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$$\frac{n!}{(n-1)!} p^{m-1} (1-p)^{n-m} = p \sum_{\ell=0}^{n-1} \frac{\ell+1}{n} \frac{(n-1)!}{(n-1-\ell)! \ell!} p^{\ell} (1-p)^{n-1-\ell} = p \frac{n-1}{n} \sum_{\ell=0}^{n-1} \left[ \frac{\ell}{n-1} + \frac{1}{n-1} \right] \frac{(n-1)!}{(n-1-\ell)! \ell!} p^{\ell} (1-p)^{n-1-\ell} = p^2 \frac{n-1}{n} +$$

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# Profit Shifting Of Multinational Corporations In The European Union: Evidence And Policy Reforms

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## **Abstract:**

Profit shifting of multinational corporations (MNCs) negatively affects citizens, governments as well as other companies in the European Union. This consensus seems to be emerging in spite of the fact that the phenomenon of profit shifting is unobservable directly and therefore only indirect and imperfect estimates can shed light on its effects. In this study, I rely on one set of such estimates, from an academic working paper by Garcia-Bernardo & Janský (2021), to focus on its negative effects on the EU member states' government revenues. Two thirds (18 out of 27) of the EU member states lose out due to profit shifting of MNCs. At the same time, a few EU member states, most notably Netherlands, Ireland and Luxembourg, serve as tax havens and enable this tax avoidance. The EU as whole loses out due to profit shifting. When summed up across the EU member states, 302 billion USD (287 billion EUR) are shifted out of the EU yearly, while 215 billion USD (204 billion EUR) are shifted in. The difference is even starker when expressed in the estimated tax revenues: the EU is losing 12 billion USD (11 billion EUR) while gaining 53 billion USD (50 billion EUR). The bigger difference in estimated tax revenue than in profit shifting is due to the fact that, almost by definition, the shifted profits are taxed at a lower rate in their destination than if they were at their origin. For example, Cayman Islands tax shifted profits at zero rate, whereas profits would be taxed at higher rates in basically all countries from which they were shifted out. In corporate tax avoidance, losers lose more than winners win. Last, but not least, I discuss the global minimum tax rate reform proposals, discussed during 2021. Overall, tax avoidance and the reforms to counter it are, more often than not, the two sides of the same coin and why I draw five lessons jointly for both.

**JEL:** F23, H25, H26, H32

**Keywords:** multinational corporation; corporate taxation; profit shifting; effective tax rate; country-by-country reporting; European Union

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# 1 Introduction

Additional sources of government tax revenues are currently even more sought after than before the COVID-19 pandemic and this makes it more likely for governments to curb tax avoidance more forcefully. The EU has been struggling to reduce profit shifting for years, with the agreed measures, such as Anti-Tax Avoidance Directive (ATAD) directives, having only limited effects and with more ambitious measures, such as the Common Consolidated Corporate Tax Base (CCCTB) proposed by the European Commission in 2010 and 2016, failing to reach the required unanimity among the member states to come into effect. Within the EU, the COVID-19 pandemic has already helped introduce economic measures that were unthinkable beforehand. A case in point is the EU's recovery plan of 750 billion EUR, known as Next Generation EU, which will for the first time be financed by common debt. Only time will tell whether the COVID-19 pandemic proves to be a similarly decisive factor in reform efforts to reduce profit shifting by multinational corporations (MNCs), but the continuing large-scale tax avoidance as well as aptly timed international negotiations about global minimum taxes make it more likely.

MNCs have been avoiding taxes with the help of tax havens (or profit destinations) for many years and this has been documented for almost as long by a variety of journalists such as the International Consortium of Investigative Journalists' LuxLeaks (2014), Panama Papers (2016), Paradise Papers (2017) as well as researchers. Over the recent years, academic as well as international and non-governmental organisations' researchers have been getting better and better at overcoming the inherent data and methodological challenges of shedding new light on profit shifting by MNCs that is unobservable directly and therefore only indirect and imperfect estimates are possible. For example, a recent report by Phillips et al. (2021) finds

that Luxembourg is at the centre of Amazon's system of globally coordinated losses that help it to avoid paying taxes. But how important is Luxembourg for other large MNCs and, even more importantly, which countries (profit origins) lose out as a result is less clear.

In this study, I focus on which EU member states are most affected by profit shifting of MNCs. What is the scale of profit shifting by MNCs out of the EU member states? And, vice versa, what is the scale of profit shifting by MNCs into the EU member states and, therefore, which are the most important tax havens among the EU member states? In addition, I focus on minimum effective taxation of MNCs and I provide an overview of what can be done about this profit shifting and what are the policies that could be employed by countries in the EU, either at the global, EU or country levels, highlighting the currently discussed global minimum tax rate reform in particular.

In discussing evidence in this study, I rely on the best available estimates for both the scale of profit shifting of MNCs and the impact assessment of a major reform proposal on the EU member states. For the profit shifting evidence, I use the results of Garcia-Bernardo & Janský (2021), who applied the state-of-the-art methods to the country-by-country reporting (CBCR) data, published by OECD (2020a) in July 2020. For the reform proposals, I refer to the best available estimates from a variety of estimates, all three of them using in one way or another the CBCR data: OECD (2020b), Cobham, Faccio, et al. (2021), as well as Barake et al. (2021). In addition to discussing country-level estimates for the EU member states, I point to other relevant literature and ongoing political discussions.

Much of the evidence that I drew on in this study is based on the CBCR data, which in itself came to existing due to improvements in corporate transparency. The EU is the global leader in transparency and, at the same time, not living up to some expectations. A case in point is

that in June 2021 a piecemeal public CBCR for large MNCs has been agreed at the EU level. That an agreement has been reached is glass half full and its piecemeal nature is glass half empty. More generally, is it half full? The EU has been leading internationally in some dimensions of corporate transparency and has pioneered, for example, some form of public CBCR for extractive industries (Janský et al., 2021), financial industries (Murphy et al., 2019, Janský, 2020), and for large MNCs (Garcia-Bernardo & Janský, 2021). Or is it half empty? Only some companies are covered (but increasing over time) and there are loopholes in the standards (but generally getting better over time), maybe this is a road towards a public CBCR at an affiliate level fully aligned with both tax and financial accounting. The EU is also one of the leaders on beneficial ownership (half full by introducing registers, but half empty by not making them public) and other important aspects of financial transparency. To conclude, the progress has been slower than proponents of corporate transparency would like (Cobham et al., 2018), but the progress has been real over the past decade. And I observe similar dynamics – a glass half full or empty – not only in corporate transparency, but also in corporate taxation of MNCs within the EU, the focus of this study.

