Country-by-country reporting data of banks: tax havens and the Czech Republic

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Abstract

The country-by-country reporting data is a result of one of the few implemented financial transparency recommendations in the aftermath of the global financial crisis. I use newly collected data for five largest bank groups active in the Czech Republic in 2015 to shed more light on the location of banks' activities. I focus on how much of their economic activities and profits are located in tax havens. Tax havens are defined here in line with previous research and the most intensively used tax havens are Ireland and Luxembourg. After excluding headquarter-countries from the list of tax havens, two of the five banks seem not to be present in tax havens at all. For the other three banks, I find misalignment of the location of profit and the location of turnover and employees. For these three, I estimate that tax havens account for 21, 21 and 15 percent of their global profits, but only for 11, 10 and 5 percent of their global turnover and 5, 4 and 1 percent of their global number of employees. I discuss potential explanations for such misalignment, including profit shifting, and how further research should differentiate between these explanations.

Key words: banks; country-by-country reporting; tax havens; profit shifting; Czech Republic; European Union

JEL Classification: C81; F23; F36; G21; H25; L23

1 Introduction

The country-by-country reporting (CBCR) data is a result of one of the few implemented financial transparency recommendations in the aftermath of the global financial crisis. The banks' CBCR data are available publicly due to disclosures required by the European Union's Capital Requirements Regulations 2013. It requires banks as well as other financial institutions in the European Union to publish annually country-level information about their turnover, number of employees, profit, and tax, and most banks do so since the financial year of 2014. The CBCR data of banks enables an analysis of where the banks conduct their activities and, in the future, might shed more light on base erosion and profit shifting (OECD, 2013).

I study the CBCR data of five largest banks active in the Czech Republic in 2015, including global activities of their banking groups. My main research question is what the activities of these banks are in tax havens. I use recently collected data available as a result of the new regulation. I focus on how much of banks' economic activities and profits are located in tax havens and whether there is a misalignment between the location of activities and profits. Tax havens are defined here in line with previous research by Oxfam (2017) and the most intensively used ones are Ireland and Luxembourg.

In my preferred results with the exclusion of two headquarter-countries from the list of tax havens (Austria and Belgium), two of the five banks seem not to be present in tax havens at all (Erste Group and Raiffeisen Bank International). For the other three banks, I find a misalignment of the location of profit and the location of turnover and employees. For these three (KBC Bank, Société Générale, and

[1] I thank Ondřej Kopečný for his comments. I gratefully acknowledge the financial support from Glopolis which was provided as part of the project Mobilising European Citizens to place inequality and tax justice at the heart of the European development agenda during EYD 2015 and beyond (contract reference EuropeAid /134863/C/ACT/MULTI) financed by the European Union and the Czech Development Agency. The paper is yet to undergo a proper peer-review and it should thus be considered a preliminary version only, with results based on a working version of a data set that is being developed for another project. I am thankful to Eliška Jelínková, Jakub Siegl and Lukáš Bíro for their assistance with the preparation of the data, which are used in this paper.

Unicredit), I estimate that tax havens account for 21, 21 and 15 percent of their global profits, respectively, but only for 11, 10 and 5 percent of their global turnover and 5, 4 and 1 percent of their global number of employees. I discuss potential explanations for the misalignment, including profit shifting, and how further research should differentiate between them.

I structure the remainder of this paper as follows. In section 2, I briefly discuss some of the most relevant literature. In section 3 I introduce data and methodology. In section 4 I present new estimates relevant for the Czech Republic. I conclude with a discussion of future research and policy recommendations.

2 Literature review

The relevant literature is quite voluminous, covering various fields and topics. Here I briefly review only the following seven areas, which are some of the most relevant ones to the main research question: the use of banks' CBCR data; other CBCR data; measuring profit misalignment; financial transparency; Czech banks; estimates of revenue effects of international corporate tax avoidance for the Czech Republic.

