)	5.41	5.38	3.97	3.26	1.40
Total PI (USDm)	6,669	9,395	8,272	9,516	10,226
Total PI as % of all Irish PI	0.3599%	0.4487%	0.3690%	0.4050%	0.4309%
Estimated Irish financial income on SA equity PI (USDm)	26.75	36.57	34.15	48.37	49.38
Estimated Irish financial income on SA debt PI (USDm)	91.35	108.96	91.37	128.54	126.57
Treaty reduction in SA domestic WHT rate (dividends)	5% (FDI)/ 0% (PI)	10% (FDI)/ 5% (PI)	10% (FDI)/ 5% (PI)	10% (FDI)/ 5% (PI)	10% (FDI)/ 5% (PI)
Treaty reduction in SA domestic WHT rate (interest)	0%	0%	0%	0%	15%
Estimated foregone SA WHT (equity capital income)	0.84	2.01	1.56	1.69	0.47
Estimated foregone SA WHT (debt capital income)	-	-	-	-	0.21
Estimated foregone SA WHT (equity financial income)	-	1.83	1.71	2.42	2.47
Estimated foregone SA WHT (debt financial income)	-	-	-	-	18.99
TOTAL estimated foregone SA WHT	0.84	3.83	3.27	4.11	22.13
Estimated foregone SA WHT (dividends) as proportion of total SA WHT (dividends) tax take ³³	0.03%	0.16%	0.18%	0.21%	0.16%
Estimated foregone SA WHT (interest) as proportion of total SA WHT (interest) tax take	-	-	-	-	111%
TOTAL net overseas development assistance (ODA) from Ireland	7.46	6.32	5.44	5.4	6.32
TOTAL estimated foregone SA WHT as a % of Irish net ODA	11%	61%	60%	76%	350%

Morocco	2011	2012	2013	2014	2015
Total FDI (USDm)	C	125	131	117	97
Total FDI as % of all Irish FDI	?	0.03%	0.03%	0.02%	0.02%
Estimated Irish capital income on Moroccan equity (USDm)	?	5.56	6.11	5.08	2.00
Estimated Irish capital income on Moroccan debt (USDm)	?	1.49	1.56	0.98	0.60
Total PI (USDm)	124	169	116	464	484
Total PI as % of all Irish PI	0.0067%	0.0081%	0.0052%	0.0197%	0.0204%
Treaty reduction in Moroccan WHT rate (dividends)	9% (FDI) / 5% (PI)	9% (FDI) / 5% (PI)	9% (FDI) / 5% (PI)	9% (FDI) / 5% (PI)	9% (FDI) / 5% (PI)
Morocco domestic WHT rate (interest)	0%	0%	0%	0%	0%
Estimated foregone Morocco WHT (equity capital income)	?	0.50	0.55	0.46	0.18
Estimated foregone Morocco WHT (debt capital income)	?	-	-	-	-
Estimated foregone Morocco WHT (equity financial income)	0.02	0.03	0.02	0.12	0.12
Estimated foregone Morocco WHT (debt financial income)	-	-	-	-	-
TOTAL estimated foregone Morocco WHT	?	0.53	0.57	0.57	0.30

N.B. we have not compared this foregone tax with aid disbursements, since Morocco receives almost no Irish ODA.

Such calculations show relatively modest figures for potential revenue foregone as a result of a single channel for revenue impact (interest and dividend WHT's reduced as a result of double tax treaties). Nonetheless they show the feasibility of generating approximate estimates for the current revenue impact of particular aspects of Ireland's tax treaty network, which the spillover analysis fails to provide. (Significantly like many other countries, the Irish government undertakes no economic or fiscal analysis of the likely impact of new Irish tax treaties either on Ireland or the treaty partner, even as crude as that presented here, before the Irish government signs them and the Oireachtas ratifies them).³⁴

Other channels of revenue impact may be more significant, and could be estimated using data which the government gathers but does not currently publish. For instance, Ireland's growing role as an international holding location and conduit for intellectual property assets/income – shown in the doubling of royalties and licence fees paid into and out of Ireland from 2011 to 2015³⁵ - means that there is likely to be a significant revenue impact of the tax treatment in Ireland's tax treaties of royalties, of licence fees, and of profits from services provided by Irish companies in other countries. Unlike international investment data, statistics to assess these revenue impacts from the international trade in services are not publicly available in sufficient detail to make country-specific assessments, but are available to the government and could be expanded:

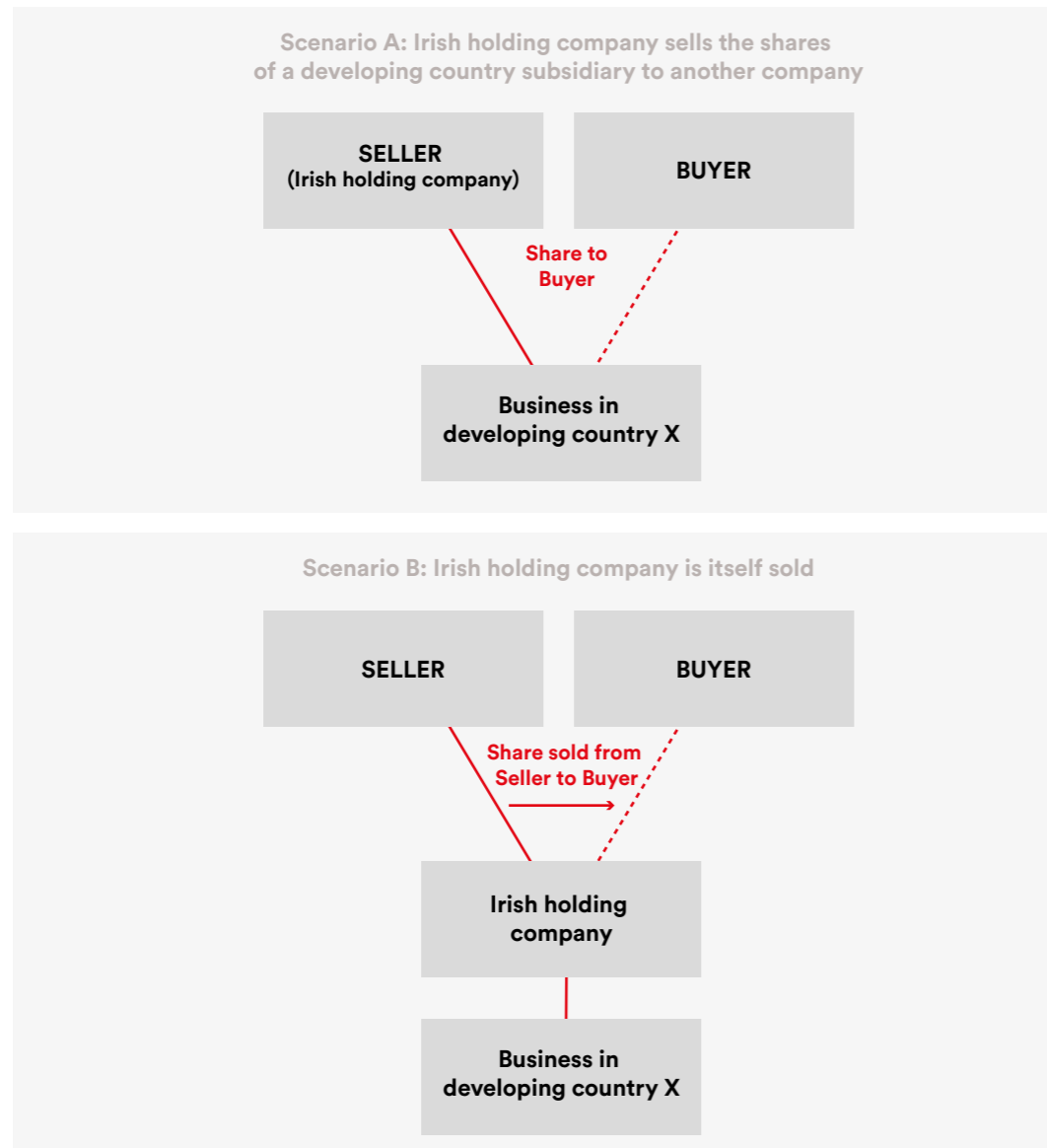
➤ Due to the confidentiality provisions of the Statistics Act, the size of licence fees and royalties exports to all individual Asian, African and South American countries except five (Bermuda, Japan, South Korea, China and Brazil) is redacted from publication, though it is known by the government. Such country-level data could be used non-publicly for such assessments;³⁶

➔ Similarly the Central Statistics Office (CSO) or Revenue could gather firm/company-level data on the geographical split of revenue and profits of Irish companies supplying Intellectual Property(IP)-heavy goods and services to other countries (such as the Irish subsidiaries of Google, Amazon, Microsoft and others).