The current corporate tax system is not fit for the 21<sup>st</sup> century and I present evidence that shows that some EU member states lose out big from this broken system, while other EU member states might find the status quo beneficial. All the biggest EU member states including Germany, France and Italy, are among the biggest losers, while the tax havens of the Netherlands, Ireland and Luxembourg are some of the biggest tax havens and might therefore resist reforms, as could some of the smaller tax havens such as Cyprus. Indeed, the various estimates of minimum effective taxation of MNCs mostly mirror those profit shifting scale estimates. More often than not, the EU member states that lose currently would gain after the reform and, vice versa, i.e. tax havens would no longer be allowed to freeride.

This study is original in at least several aspects. In contrast to most of the empirical studies that I draw on, I focus on the EU, as whole as well as its member states. In line with the profit shifting study of Garcia-Bernardo & Janský (2021) that I draw on, the presented findings exploit the recently published CBCR data and the estimates are able to capture the extremely non-linear relationship between effective tax rates and profits reported. In contrast to existing literature, I explicitly connect the two sides of the same coin: profit shifting and minimum tax rate reform proposals. Consequently, I propose five new lessons for taxing MNCs that connect both profit shifting and reform proposals and that address the importance of profit shifting, tax havens, effective tax rates, exemptions, and distributional consequences

While I provide novel discussions of profit shifting and the EU, the existing literature has already clarified the following facts. Profit shifting of MNCs is real (Beer et al., 2020). The EU member states are among those, from whom MNCs shift profits to tax havens (Álvarez-Martínez et al., 2021). The EU member states are also among tax havens (Zucman, 2014). Profit shifting in Europe has been a focus of earlier (e.g. Huizinga & Laeven, 2008) as well as most recent studies (e.g. Crivelli et al., 2021, Van De Velde & Cannas, 2021). In this study, I highlight the role of the EU member states using the latest evidence base and latest policy developments. How the EU is affected by profit shifting, how it is complicit in profit shifting and what it can do about it.

The evidence I am presenting here is timely and relevant to the ongoing policy developments. The year of the publication of this study, 2021, has a good chance of becoming a special year for corporate taxation. Worldwide, most countries seem to be engaging in global corporate tax reform talks, within various forums, the EU, the United States, the OECD, G7, G20, as well as the 139-country Inclusive Framework at the OECD. The two-pillar proposal for both redistributing some taxing rights and global minimum effective taxation seems to have



support by some leading economies. Within the EU and also in 2021, the EC is announcing new initiatives and new details on old initiatives (European Commission, 2021b), a piecemeal public CBCR regulation has been agreed between the Council and the European Parliament in June 2021 and in the same month the EU Tax Observatory launched (Barake et al., 2021).

Even if the initiatives such as global minimum effective taxation materialise in 2021, there will work left for policy makers as well as researchers. While the estimates presented here build on the best existing evidence, method and data challenges remain and I point to literature discussing these inherent limitations as well as to policies such as a full-fledged public CBCR that would help overcome some of the existing challenges. Even as it is, the existing evidence base points consistently in the same direction. Few countries, tax havens and a minority EU member states, gain from the status quo and would lose out from any meaningful reform. Most other countries, a majority of EU member states, are currently on the losing side – but perhaps not for too much longer.

The rest of the study is structured as follows. In Section 2, I discuss the recent evidence on profit shifting, focusing on the EU member states as both profit origins and profit destinations. In Section 3, I discuss recent policy developments, focusing on the global minimum effective taxation of MNCs. Also in Section 3, I propose five lessons for taxing MNCs that relate to both profit shifting and minimum rate reforms. In Section 4, I provide concluding remarks.

## **2 Evidence of profit shifting**

Among the EU member states, there are both tax havens (profit destinations) and countries that are harmed by profit shifting (profit origins or countries from which profits are shifted to tax havens). In describing the scale and distribution of profit shifting of MNCs, I rely on

recently circulated estimates that rely at one of the best available datasets and one of the best available methodologies, which I briefly describe in the following subsection.

## **2.1 Profit shifting estimation methodology**

Specifically, in this study I use new estimates of profit shifting to low-tax jurisdictions, or tax havens or profit destinations, that were made available earlier in this year in a working paper by Garcia-Bernardo & Janský (2021), which contains a detailed description of the data and methodology, including their limitations. The estimates have a number of advantages. First, in addition to the tax semi-elasticity methodology developed and refined by, among others, Hines & Rice (1994) and Dowd et al. (2017), they provide results of the misalignment methodology, which I use in this study because it better captures the countries harmed by profit shifting as that is the focus of this study. Second, the estimates are derived from the CBCR data for large MNCs published for the first time by OECD (2020b) in July 2020. Although the CBCR data are not perfect, it has been shown to be superior to other datasets in some important characteristics such as country coverage (Garcia-Bernardo et al., 2021). Indeed, these estimates are exceptional in covering around 190 countries for the year 2016 and enable thus an international comparison including those between the EU and the rest of the world as well as within the EU member states.

Although the underlying academic research by Garcia-Bernardo & Janský (2021) makes progress on several challenges of the existing literature, it has not overcome all of them. For example, profit shifting itself is still inherently unobserved and the methodology and data have their weaknesses, discussed in detail in the yet-to-be-peer-reviewed working paper by Garcia-Bernardo & Janský (2021), on which only future research might be able to make substantial progress. A case point is the data – the CBCR data are a step forward in

information about activities of MNCs, but they have a number of limitations that are discussed by Garcia-Bernardo & Janský (2021) or other authors including those at the OECD that circulated the data. Also, for tax revenue losses, further assumptions about the tax rates to be applied to any shifted profits are needed. Overall, it is therefore important to keep in mind that the presented evidence is based on estimates only in particular when interpreting results for specific countries.

The results discussed in this study are based on estimates as presented in Tables A6 and A7 in the Appendix of the working paper by Garcia-Bernardo & Janský (2021). These results are based on applied the profit misalignment methodology to the CBCR data. The profit misalignment methodology calculates a potential scale of profit shifting as the difference between reported profits (observed in the data) and estimated theoretical profits, which is approximated with the location of economic activity (25% of the weight to employees, 25% of the weight to wages, and 50% of the weight to unrelated party revenues). Specifically, for profit origins we rely on the following indicators: profit shifted out (million USD, % of global total and % of GDP) and the related tax revenue losses (million USD and % of corporate tax revenue). Similarly, for profit destinations we rely on the following indicators: profit shifted in (million USD, % of global total and % of GDP) and the related tax revenue gains (million USD and % of corporate tax revenue). The original research results by Garcia-Bernardo & Janský (2021) are expressed in US dollars and, when I discuss the estimated values in euros for illustrative purposes, I use the spot exchange rate of 1.0541 US dollar to euro reported by the European Central Bank for 30 December 2016.