2.1 Banks' CBCR data

The CBCR bank data have become only recently available, but there are already a few notable analyses. Richard Murphy, the originator and advocate of the CBCR, published one of the first empirical analyses using the data in a report for a group of members of the European Parliament (Murphy, 2015). Murphy (2015) uses data for 26 banks, 17 of which had published the full data, 7 of which published only partial data, to conclude that overstatement of profits in low tax and offshore jurisdictions appears to be occurring. Jelínková (2016) uses the data for 32 banks (28 of them for both 2014 and 2015) in her student thesis and finds that banks report their profits disproportionately to their activities. She estimates that if profits were apportioned across countries on the basis of employees and turnover, on average around 60% of the profits would be redistributed. Oxfam has been very active in this area with a few reports focused on individual countries such as France in 2016, Oxfam (2016), and a recent report (Oxfam, 2017) for which SOMO (2017) prepared estimates focused on CBCR data of 20 European banks and their presence in tax havens. In this paper I use a different data set (with more banks, including those most important for the Czech Republic), but employ a methodological approach consistent with Oxfam (2017) to enable direct comparisons.

2.2 Other CBCR data

Following the introduction of public country-by-country reporting for extractive sector companies listed in the EU and USA (Wójcik, 2015), international civil society activists might make this spread across the globe (Seabrooke & Wigan, 2015). Johannesen & Larsen (2016) find that country-by-country reporting of tax payments is associated with significant decreases in firm value in extractive industries and they associate this effect of disclosure rules with a reduction of rents derived by firms from tax evasion. Akamah, Hope, & Thomas (2017) find that US multinational companies that operate more extensively in tax havens tend to disclose their foreign operations at a higher level of aggregation. They argue that the evidence is consistent with managers attempting to avoid strong criticisms of their firms' tax-avoidance practices by making geographic disclosures less transparent. They further argue that multinationals have the incentive to hide these activities because increased transparency may provoke public scrutiny from the media, policy makers, and tax-watchdog groups, which can damage the firm's reputation or serve as a red flag for potential government sanctions or additional regulation. The regulatory accounting standards that they make use of (ASC 280 or IFRS 8) offer little specific guidance on how firms define material countries for geographic reporting purposes. In this respect, the new EU regulation requires activities in all the countries to be reported, although in reality a number of banks do have an "Other" category in their financial reports which could potentially be used to conceal some of their activities.

2.3 Estimates of profit misalignment

Some other research studies the misalignment between reported profits and economic activity, e.g. how much more profit is reported in tax havens in comparison with economic activity there. The policy consensus (OECD, 2013) on the need to apply corporate taxation where a given value was created is empirically investigated by two sets of estimates. First, Cobham & Loretz (2014) use company-level balance sheet data retrieved from the Orbis database provided by Bureau van Dijk. Second, Cobham & Janský (2015) estimate the size of the misalignment of economic activity using US data provided by the government Bureau of Economic Analysis. Relatedly, Riedel, Zinn, & Hofmann (2015) find that the tightening of transfer pricing rules raises reported operating profits of high-tax affiliates, and vice versa for low-tax ones, and reduces the sensitivity of affiliates' pre-tax profits to corporate tax rate changes, and they therefore suggest the effectiveness of the regulations in limiting tax-motivated profit shifting behaviour. In another similar analysis, MSCI (2015) identify 243 companies (out of 1,093 companies within their MSCI World Index constituents; health care and IT companies stood out) paying an average rate of 17.7%, versus 34.0%, if these companies were paying taxes in the jurisdictions where they generate revenues, i.e. equivalent to comparing the location of reported profits and sales (the total difference amounts to USD 82 billion per year).

2.4 Estimates of financial transparency

There is a growing research area estimating the effects of financial transparency. Johannesen and Zucman (2014) assess the impact of G20 policy crackdown on tax havens and find that tax evaders tend to shift deposits to havens not covered by a treaty with their home country. Cobham, Janský, & Meinzer (2015) evaluate the financial transparency of a number of countries in the form of the Financial Secrecy Index and operationalise a secrecy or tax haven spectrum capable of accommodating all jurisdictions. Bilateral tax treaties can provide another set of opportunities for tax avoidance and can increase secrecy through complexity in international taxation (McGauran, 2013; Weyzig, 2012). Braun & Weichenrieder (2015) find evidence that the conclusion of a bilateral tax information exchange agreement with tax havens is associated with fewer operations of German MNEs in those tax havens and therefore that these tax agreements affect FDI as well, which they consider as suggesting that firms seek out tax havens not only due to tax, but also because of the secrecy they offer. Dyreng, Hoopes, & Wilde (2016) examine the effects of ActionAid International's, a nongovernmental organisation, public pressure on noncompliant United Kingdom firms in the FTSE 100 to comply with a rule requiring them to disclose the location of all of their subsidiaries.