Such data would provide the statistical basis for revenue impact assessments of the royalties, licence fees and ‘permanent establishment’ provisions of existing or new treaties – including the new Multilateral Convention to Implement Tax Treaty Related Measures to Prevent BEPS, the largest shakeup of global tax treaties for a generation, which the Irish government signed in June 2017.

Likewise the 2015 spillover analysis entirely ignores one major channel of revenue loss for developing countries: the avoidance of capital gains tax when valuable assets in developing countries like mines, factories or large businesses are sold offshore through indirect transfers of shareholdings, exploiting tax treaty restrictions on capital taxes. The spillover analysis does not examine this issue at all,³⁷ despite the fact that the IMF’s Fiscal Spillovers Report the previous year, supposedly the inspiration for and thematic starting-point of Ireland’s own spillover analysis, addressed the issue in detail, calling it “a macro-relevant concern for several low-income countries”.³⁸

Figure 9: Offshore transfers of assets



This is a particularly significant area for Ireland because Ireland’s tax treaty policy is explicitly to reserve taxing rights on such gains from the sale of shares (except where those shares derive value from immovable property) to the country of the seller’s residence- in most cases, Ireland - rather than the country where the asset is located (Scenario A above);³⁹ while Ireland’s holding company regime means that such capital gains are generally not taxed in Ireland either. The Irish government has been very successful in achieving this policy objective in treaty negotiations with developing countries. It has negotiated and signed twelve tax treaties with low-income and lower-middle-income countries, all since 2000. As Figure 10 shows, in all but two cases, the resulting treaty prohibits the treaty partner from taxing capital gains made by Irish holding companies on sales of shares of a company owning assets in that other country, other than in the case of ‘immovable property’ (land or buildings).

Figure 10: Ireland’s tax treaties with low-income and lower-middle-income countries – tax treatment of capital gains from ‘offshore’ sales of shares in companies.

Treaty partner (year signed)	Source taxation of CG on shares deriving value from immovable property	Source taxation of CG on shares deriving value from movable property
Armenia (2011)	YES	NO
Egypt (2012)	YES	NO
Ethiopia (2014)	YES	NO
Georgia (2008)	YES	NO
India (2000)	YES	YES
Moldova (2009)	YES	NO
Morocco (2010)	YES	NO
Pakistan (2015)	YES	NO
Ukraine (2013)	YES	YES (FDI only, does not apply to M&A)
Uzbekistan (2012)	YES	NO
Vietnam (2008)	YES	NO
Zambia (2015)	YES	NO

The likely revenue impact of these provisions in Ireland’s tax treaty network is difficult to calculate, since data on capital gains from FDI and PI is limited; and capital gains tend to be realised in irregular, large, one-off transactions rather than regular annual income on an investment. The IMF has provided examples involving countries other than Ireland where a single sale of a company or an asset led to capital gains of around \$4bn in Mauritania and Mozambique which went entirely untaxed.⁴⁰

Conclusion

Assessing the economic and fiscal linkages between Ireland and developing countries suffers from undeniable data challenges, both in terms of the types of data available, and the widespread redaction of country-specific data. Nonetheless two years on from the 2015 spillover analysis, and with the benefit of both a longer data time series, and new data sources published in 2017, it is clear that:

- ▶ Since 2012 – the latest year for which cross-border investment data was available for the spillover analysis - some developing countries have seen dramatic increases in levels of Irish foreign direct investment. These include Ghana, with which Ireland has also concluded a double tax treaty since the spillover analysis was published.
- ▶ Much publicly-redacted data on cross-border flows of investment returns, services and royalties income from developing countries into Ireland is nonetheless available to the government, and could be used in non-public spillover assessments;
- ▶ Several key areas of potential fiscal spillover were not examined in the spillover analysis: particularly the booking in Ireland of revenue from goods actually shipped from elsewhere (as in the notorious ‘double Irish’ arrangements); and capital gains from the sale of shares in Irish holding companies owning developing country assets;
- ▶ The Department of Finance, Revenue or CSO could usefully gather data to assess such spillovers from Irish firms: particularly geographical revenue splits and information on capital gains by location of assets.