## **2.2 Results for the European Union member states**

Some of the biggest tax havens (profit destinations) as well as countries that are harmed by profit shifting (profit origins) worldwide are EU member states. The results for EU member states are displayed in Tables 1 and 2 as well as Figures 1, 2, 3 and 4.

**Table 1. Profit shifting estimates for profit origin EU member states**

Country	Profit shifted out (million USD)	Profit shifted out (% of global total)	Profit shifted out (% GDP)	Tax revenue loss (million USD)	Tax revenue loss (% total tax revenue)	Tax revenue loss (% corporate tax revenue)
Germany	101907	10.25	2.75	20585	2.43	30.95
France	91048	9.16	3.38	17572	2.31	27.45
Italy	50226	5.05	2.46	8137	1.32	17.86
Poland	19654	1.98	3.68	2024	1.87	20.04
Spain	10569	1.06	0.78	1131	0.39	3.87
Romania	7947	0.80	3.57	890	2.16	18.78
Belgium	7217	0.73	1.41	671	0.43	4
Portugal	3501	0.35	1.55	718	1.29	10.4
Austria	2301	0.23	0.54	175	0.15	1.88
Greece	1526	0.15	0.68	262	0.46	7.58
Slovakia	1506	0.15	1.53	264	1.53	8.81
Czechia	1249	0.13	0.57	76	0.18	1
Lithuania	947	0.10	1.99	162	2.03	25.15
Latvia	817	0.08	2.67	34	0.55	7.1
Slovenia	799	0.08	1.62	80	0.74	10.95
Estonia	626	0.06	2.35	1	0.02	0.29
Malta	331	0.03	2.78	18	0.58	2.52
Finland	111	0.01	0.04	9	0.01	0.14
EU (total or average)	302282	30.4	1.9	52809	1	11

*Source: Author on the basis of estimates by Garcia-Bernardo & Janský (2021).*

*Notes: Potential base for profit origin countries is the sum of profit reported and profit shifted. The totals are sums of positive values only.*

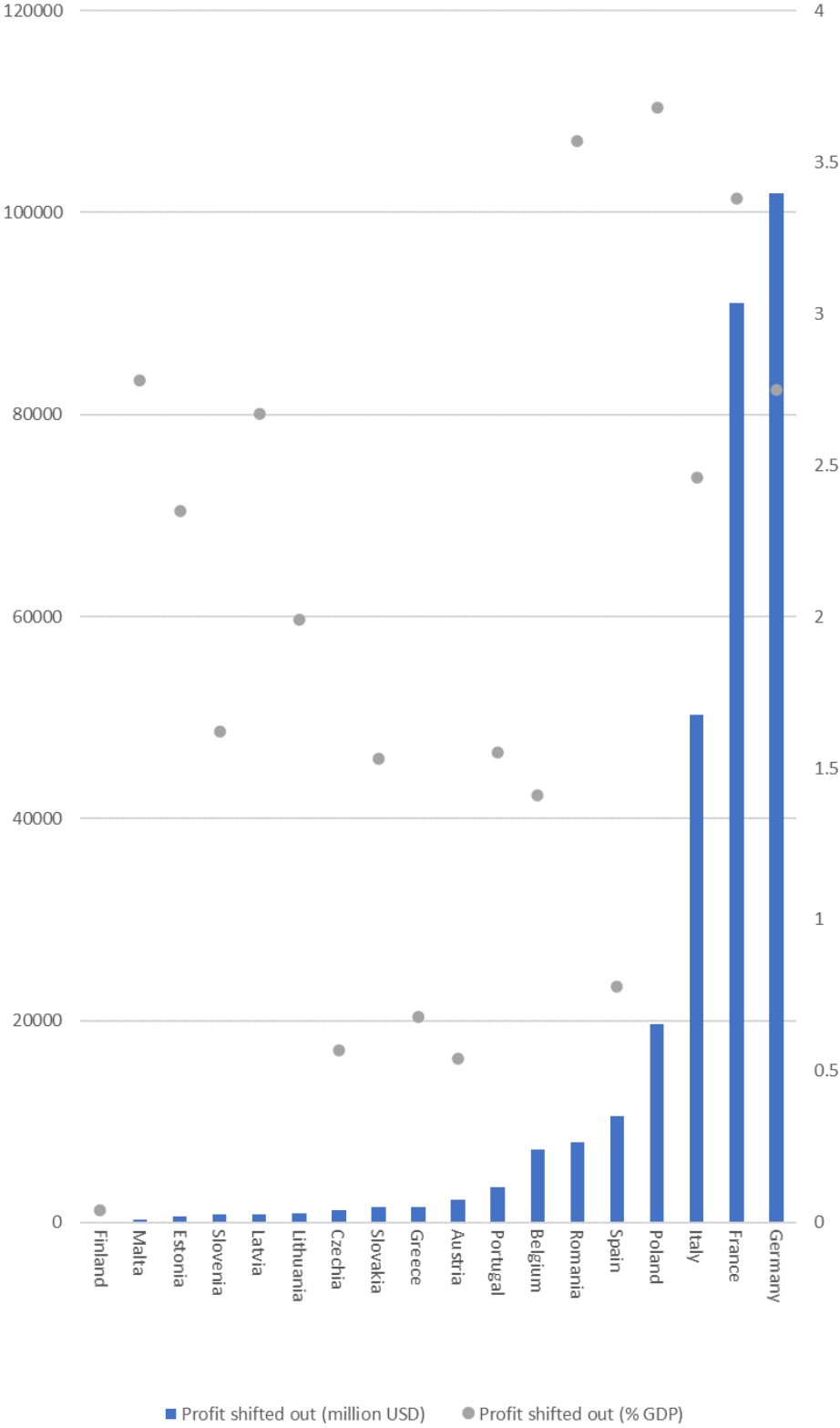
**Table 2. Profit shifting estimates for profit destination EU member states**