Caruana-Galizia & Caruana-Galizia (2016) used a leaked data set to show that the growth of EU-owned entities declined, in contrast with a control group of non-EU-owned entities, after the implementation of the 2005 Tax and Savings Directive that obliges cooperating jurisdictions to withhold tax or report on interest income earned by entities whose beneficial owner is an EU resident. Similarly to Johannesen and Zucman (2014), Caruana-Galizia & Caruana-Galizia (2016) observe the substitution of EU ownership for non-EU ownership, as well as the substitution of cooperative for non-cooperative offshore jurisdictions. Along similar lines, Ruf & Weichenrieder (2013) use firm level data on the allocation of passive assets in German multinationals to show an increased preference for low-tax European countries compared to non-European countries following a change in German controlled foreign corporation rules. It is now possible to study the effects of financial transparency in the form of the current availability of the CBCR data and, especially when there is more CBCR data available in the future, the data itself should be used to study effects of other financial transparency changes on profits and economic activity of banks and other multinational enterprises.

2.5 Banks in the Czech Republic

The focus of this paper is on Czech banks, but its methodological approach is international and I therefore only briefly review the quite extensive literature on the specifics of Czech banks and refer to the cited papers for other relevant references. Recent research on Czech banks include the role of banks in the Czech monetary policy transmission mechanism (Pruteanu-Podpiera, 2007), the stability of the credit supply of foreign-owned banks in the Czech Republic and other nine new EU member states

(Festić, 2015), or estimating the efficiency change in the banking sectors of the group of Visegrad countries, including the Czech Republic, during the 2009 – 2013 period (Palečková, 2017). This paper works with data on the Czech Republic's most important banks, all of which are foreign-owned. Fišerová, Teplý & Tripe (2015) study this kind of banks, discuss the example of three top Czech foreign-owned banks, and find that sound banks with higher operational efficiency operating in growing economies with low inflation rate tend to perform better than their peers. Heryán & Stavárek (2012) find some significant relationships between net interest income of foreign parent's and the both amount of gross loans and total deposits of their Czech subsidiaries (in this earlier study they study top five banks with one of them being a different one than those examined in the current paper). They also discuss ways in which it is possible for foreign parent banks to retrieve cash flows from the Czech banking sector: dividends, interest rates on debts, as well as conducting mispriced business between subsidiaries and their parent companies. The latter one seems similar to what the current literature describes as profit shifting and they argue that one of the reasons is information asymmetry – which, I would add, might be mitigated by the publication of the CBCR data with even more detail than is the requirement currently. So there is indeed quite extensive literature on banks in the Czech Republic, however, none of it has used the CBCR data or investigated their relationship with tax havens.

2.6 Revenue effects of international corporate tax avoidance for the Czech Republic

This paper focuses on the activities of banks that are important for the Czech Republic. Although I am not able to contribute with new estimates to the discussion of revenue effects of international corporate tax avoidance, the CBCR data are likely to be used for such estimates in the future. In the face of currently limited evidence and data and on the basis of the reviewed research, I do not know the full revenue effects of base erosion, profit shifting and other related practices by the multinational enterprises for the Czech Republic. Table 1 sums up existing international estimates of what the corporate income tax revenue loss is in the Czech Republic as a result of international corporate tax avoidance. The estimated impacts range from around 1 per cent of GDP to below one tenth per cent of GDP. This wide range of these estimates is partly due to different methodology, inherently imprecise nature of these estimates as well as different avoidance aspects being estimated. For example, the estimates of IMF (2015), re-estimated by Cobham & Janský (2017), focus only on low tax rates by tax havens, and the work of UNCTAD (2015), revisited by Janský & Palanský (2017), investigate only avoidance related to foreign direct investment. Country-by-country reporting data could provide the basis for more detailed or precise answers in the future, especially if they are going to be published also for other sectors than banks.

Table 1. Existing international estimates of what the corporate income tax revenue loss is in the Czech Republic as a result of international corporate tax avoidance

Source	Billion CZK	% GDP
IMF (2014)	8	0.2
IMF's Crivelli et al. (2016)	45	1.0
UNCTAD (2015)	12	0.3
OECD (2015b) (lower)	6	0.1
OECD (2015) (higher)	15	0.3
EPRS (2015) (lower)	15	0.3
EPRS (2015) (higher)	57	1.3
Cobham & Janský (2017) - IMF (2016)	7	0.14
Janský & Palanský (2017) - UNCTAD (2015)	2-3	0.04-0.07

Source: Janský (2016) and author.