These data issues compound conceptual and legal gaps in the spillover analysis, which a companion paper to this one examines in detail.

Two years on from the spillover analysis, and in an international tax environment that continues to evolve rapidly, they make a compelling case for the government to look again at tax spillovers and their impact on some of the poorest countries in the world.

Footnotes

1. IBFD/Department of Finance, IBFD spillover analysis: Possible Effects of the Irish Tax System on Developing Economies (July 2015), p.60, http://www.budget.gov.ie/Budgets/2016/Documents/IBFD_Irish_Spillover_analysis_Report_pub.pdf
2. IBFD/Department of Finance, IBFD spillover analysis: Possible Effects of the Irish Tax System on Developing Economies (July 2015), pp. 48, 51.
3. FDI can also include reinvesting earnings in a company rather than extracting them as dividends or interest, thereby constituting additional investment.
4. The Statistics Act 1993 prevents the Irish government, including the CSO, from releasing data that might identify an individual or company. It does not specify the '5 or fewer respondents' threshold for redacting a data point, but Revenue and Finance Department officials commonly use this as a rule of thumb (interviews with Revenue and Finance Department officials, May 2017). Revenue and Finance Department officials suggested that CSO follows the same rule in redacting its own statistics (e.g. FDI statistics), though the Revenue's confidentiality requirements derive from a different statutory basis.
5. Author calculations from Irish FDI data reported to IMF CDIS dataset.
6. Author calculations from Irish FDI data reported to IMF CDIS dataset.
7. Author calculations from Irish FDI data reported to IMF CDIS dataset.
8. Email correspondence with researcher, 20 May 2017. Some non-public data on trade in services was provided, but this is not published in the spillover analysis. See IBFD/Department of Finance, IBFD spillover analysis: Possible Effects of the Irish Tax System on Developing Economies (July 2015), p. 37.
9. 2009-2015. Author calculations from Irish FDI data reported to IMF CDIS dataset.
10. Author calculations from IMF CDIS dataset.
11. F. Weyzig, Taxation and Development: effects of Dutch tax policy on taxing multinationals in developing countries (PhD Dissertation, Radboud University, 2013), https://francisweyzig.files.wordpress.com/2014/02/taxation_and_development1.pdf
12. 2009-2015. Author calculations from Irish FDI data reported to IMF CDIS dataset.
13. For Bermuda and Jersey as an intermediary for FDI into the developing world, see Christian Aid, Invested Interests: The UK's Overseas Territories' Hidden Role in Developing Countries (June 2013), <http://www.christianaid.org.uk/Images/Invested-Interests-Christian-Aid-tax-report.pdf>
14. Irish Times, LuxLeak Investigation (2014), <https://www.irishtimes.com/business/lux-leaks>
15. Author calculations from IMF CDIS dataset. The 22 FDI datapoints are shown in Table 4 of the spillover analysis (p. 21). Within the IMF CDIS dataset, from which Table 4 draws, data on FDI is available for 137 low- and middle-income countries. From 2009 to 2012, 90 data points on Irish-reported FDI outstocks to particular countries are redacted (leaving 458 data points extant). 19 data points on country-reported FDI instocks from Ireland are redacted (leaving 529 data points extant). In 23 cases between 2009 and 2012, either the Irish FDI data reported by both the receiving LIC/MIC country and by Ireland is redacted; or the Irish-reported data point is redacted and the receiving country does not report. This leaves 525 cases, or 96%, where there is data available for FDI inflows from Ireland to a LIC/MIC country either reported by Ireland or by the receiving country. Note that the spillover analysis (Table 4) mixes Irish-reported outstocks and receiver-reported instocks.
16. See christianaid.ie for spreadsheet containing data calculations.
17. IBFD/Department of Finance, IBFD spillover analysis: Possible Effects of the Irish Tax System on Developing Economies (July 2015), p. 22
18. Ibid, Chapter III, pp. 24-25.
19. Department of Finance, Public Consultation Paper. Spillover Analysis – Possible Effects of the Irish Tax System on Developing Economies (n.d. 2014), <http://www.finance.gov.ie/sites/default/files/Spillover%20Analysis-Public%20Consultation%20fin.pdf>
20. There are also a number of design problems to the approach that the Spillover Analysis takes, even in answering this narrow question: possible selection bias, questions about why all counterpart countries were not included in the analysis, and a host of other design issues. These design problems mark out this analysis as a comparatively crude addition to the rich empirical/econometric literature on the investment impact of DTAs – including by some members of the Spillover Analysis research team itself - all of which the Spillover Analysis ignores.
21. IBFD/Department of Finance, IBFD Spillover Analysis: Possible Effects of the Irish Tax System on Developing Economies (July 2015), p.60,
22. Ibid, pp. 48, 51.
23. Ibid, Chapter III, Table 4, p. 21.
24. Calculations from IMF CDIS dataset.
25. As of June 2015, over 70% of all cross-border portfolio investment assets recorded in the IMF's CPIS dataset were in just six countries: USA, UK, Luxembourg, Belgium, France and Singapore. 218 economies shared just 3% of all cross-border PI assets. (Author calculations from IMF CPIS dataset).
26. For the most comprehensive effort to bring together