Country	Profit shifted in (million USD)	Profit shifted in (% of global total)	Profit shifted in (% GDP)	Tax revenue gain (million USD)	Tax revenue gain (% total tax revenue)	Tax revenue gain (% corporate tax revenue)
Netherlands	140896	14.19	16	6904	4	31
Ireland	28062	2.83	9	2273	4	30
Luxembourg	17536	1.77	27	316	2	10
Sweden	12796	1.29	2	973	1	6
Denmark	6483	0.65	2	960	1	11
Cyprus	4243	0.43	18	93	2	7
Hungary	3799	0.38	3	122	0	5
Croatia	744	0.07	1	28	0	2
Bulgaria	24	0.00	0	0	0	0
EU (total or average)	214583	21.6	8.8	11669	1.4	11.4

*Source: Author on the basis of estimates by Garcia-Bernardo & Janský (2021).*

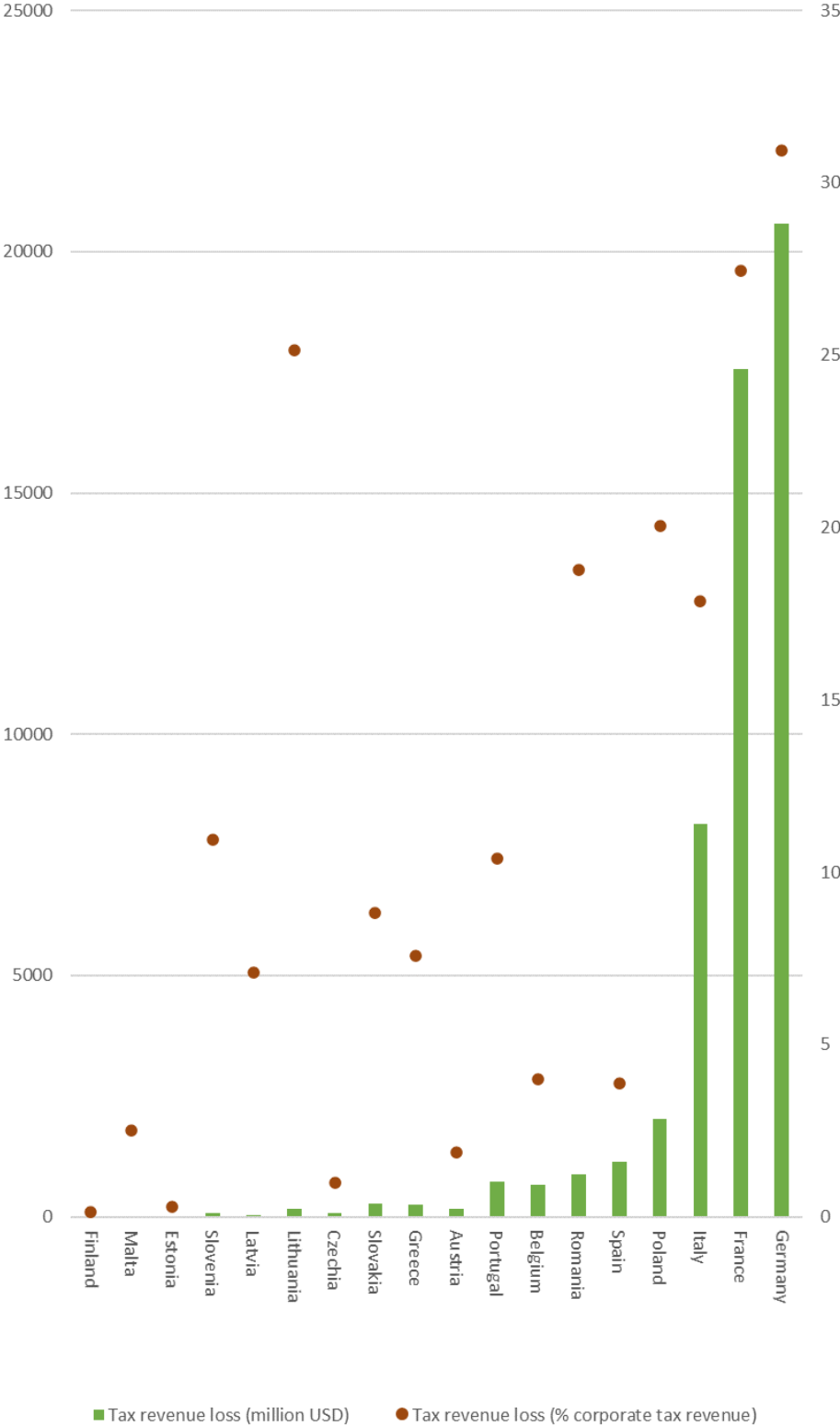
*Notes: The totals are sums of positive values only.*

**Figure 1: Profit origins worldwide, results only for EU member states displayed**



Source: Author on the basis of estimates by Garcia-Bernardo & Janský (2021).

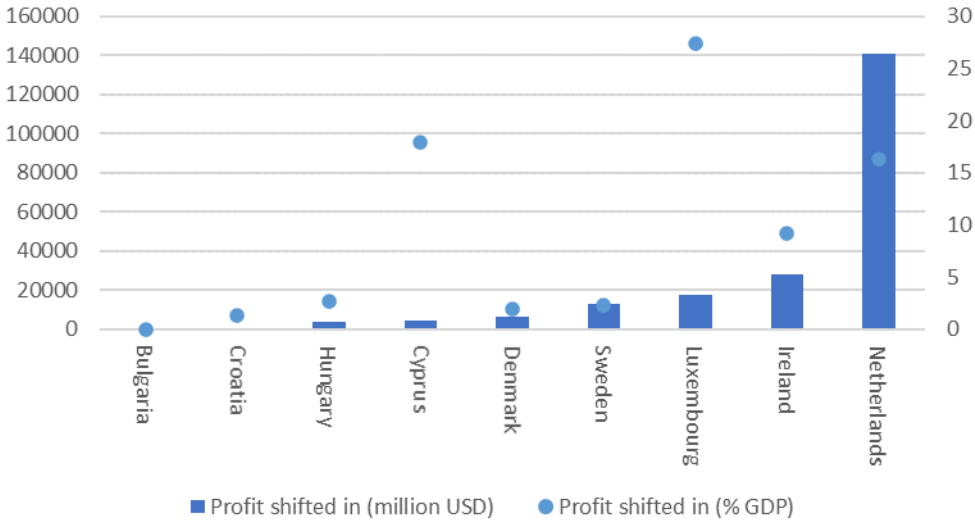
**Figure 2: Profit origins worldwide, results only for EU member states displayed**



Source: Author on the basis of estimates by Garcia-Bernardo & Janský (2021).