4 Data and methodology

The banks' CBCR data are available due to disclosures required by the Capital Requirements Regulations 2013.[2] The data are not aggregated across banks by any institution and are often hard to find at banks' webpages, which are the original sources for most banks (and some of it have been sent via email upon request). The collection of the data is therefore quite time-consuming. The data that I use in this paper have been gathered in a joint effort to which a number of people contributed. Some of it have been prepared by Eliška Jelínková for her student thesis at Charles University in 2016 (Jelínková, 2016) and later other students as well as researchers joined the effort. To my knowledge, the resulting data set is the most comprehensive data set of banks' CBCR data to date. The data are available for two years for most of the banks (2014, 2015), with some having data only for one of the years or for 2013 as well. This paper uses the data as they were on 24 March 2017, but the data set is being continually updated as more data become available. From a wider data set with information for more than 40 banks[3], I use here a subset of banks that are most important for the Czech Republic.

In this paper I focus on 5 bank groups and include the data for their global activities that include 5 subsidiaries that are the largest banks in the Czech Republic. (what I call below the Czech top 5 banks). Table 2 shows the list of these banks, the bank group as well as the name of the main subsidiary. The data set used by Oxfam (2017) includes 20 biggest banks for 2015 (headquartered in the EU), which has information only for Société Générale and Unicredit from the list of Czech top 5 banks.[4] These are five bank groups, which include five largest banks active in the Czech Republic. In the analysis below, I use data for these five bank groups, including Czech as well as all other parts of the bank groups.

Table 2. List of the 5 banks with the largest banks active in the Czech Republic

Bank	The main subsidiary in the Czech Republic
Erste Group	Česká spořitelna
KBC Bank	Československá obchodní banka
Société Générale	Komerční banka
Unicredit	UniCredit Bank
Raiffeisen Bank International	Raiffeisenbank

Source: Author

[2] The requirements originate from Article 89 of the Capital Requirements Directive (CRD IV). Its paragraph 1 says:
"From 1 January 2015 Member States shall require each institution to disclose annually, specifying, by Member State and by third country in which it has an establishment, the following information on a consolidated basis for the financial year:
(a) name(s), nature of activities and geographical location;
(b) turnover;
(c) number of employees on a full time equivalent basis;
(d) profit or loss before tax;
(e) tax on profit or loss;
(f) public subsidies received."

[3] The current selection of banks in this wider data set has been created in the following way. I focus on the biggest banks and to see which they are I use Europe's 50 largest banks by assets according to a leading list in 2015 and 2016 (SNL, 2016). Additionally, there are a few relatively large banks that are not on this list, but for which there are data available in the data set. Currently the data set includes 40 banks in total with information for all the basic variables (and around 20 more banks with incomplete information). Although the data are available due to the European Union's regulations, the data do provide information about other European as well as non-European countries and banks' activities. For example, data are available for Swiss banks such as UBS and Credit Suisse and I include them in the data set. So rather than having EU or European focus, I use the data to shed light on global activities of banks using a sample skewed heavily towards having a better EU and European coverage.

[4] There are some relatively minor differences between the two data sets for these two banks. For example, deferred corporate tax is not included together with current corporate tax in the case of Société Générale, and so the reported values of tax reported here are smaller in this paper than those by Oxfam (2017).

Europe's 20 biggest banks are using tax havens on a relatively large scale according to a new report released by Oxfam (2017) and their underlying research paper (SOMO, 2017). Their sample of 20 banks includes only 2 of the top 5 most important banks for the Czech Republic and I thus use a different data set with all of the top 5 banks to carry out a similar empirical analysis. In this paper I use a different data set than Oxfam (2017), but use a methodological approach consistent with Oxfam (2017) to enable direct comparisons. Importantly, I use the same classification of which countries are considered tax havens as Oxfam (2017). Their classification includes Austria and Belgium (their full list of tax havens is provided in their Appendix 1, page 6). This has some specific implications for the top 5 Czech banks included here, since the three of them not included in Oxfam (2017) happen to be headquartered in Austria (Erste Group and Raiffeisen Bank International) and in Belgium (KBC Bank). The shares of profits and other factors in tax havens are thus inevitably higher than if these two countries, Austria and Belgium, were not considered tax havens. In addition to using the Oxfam definition, I also use the adjusted Oxfam definition of tax havens, in which Austria and Belgium are not classified as tax havens.