- disaggregated revenue statistics for developing countries, see the ICTD Government Revenue Dataset: <http://www.ictd.ac/datasets/the-ictd-government-revenue-dataset>.
27. For a review of these studies, see Netherlands Ministry of Foreign Affairs, Evaluation Issues in Financing For Development: analysing effects of Dutch corporate tax policy on developing countries (IOB Study No. 386, November 2016), pp. 64-68, <https://www.government.nl/documents/reports/2013/11/14/iob-study-evaluation-issues-in-financing-for-development-analysing-effects-of-dutch-corporate-tax-policy-on-developing-countries>
28. IMF CDIS and CPIS databases. Developing countries are regarded as those classified by the World Bank in 2015 as 'low', 'lower-middle' or 'upper-middle' income countries.
29. These figures appear respectively in the current account and financial account of national accounts.
30. For Irish ODA statistics, see <http://www.oecd.org/dac/ireland.htm>. Average annual net ODA from Ireland 2009-15 was \$857m.
31. This modifies a technique developed by Katrin McGuarin of the Dutch non-governmental research organisation SOMO, and refined by Dr. Francis Weyzig.
32. Zambian withholding tax take is estimated by taking the total Zambian annual tax take (around 12% of GDP or some US\$2bn) and multiplying it by the approximate proportion of that tax take constituted by withholding taxes: around 3% according to 2011 Zambian Revenue Authority estimates. See Zambian Revenue Authority, Programme proposal to support specialized large taxpayer revenue administration in Zambia, 2011-2014 (February 2011).
33. Tax take figures from South African Revenue Service/ National Treasury, 2016 Tax Statistics, Table A1.4.1, <http://www.sars.gov.za/AllDocs/Documents/Tax%20Stats/Tax%20Stats%202016/Tax%20Stats%202016%20Full%20document%20web.pdf>
34. Interview with Department of Finance official, 6 May 2017
35. See forthcoming Christian Aid Ireland paper on tax outcomes overlooked by the 2015 Department of Finance Spillover Analysis.
36. Central Statistics Office, Table 2a, Exports and Imports of Services Classified by Geographic Location, <http://www.cso.ie/en/releasesandpublications/er/its/internationaltradeinservices2015/>
37. It mentions capital gains once, on page 63, within a discussion of Ireland's holding company regime; but undertakes no analysis of this regime's likely impact on developing countries, nor any analysis of the capital gains tax provisions of Ireland's bilateral tax treaties.
38. International Monetary Fund, IMF Policy Paper: Spillovers in International Corporate Taxation (9 May 2014), Appendix VI, <https://www.imf.org/external/np/pp/eng/2014/050914.pdf>.
39. <http://www.revenue.ie/en/tax-professionals/documents/commentary-irish-tax-treaties.pdf>
40. International Monetary Fund, IMF Policy Paper: Spillovers in International Corporate Taxation (9 May 2014), Appendix VI, <https://www.imf.org/external/np/pp/eng/2014/050914.pdf>.

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Christian Aid Ireland is an international development organisation. We work globally for structural change that eradicates the causes of poverty, striving to achieve equality and dignity for all, regardless of faith or nationality. We are part of a wider movement for social justice. We provide urgent, practical and effective assistance where need is greatest, tackling the effects of poverty, as well as its root causes.

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