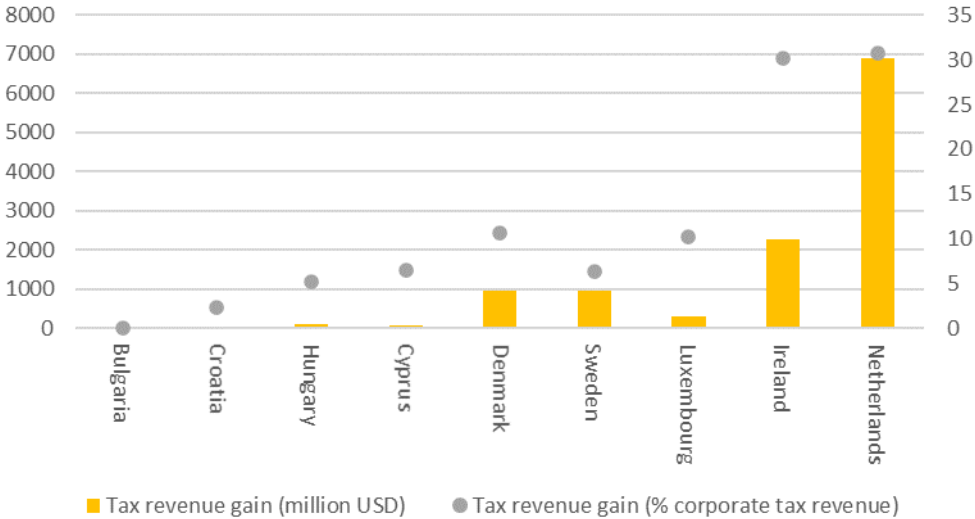


**Figure 3: Profit destinations worldwide, results only for EU member states displayed**



Source: Author on the basis of estimates by Garcia-Bernardo & Janský (2021).

**Figure 4: Profit destinations worldwide, results only for EU member states displayed**



Source: Author on the basis of estimates by Garcia-Bernardo & Janský (2021).

Out of the almost one trillion in profits shifted to tax havens worldwide, almost 30% – or 302 billion USD (or 287 billion EUR) – has been shifted from EU member states, most of them being negatively affected regardless of their histories or geographies or other differences. In absolute value, Germany (102 billion USD or 97 billion EUR of profits shifted out) and France (91 billion USD or 86 billion EUR) are, after the United States, the second and third largest profit origins. Some of the largest economies in the EU are among the top five profit origins of profit shifting worldwide (in addition to Germany and France, it is Italy with 50 billion USD or 48 billion EUR of profits shifted out), with Poland (20 billion USD or 19 billion EUR) and Spain (11 billion USD or 10 billion EUR) in the top twenty worldwide (and top five among the EU member states). The size of these countries' economies is behind their biggest profit shifting scales, while for Germany and France it is also the intensity of profit shifting that is large (Table 1).

Relative to the size of their economies, Poland (3.7% of GDP), Romania (8 billion USD or 8 billion EUR or 3.6% of GDP) and France (3.4% of GDP) had a lot profit shifted out of their countries, corresponding in value to more than 3% of their GDP (Table 1 and Figure 1). Germany (21 billion USD or 20 billion EUR or 31% of corporate tax revenue), France (18 billion USD or 17 billion EUR or 27% of corporate tax revenue), Lithuania (0.2 billion USD or 0.2 billion EUR or 50% of corporate tax revenue) and Poland (2 billion USD or 2 billion EUR or 20% of corporate tax revenue) and endured losses of more than 20% of their corporate tax revenues (Table 1 and Figure 2).

Out of the almost one trillion in profits shifted to tax havens worldwide, 22% – or 215 billion USD – has been shifted to tax havens that are EU member states. By far, the Netherlands (140 billion USD or 134 billion EUR of profit shifted in) is the most important tax haven among the EU member states, followed by Ireland (28 billion USD or 27 billion EUR) and

Luxembourg (18 billion USD or 17 billion EUR). For these three EU member states, as well as for Cyprus (4 billion USD or 4 billion EUR), the profit shifted to them correspond to around 10% of their GDP or more (Table 2 and Figure 3). Hungary (4 billion USD or 4 billion EUR) is much less important tax haven according to the evidence, but has currently the lowest statutory corporate tax rate in the EU (9%) and, similarly to Cyprus and other tax havens, has been making arguments against minimum tax rate reform proposals. Some of these country-specific quantitative results are consistent with some qualitative country-specific observations made by the European Commission (2021) in its Annual Report on Taxation published in May 2021. Less consistent with other studies, including the one by Tørsløv et al. (2020), is the identification of two high-tax countries of Sweden (13 billion USD or 12 billion EUR) and Denmark (6 billion USD or 6 billion EUR) as profit destinations and I leave for further research how much this paradoxical identification is driven by the reality or data and methodology limitations.

In addition to EU member states, Europe is home to other important tax havens: Switzerland (52 billion USD or 49 billion EUR of profits shifted in) and British overseas territories and crown dependencies of the United Kingdom, including Gibraltar (30 billion USD or 28 billion EUR), Jersey (28 billion USD or 26 billion EUR) and Isle of Man (24 billion USD or 22 billion EUR). The United Kingdom itself could try to become a more important profit destination (at the moment it is to some extent both a profit origin, as in our estimates, and a profit destination) with the help of its overseas territories and crown dependencies, in particular following its exit from the European Union. At the moment, it is too soon to tell the importance of the United Kingdom in profit shifting for the EU after Brexit and an important determinant is going to be any international corporate tax reform agreed or not in the near future and discussed in the following section.

Despite the importance of the EU's tax havens, the EU is losing more profit than it gains (30% vs 22%). When summed up across the EU member states, 302 billion USD (287 billion EUR) are shifted out of the EU yearly, while 215 billion USD (204 billion EUR) are shifted in. The difference is even starker when expressed in the estimated tax revenues: the EU is losing 12 billion USD (11 billion EUR) while gaining 53 billion USD (50 billion EUR). The bigger difference in estimated tax revenue than in profit shifting is due to the fact that, almost by definition, the shifted profits are taxed at a lower rate in their destination than if they were at their origin. For example, Cayman Islands tax shifted profits at zero rate, whereas profits would be taxed at higher rates in basically all countries from which they were shifted out. At least in corporate tax avoidance, losers lose more than winners win.