5 Results

The main results are in Table 3 and 4. Table 3 includes the information for 5 banks and for their totals and average in rows. The columns include information for four variables: turnover, profit or loss before tax, tax on profit or loss (all three financial variables in millions of euro), and number of employees (in full-time employee equivalents). Each variable is presented in a set of three columns: the first one includes total values summed up across all countries, the second one includes values summed up across all tax havens, and the third column shows the ratio of the two, which indicates the share of total values accounted for by tax haven countries. For example, the final row says that the sum of all the global turnover of the five bank groups (which include also their subsidiaries in the Czech Republic that are the five largest banks in the Czech Republic) was 72 billion in 2015 of which 19 % was in tax havens.

Tax havens account for 29 percent of the profits made by the 5 biggest banks active in the Czech Republic - an estimated €3.690 billion (€12.669 billion in total) - but only 19 percent of banks' turnover and 12 percent of the banks' employees. These estimates are somewhat higher than averages in the report by Oxfam (2017) for the 20 biggest European banks. One explanation is that three of the top 5 Czech banks included here, and not included in Oxfam (2017), happen to be headquartered in Austria (Erste Group and Raiffeisen Bank International) and in Belgium (KBC Bank), which are considered tax havens by Oxfam (2017).

Table 4 shows similar results as Table 3, but with tax havens classified in a different way - in table 4 the classification of the tax havens does not include Austria and Belgium. Using this classification, Erste Group and Raiffeisen Bank International have no reported figures in any tax havens. For the other three banks (KBC Bank, Société Générale, and Unicredit), both Table 3 and Table 4 show a relatively high misalignment of the location of profit and the location of turnover and employees. For these three, I estimate that tax havens account for 21, 21 and 15 percent of their global profits, but only for 11, 10 and 5 percent of their global turnover and 5, 4 and 1 percent of their global number of employees.[5]

[5] Furthermore, for these two banks included in their study, Oxfam (2017) points out some interesting findings:
"Looking at individual banks in more detail, some of the discrepancies are more striking: for example, while 22 percent of Société Générale's profits were registered in tax havens, only 10 percent of its turnover was generated in such jurisdictions and just 4 percent of its employees worked in them." (Oxfam, 2017, p. 14);
"For example, the Panama Papers revealed that French bank Société Générale asked law firrm Mossack Fonseca to open 1,005 shell companies for its clients." (Oxfam, 2017, p. 28);
"The cases in which banks declare profits but do not have any employees working in the jurisdiction are: Bermuda: Société Générale; … Curaçao: Société Générale; Cyprus: Société Générale; Lebanon: Société Générale; Malta: Unicredit" (Oxfam, 2017, p. 49).

Table 3. Activities of the Czech top 5 banks according to the CBCR data and the Oxfam definition of tax havens

	Turnover (€m)			Profit or loss before tax (€m)			Tax on profit or loss (€m)			Number of employees (FTE)		
	Total	Tax havens	Havens as % of total	Total	Tax havens	Havens as % of total	Total	Tax havens	Havens as % of total	Total	Tax havens	Havens as % of total
Erste Group	12772	2838	22%	1638	406	25%	363	146	40%	44086	15646	36%
KBC Bank	6147	3969	65%	2130	1234	58%	-290	-458	-	27033	11892	44%
RaIffeisen Bank International	6224	1296	21%	663	-49	-	294	20	7%	54154	2662	5%
Société Général	25643	2598	10%	6111	1342	22%	1064	210	20%	131716	5147	4%
Unicredit	21328	3160	15%	2127	757	36%	82	6	7%	120735	8222	7%
Total	72114	13861	19%	12669	3690	29%	1513	-76	-	377724	43569	12%

Source: Author on the basis of the data set described in the text.

Notes: Some of the values are negative and I do not show the shares for these.

Table 4. Activities of the Czech top 5 banks according to the CBCR data and the adjusted Oxfam definition of tax havens (without Austria and Belgium)

	Turnover (€m)			Profit or loss before tax (€m)			Tax on profit or loss (€m)			Number of employees (FTE)		
	Total	Tax havens	Havens as % of total	Total	Tax havens	Havens as % of total	Total	Tax havens	Havens as % of total	Total	Tax havens	Havens as % of total
Erste Group	12772			1638			363			44086		
KBC Bank	6147	683	11%	2130	439	21%	-290	65	-	27033	1246	5%
RaIffeisen Bank International	6224			663			294			54154		
Société Général	25643	2439	10%	6111	1272	21%	1064	201	19%	131716	4605	4%
Unicredit	21328	1135	5%	2127	319	15%	82	66	81%	120735	867	1%
Total	72114	4257	6%	12669	2030	16%	1513	332	22%	377724	6718	2%

Source: Author on the basis of the data set described in the text.