It is reassuring that, while the this discussion is based on estimates only, with data and methodology limitations as discussed above and in detail by Garcia-Bernardo & Janský (2021), these estimates are broadly consistent with other recent estimates including those by Tørsløv et al. (2020) updated for 2017 and available online (<https://missingprofits.world/>). I provide a detailed comparison for EU members states below and they are broadly in line with each other, which is consistent with a similar worldwide comparison by Garcia-Bernardo & Janský (2021). Still, for individual countries, the uncertainty might be high – a case in point is Germany, for which Garcia-Bernardo & Janský (2021) estimate a tax revenue loss of 20.6 billion USD, while Tørsløv, T., Wier, L., & Zucman, G. (2020) arrive at a very similar tax revenue loss of 19.6 billion USD. In contrast, in a recent Germany-focused study using the confidential CBCR data, Fuest et al. (2021) estimate a tax revenue loss of only 5.7 billion EUR (ca 6 billion USD). While it is difficult to decompose differences between estimates in cases like these, the differences in data and methodology are likely to be responsible for the diverging estimates.

**Table 3. Comparison of estimates of profit shifting scale for the EU member states**

Source	Profit shifting – origin (billion USD)	Revenue – loss – origin (billion USD)	Number of EU member states – origin	Profit shifting – destination (billion USD)	Number of EU member states – destination	Year
Garcia-Bernardo & Janský (2021)	302	53	18	215	9	2016
Tørsløv et al. (2020)	192	43	17	303	5	2017

*Source: Author on the basis of the cited sources.*

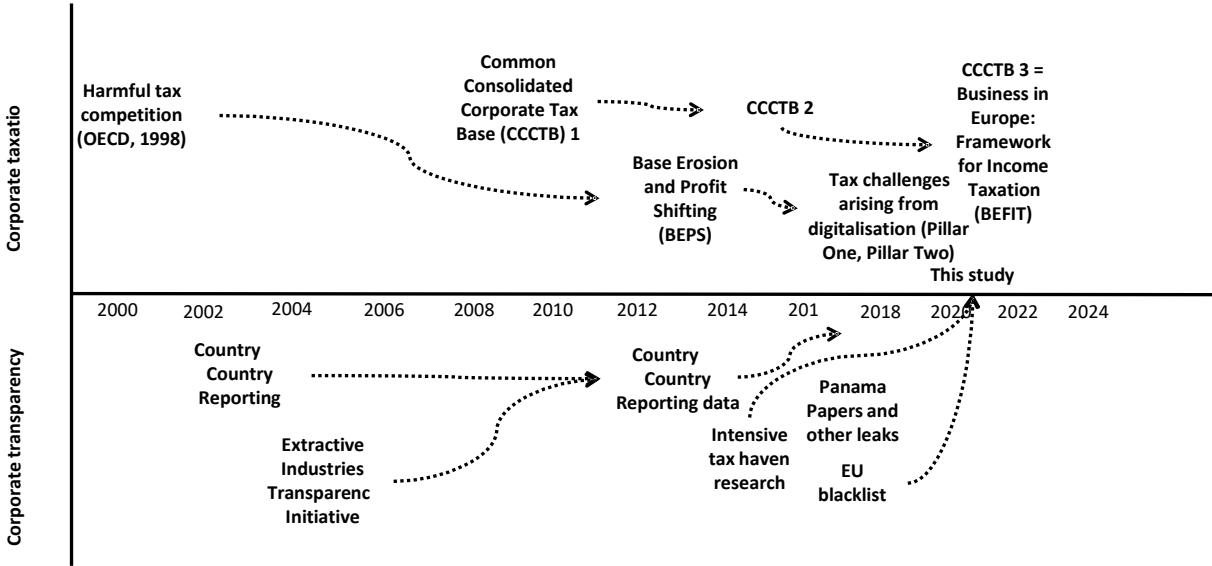
*Notes: Some profit shifting studies such as Crivelli et al. (2016) or Bolwijn et al. (2018) do not include country-level estimates and therefore estimates for the EU member states only cannot be inferred from them.*

### **3 Policy responses to profit shifting and minimum tax rate reforms**

Governments in the EU can counter profit shifting through policies that are currently being discussed at either global, EU or country levels. While most of them would likely lead to lower tax avoidance and higher government revenues worldwide, coming closer to a level playing field for companies and government worldwide will likely take longer and more than one proposal. For the EU, the European Commission (2021b) published its proposals on 18 May 2021, which includes a promise to propose in the near future a third version, at least in my interpretation and counting, of the CCCTB (Cobham, Janský, et al., 2021), which, after CCCTB 1 (2011) and CCCTB 2 (2016) is going to be called BEFIT (Business in Europe: Framework for Income Taxation). Also, European Commission (2021b) will propose in July 2021 new own resources financing the EU budget, which will include a digital levy (focused on digital companies and possibly co-existing with the OECD's Pillar One) as well as other proposals not directly related to corporate income taxation (Carbon Border Adjustment Mechanism, CBAM, and Revised EU Emissions Trading System, ETS). It might also propose additional new own resources later such as a Financial Transaction Tax and an own resource linked to the corporate sector European Commission (2021b, p. 5).

The debate about corporate tax reform has clearly intensified over the past couple of decades, as indicated in Figure 5, which captures some of the most important developments in corporate taxation and transparency with the focus on the EU. These developments during the past few years are often global and include the emergence of CBCR as an important transparency tool and the OECD's work on Pillar One and Pillar Two. Indeed, in addition to EU-wide proposals country-specific policies such as digital services taxes, there are, even more importantly, proposals for global reforms.

**Figure 5: Selected developments in corporate taxation and corporate transparency, focused on the EU**



*Sources: Author on the basis of Seabrooke & Tsingou (2019) and Laage-Thomsen & Seabrooke (2021).*

The most significant discussions are currently taking place on the global stage with the contribution of the EU and its member states about a two-pillar proposal. Pillars One and Two are coordinated by the OECD, which has started some of the still ongoing discussions with its 1998 report on harmful tax competition and launched its Base Erosion and Profit Shifting (BEPS) project in 2013 the current proposals relate to tax challenges arising from digitalisation. Pillar One aims to redistribute taxing rights to market jurisdictions, for example, where the MNCs’ customers or users reside. Pillar One is relatively small (OECD,

2020b), by OECD's estimates, it would lead to just about 5-12 billion USD in tax revenue gains (or about 0.2%-0.5% of global corporate tax revenues) and that was before the US administration proposed to focus it on only about 100 biggest MNCs. If Pillar One was to apply to all large MNCs and all of the profits were redistributed (whereas now only a slice profit above some high profit margin is being discussed), Pillar One could in theory be an extremely important change. But as it stands, Pillar One is not very promising. Instead, Pillar Two about global minimum effective taxation could have more substantive implications for government revenues as well as tax competition worldwide.

The proposal for global minimum effective taxation of MNCs' profits could lower tax avoidance and curb tax competition. While it could increase administrative costs and limit countries' tax policy choices (including the use of tax incentives) and, depending on the extent of exemptions, MNCs could find new loopholes to get around the new rules, a reduction in profit shifting seems to be a likely outcome. The currently discussed proposals assume the minimum rate's application in each jurisdiction separately (in contrast to the US GILTI's application to the rest of the world as a whole) and this so-called jurisdictional blending is one of the important building blocks that would make the reform effective. The tax rate is obviously another important parameter and the currently discussed rate of at least 15% (by G7, the US proposed originally 21% and the ICRICT proposed 25%) might be too low and, indeed, the higher the rate the more impact the reform is going to have.

There are at least three publicly available studies of estimating the impact of global minimum effective taxation proposals and each of them uses the CBCR data: OECD (2020b), Cobham, Faccio, et al. (2021), and Barake et al. (2021). OECD (2020b) are the most official publicly available estimates, although they provide results only for country groups rather than individual countries as the other two studies. EU Tax Observatory's Barake et al. (2021)



provide country-level estimates, as do Cobham, Faccio, et al. (2021), who compare the OECD proposal for Pillar Two with an alternative proposal, Minimum Effective Tax Rate (METR). n compliance and administration cost

All of these three studies – OECD (2020b), Cobham, Faccio, et al. (2021), and Barake et al. (2021) – consistently point to tax havens losing from a global minimum effective taxation reform and most other countries gaining in corporate income tax revenues. The higher the rate, the higher the gains. In addition, METR in general provides higher revenue gains to lower income countries. Recently, a new study addresses how to implement any minimum tax rate reform in the EU. Becker & Englisch (2021) discuss in much detail how the EU member states could go about implementation of the reform and what EU-specific challenges they would face. For example, they identify the ECJ jurisdiction on the freedom of establishment as an important legal hurdle that could prevent the minimum tax from being implemented or render it meaningless.

### **3.1 The five lessons for taxing multinational corporations**

Profit shifting of MNCs and the reforms that counter it are, more often than not, the two sides of the same coin and why I draw five lessons jointly for both. The five lessons for taxing MNCs address the importance of profit shifting, tax havens, effective tax rates, exemptions, and distributional consequences. On the hand, MNCs are shifting their profits to tax havens with extremely low effective tax rates, enabled by various exemptions and loopholes that leave most of the world, and lower income countries in particular, worse off. On the other hand, a minimum effective tax rate reform can substantially lower profit shifting to tax havens as long as the minimum effective tax rate is high enough, exemptions from the new rules are

non-consequential or absent and distributional effects of the new reform are managed in a way that makes it beneficial for most countries worldwide.

The five lessons for taxing MNCs are as follows:

1. **Profit shifting** of MNCs is a large tax avoidance problem for most European Union member states. Consequently, their tax revenues are lower and companies that do not shift profits to tax havens are disadvantaged. Minimum tax rate reforms could mitigate these challenges, but the devil is in the details.
2. **Tax havens** are, alongside the MNCs and intermediaries enabling the tax avoidance, among the biggest beneficiaries of the status quo. If the reforms are substantial, they should also be the biggest losers from the reforms. Some of the EU member states are tax havens, but the EU member states as a group are losing currently and would benefit from the reforms.
3. **Effective tax rate** is crucial for profit shifting and minimum tax rate reforms aimed at countering it. MNCs shift profits to tax havens with extremely low effective tax rates. And, generally, the higher the agreed rate in any minimum tax rate reform, the higher the chance that the reform will reduce profit shifting. I highlight that tax revenue losses are much higher than gains, for the EU as well as worldwide, because usually the tax losses were to be taxed at much higher effective tax rates than the tax gains in tax havens are.
4. **Exemptions** are crucial for profit shifting as well as any reform. Exemptions from the current tax rules, in particular those eroding the corporate tax base such as tax holidays or tax incentives, are one of the reasons why effective tax rates are in some tax havens

substantially lower than statutory rates. In case there are important exemptions in the reforms, it might make any reform much less impactful.

5. **Distributional consequences** of profit shifting as well as any reform are crucial. The biggest economies are almost by definition the biggest losers from profit shifting in absolute values. Relative to their economic activity, lower income countries tend to lose more in profit shifting. In case headquarter countries are preferred by the reform, this will have distributional consequences – positive for these usually high income countries and negative for other countries including most lower income countries.

## 4 Conclusion

Tax avoidance by MNCs affects negatively at least two thirds of the EU member states and in this study I use evidence from a recent research paper to highlight which countries likely lose most government tax revenue. While some bigger (e.g. Germany) as well as smaller (e.g. Lithuania) EU member states see a large portion of profits being shifted to tax havens, some of the tax havens are the EU member states, too. Altogether, the EU as whole loses out due to profit shifting. While the tax havens might not be numerous in the EU – Luxembourg, the Netherlands, Ireland and Cyprus and perhaps a couple more – they do command a lot of power, at least as long as tax issues are commanded by unanimity rules within the Council. The European Commission launched debate on a gradual transition to more efficient and democratic decision-making in EU tax policy in 2019 and made the case against unanimity, which often cannot be achieved on crucial tax initiatives, and can lead to costly delays and sub-optimal policies. Still, there does not seem to be unanimity on this unanimity proposal itself any time soon. Outside pressure, for example in the form of global tax negotiations, might thus be what is needed for a tax reform affecting the EU including the tax havens among its member states.

There is a once-in-a-long-time opportunity to agree on a reform of minimum effective taxation of MNCs that would bring perhaps the biggest change to the corporate tax system in a century. The question is whether the reform will be sufficiently well-designed to reverse the unfair status quo of profit shifting so that tax havens lose out, while other countries gain from the reform. While all the currently discussed minimum tax rate reform proposals claim to turn the tables in this way, there are important differences to what extent the individual proposals address the glaring inequalities of the status quo, most crucially in which countries would benefit. The OECD and US and G7 proposals would benefit the countries in which MNCs are

headquartered much more than other countries, whereas the Minimum Effective Tax Rate (METR) proposal would benefit all the countries in which the MNCs are economically active. The latter proposal therefore seems most promising from the perspective of most countries worldwide, but seems to have hardly any chance as long as the political process is in effect driven by the United States and other G7 countries that have more than a fair share of MNCs headquartered in them. Even if the reform is agreed in 2021, creating a level playing field for both companies and government worldwide is likely to take longer.