Notes: Some of the values are negative and I do not show the shares for these.

There are various potential explanations for the misalignment, including profit shifting, as hypothesised above, or different productivity. Since it is not straightforward to disentangle the various explanations empirically, I leave this task for further research, which could start by looking at indicative correlations of the estimated misalignments with measures of the profit shifting, productivity and other potential reasons for misaligned profit.

The most important tax havens for the top 5 banks by profits are listed in Table 5. With the exception of Belgium and Austria (their specific relevance for the top 5 banks is discussed above), the two most important tax havens seem to be Luxembourg and Ireland, which overlaps with the findings of Oxfam (2017).

Table 6 shows the activities of the top 5 banks in Ireland and Luxembourg (Erste Group and Raiffeisen Bank International have no reported activities in these two countries).

Table 5. The ten most important tax havens for the top 5 banks (by profits), in million euro (and full-time equivalents for employees) and in % (of the totals above, of all banks in all countries)

	Turnover (€m)		Profit or loss before tax (€m)		Tax on profit or loss (€m)		Number of employees (FTE)	
Luxembourg	1999	3%	900	7%	184	12%	1802	0%
Belgium	3435	5%	862	7%	-515	-	11129	3%
Austria	6169	9%	798	6%	107	7%	25722	7%
Ireland	623	1%	447	4%	43	3%	1772	0%
Hong Kong S.A.R. of China	785	1%	343	3%	46	3%	1120	0%
Netherlands	178	0%	153	1%	32	2%	202	0%
Singapore	166	0%	63	0%	1	0%	354	0%
Monaco	149	0%	59	0%	20	1%	361	0%
Jersey	71	0%	22	0%	2	0%	249	0%
Lebanon	0	0%	20	0%	0	0%	0	0%

Source: Author on the basis of the data set described in the text.

Table 6. The activities of the top 5 banks in Ireland and Luxembourg, in million euro (and full-time equivalents for employees) and in % (of the totals above, of all banks in all countries)

		Turnover (€m)		Profit or loss before tax (€m)		Tax on profit or loss (€m)		Number of employees (FTE)	
KBC Bank	Ireland	519	1%	311	2%	28	2%	1056	0%
Société Général	Ireland	9	0%	39	0%	0	0%	46	0%
Unicredit	Ireland	95	0%	97	1%	15	1%	670	0%
KBC Bank	Luxembourg	104	0%	97	1%	31	2%	41	0%
Société Général	Luxembourg	855	1%	587	5%	101	7%	1570	0%
Unicredit	Luxembourg	1040	1%	216	2%	52	3%	191	0%

Source: Author on the basis of the data set described in the text.

Note: Erste Group and Raiffeisen Bank International have no reported activities in these two countries.

6 Conclusions

The country-by-country reporting data is one of the few implemented financial transparency recommendations following the global financial crisis, albeit only since 2015 and only for banks active in the European Union. What can we learn from these recently available data? In this preliminary analysis I find a misalignment of the location of profit and the location of real economic activity. A number of jurisdictions have substantially more profit reported in them than a proportion of employees and turnover suggests would be in line with their economic activity. These jurisdictions include mainly Ireland and Luxembourg, for which there is a lot of data, and some other countries often considered tax havens with little data available, and I do not discuss them in detail here.

Naturally I can see some limitations to the current analysis and there is plenty of potential for future research with more developed estimates. Some of them are related to data quality. The data are not fully comparable across banks and resulting biases might affect also the country-level results. The inclusion of the "other" group of countries in the data published by a number of banks refutes the basic idea of CBCR data and limits its usefulness. The regulators should make sure that future data releases are even more useful than the currently available data, for example, by using the data themselves or initiating their own database rather than leaving this to academics and civil society groups. Some of the existing EU's policy proposals address some of the issues such as the fact that the data are currently published only by banks. European Commission (2016) proposed public country-by-country reporting for all multinational enterprises with a consolidated turnover above EUR 750 million. This proposal's implementation would obviously lead to a much bigger scope for similar research in the future. With this and an improved analysis of the misalignment, the aim should not be only to track the extent of the misalignment but also, if the future research finds that a large part of it is due to profit shifting, contribute to eliminating it.

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