## 5 References

- Álvarez-Martínez, M. T., Barrios, S., d'Andria, D., Gesualdo, M., Nicodème, G., & Pycroft, J. (2021). How large is the corporate tax base erosion and profit shifting? A general equilibrium approach. *Economic Systems Research*, 1–32.
- Barake, M., Neef, T., Chouc, P.-E., & Zucman, G. (2021). Collecting the tax deficit of multinational companies: Simulations for the European Union. *EU Tax Observatory*.
- Becker, J., & Englisch, J. (n.d.). *Effective Minimum Tax Rate Implementation in the EU: Why and how*.
- Beer, S., De Mooij, R., & Liu, L. (2020). International corporate tax avoidance: A review of the channels, magnitudes, and blind spots. *Journal of Economic Surveys*, 34(3), 660–688. <https://doi.org/10.1111/joes.12305>
- Bolwijn, R., Casella, B., & Rigo, D. (2018). An FDI-driven approach to measuring the scale and economic impact of BEPS. *Transnational Corporations*, 25(2), 107–143. <https://doi.org/10.18356/c4f9fd3c-en>
- Cobham, A., Faccio, T., Garcia-Bernardo, J., Janský, P., Kadet, J., & Picciotto, S. (2021). A Practical Proposal to End Corporate Tax Abuse: METR, a Minimum Effective Tax Rate for Multinationals. *Working Papers IES*, 08/2021. [https://ideas.repec.org/p/fau/wpaper/wp2021\\_08.html](https://ideas.repec.org/p/fau/wpaper/wp2021_08.html)
- Cobham, A., Janský, P., Jones, C., & Temouri, Y. (2021). An evaluation of the effects of the European Commission's proposals for the Common Consolidated Corporate Tax Base. *Transnational Corporations*, 28(1), 29.
- Cobham, A., Janský, P., & Meinzer, M. (2018). A half-century of resistance to corporate disclosure. *Transnational Corporations*, 25(3), 1–26.

- Crivelli, E., De Mooij, R., De Vrijer, E., Hebous, S., & Klemm, A. (2021). Taxing Multinationals in Europe. *IMF*, 2021(12).  
<https://www.imf.org/en/Publications/Departmental-Papers-Policy-Papers/Issues/2021/05/25/Taxing-Multinationals-in-Europe-50129>
- Crivelli, E., de Mooij, R., & Keen, M. (2016). Base Erosion, Profit Shifting and Developing Countries. *FinanzArchiv: Public Finance Analysis*, 72(3), 268–301.  
<https://doi.org/10.1628/001522116X14646834385460>
- Dowd, T., Landefeld, P., & Moore, A. (2017). Profit shifting of U.S. multinationals. *Journal of Public Economics*, 148, 1–13. <https://doi.org/10.1016/j.jpubeco.2017.02.005>
- European Commission. (2021a). *Annual Report on Taxation 2021 Review of taxation policies in the EU Member States*. European Commission. <https://op.europa.eu/en/publication-detail/-/publication/db46de2a-b785-11eb-8aca-01aa75ed71a1/language-en>
- European Commission. (2021b). *Business Taxation for the 21st Century*. [https://ec.europa.eu/taxation\\_customs/sites/taxation/files/communication\\_on\\_business\\_taxation\\_for\\_the\\_21st\\_century.pdf](https://ec.europa.eu/taxation_customs/sites/taxation/files/communication_on_business_taxation_for_the_21st_century.pdf)
- Fuest, C., Hugger, F., & Neumeier, F. (2021). Corporate profit shifting and the role of tax havens: Evidence from German CbC reporting data. *CESifo Working Paper*.
- Garcia-Bernardo, J., & Janský, P. (2021). Profit Shifting of Multinational Corporations Worldwide. *Working Papers IES*, 14/2021, 1–76.
- Garcia-Bernardo, J., Janský, P., & Tørsløv, T. (2021). Multinational corporations and tax havens: Evidence from country-by-country reporting. *International Tax and Public Finance*. <https://doi.org/10.1007/s10797-020-09639-w>
- Hines, J. R., & Rice, E. M. (1994). Fiscal Paradise: Foreign Tax Havens and American Business. *Quarterly Journal of Economics*, 109(1), 149–182.  
<https://doi.org/10.2307/2118431>

- Huizinga, H., & Laeven, L. (2008). International profit shifting within multinationals: A multi-country perspective. *Journal of Public Economics*, 92(5), 1164–1182.  
<https://doi.org/10.1016/j.jpubeco.2007.11.002>
- Janský, P. (2020). European banks and tax havens: Evidence from country-by-country reporting. *Applied Economics*, 52(54), 5967–5985.  
<https://doi.org/10.1080/00036846.2020.1781773>
- Janský, P., Stausholm, S., & Šedivý, M. (2021). Transparency just for show? Evaluating country-by-country reporting data in the extractive industries. *Mimeo*.
- Laage-Thomsen, J., & Seabrooke, L. (2021). Actors and Authority in the International Tax Ecosystem. In *Combating Fiscal Fraud and Empowering Regulators* (pp. 9–34). Oxford University Press.
- Murphy, R., Janský, P., & Shah, A. (2019). BEPS Policy Failure—The Case of EU Country-By-Country Reporting. *Nordic Tax Journal*, ahead-of-print.  
<https://doi.org/10.1515/ntaxj-2019-0005>
- OECD. (2020a). *Corporate Tax Statistics Database*.  
<https://www.oecd.org/tax/beps/corporate-tax-statistics-database.htm>
- OECD. (2020b). *Tax Challenges Arising from Digitalisation – Economic Impact Assessment*.  
<https://www.oecd.org/tax/beps/tax-challenges-arising-from-digitalisation-economic-impact-assessment-0e3cc2d4-en.htm>
- Phillips, R., Pyle, J., & Palan, R. (2021). *The Amazon Method: How to take advantage of the international state system to avoid paying tax*.  
<https://www.guengl.eu/content/uploads/2021/05/THEamazonMETHOD-1.pdf>
- Seabrooke, L., & Tsingou, E. (2019). Europe’s fast-and slow-burning crises. *Journal of European Public Policy*, 26(3), 468–481.



Tørsløv, T., Wier, L., & Zucman, G. (2020). The Missing Profits of Nations. *National Bureau of Economic Research Working Paper*, 2018, revised April 2020(24071).  
<http://www.nber.org/papers/w24701>

Van De Velde, E., & Cannas, F. (2021). *Harmful tax practices within the EU: definition, identification and recommendations*. 46.

Zucman, G. (2014). Taxing across borders: Tracking personal wealth and corporate profits. *Journal of Economic Perspectives*, 28(4), 121–148.  
<https://doi.org/10.1257/jep.28.4.121>

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