Unpacking the OECD Two-Pillar Solution

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Abstract

This note examines the OECD's Two Pillar Solution International tax initiatives, presenting a general overview of both Pillars and focusing on clarifying their mechanism. Pillar Two establishes a global minimum tax of 15% for MNEs with revenues over EUR 750 million, using the Income Inclusion Rule (IIR), Qualified Domestic Minimum Top-up Tax (QDMTT), and Undertaxed Payments Rule (UTPR) to prevent the race to the bottom in corporate tax rates. Pillar One reallocates residual profits of the largest MNEs to market jurisdictions based on the final user location, to adapt the outdated tax system to the digital economy. The rules for each Pillars are explored with case study examples to explore factors influencing revenues such as carve-outs and tax credits for Pillar Two and the reallocation rules and elimination of double taxation for Pillar One. While Pillar Two has started to be implemented in several countries, Pillar One faces challenges and resistance from key countries, potentially limiting its effectiveness. This could lead to the rise of Digital Service Taxes (DSTs).

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Introduction

With the digitalization and globalization of the economy, it has become easier for multinational enterprises (MNEs) to evade taxes by shifting profits to low-tax countries. Governments have struggled to tax the digital economy effectively, as the international tax system has become outdated. Recognizing these challenges, the OECD released a report in 2015 titled "Addressing the Tax Challenges of the Digital Economy, Action 1," as part of the BEPS (Base Erosion and Profit Shifting) initiative. This report highlighted the significant issues arising from the digital economy.

Over time, the initial focus on the digital economy evolved into a broader framework, leading to the development of the Two-Pillar Solution. This wider approach addressed corporate tax rates of MNEs and aimed to redistribute excess profits to countries where the final consumers are located. The transition to this more extensive framework concluded in October 2020, with the release of the Pillar One and Pillar Two blueprints and the OECD's Economic Impact Assessment (see OECD, 2020). Significant milestones followed. In July 2021, over 130 members of the Inclusive Framework (IF) reached a first joint statement, outlining the major components of the Two-Pillar Solution. A second joint statement in October 2021 provided further clarification on the design and implementation of Pillar Two, including the agreement on a 15% minimum global tax rate.

As the development of the Two-Pillar Solution progressed, Pillar Two, which introduces a global minimum tax, gained more attention and momentum. This approach mirrors the Global Intangible Low-Taxed Income (GILTI) regime introduced by the USA in the 2017 Tax Cuts and Jobs Act (TCJA), which imposed a top-up tax on US MNEs operating in foreign countries ranging from 10.5 to 13%. In December 2022, EU Member States adopted a directive implementing Pillar Two Global Minimum Tax rules, prompting several other countries to follow. In contrast, Pillar One, aimed at reallocating taxing rights to market jurisdictions, faced delays due to political disagreements. However, the design of the rules was refined, and a Multilateral Convention (MLC) was finalized in October 2023, marking a significant step forward in addressing the taxation challenges of the digital and globalized economy (see OECD, 2023).

This note provides an in-depth analysis of the Two-Pillar Solution, outlining its scope, current developments, factors influencing potential revenues, and broader implications. Illustrative examples are presented for both Pillars to clarify the mechanisms behind it. This work does not present revenue estimates for the Pillars. For revenue estimations, refer to Barake et al (2022) and the Global Tax Evasion Report 2024 on Pillar Two estimates and to Barake and Le Pouhaer (2024) and O'Reilly et al (2023) on Pillar One estimates. The discussion begins with Pillar Two, given that its implementation is already underway in several jurisdictions, including the EU. Multiple factors, such as carve-outs, tax credits, and the application of the Undertaxed Payments Rule (UTPR), impact the revenue potential of the minimum tax. Pillar Two's implementation could lead to shifts in the location of labor and assets within multinational enterprises (MNEs) to benefit from carve-outs. However, it also imposes higher compliance costs on MNEs and, in some cases, could create disparities in tax treatment between domestic and foreign MNEs, as the minimum tax generally applies to MNEs with foreign affiliates (in the EU, the tax applies to both domestic and foreign MNEs, though this may vary in other

jurisdictions). It is anticipated that governments will adjust their tax credits in alignment with the OECD guidelines, as the treatment of tax credits influences the effective tax rate calculation and, consequently, the tax burden on MNEs. While the global minimum tax may not fully eliminate profit shifting, it is expected to significantly reduce it by limiting extremely low tax rates, particularly those close to zero, under Pillar Two rules.

The second part of this note addresses Pillar One, despite its implementation remaining a work in progress. Nevertheless, Pillar One constitute an concrete example of international effort toward formulary apportionment. Key elements impacting its revenue potential include covered group thresholds, the definition of Amount A, the Marketing and Distribution Safe Harbour, the Nexus test, and tail-end revenues. A critical implication of the non-introduction of Pillar One is the rise of Digital Services Taxes in various countries to tax revenue from the digital economy.

Pillar Two: The Global Minimum Tax

1. Context

The OECD's Pillar Two introduces a global minimum tax aimed at ensuring that multinational enterprises (MNEs) pay a minimum level of 15% of where they operate. This policy seeks to curb profit shifting and base erosion by setting a floor for tax competition among countries.

Scope

MNE's with consolidated revenues exceeding EUR 750 million.

Tax Base

Profits from which substance based carve-outs (a percentage of payroll and tangible assets) are substracted.

Mechanisms

-Qualified Domestic Minimum Top-up Tax (QDMTT): Under the QDMTT, the host country where the multinational operates collects the top-up tax. The QDMTT has the priority.

-Income Inclusion Rule (IIR): Under the IIR, the country of headquarters (parent country) collects the top-up tax from the undertaxed partner countries where the multinational operates.

-Undertaxed Payments Rule (UTPR): The UTPR is a backstop mechanism in case the IIR and QDMTT are not applied. If country A does not apply the IIR and this amount is not collected through the QDMTT by another country B, country C could claim part of the IIR through the UTPR depending on its share of the MNE's employees and assets in the jurisdiction.

2. Current Progress

Several countries have moved forward and implemented the Pillar-Two proposal. In December 2022, the Council of the EU unanimously adopted the EU Minimum Tax Directive implementing Pillar Two starting from January 2024. Other than the EU member states, 14 countries will implement Pillar Two in 2024 or 2025 and are listed below (For more details see PwC(2024)).

> **List of Countries**
>
> **Countries Implementing IIR and QDMTT (January 2024)**
> Australia, Austria, Belgium, Bulgaria, Canada, Croatia, Czech Republic, Denmark, Finland, France, Germany, Hungary, Ireland, Italy, Luxembourg, Netherlands, Romania, Slovenia, South Africa, Sweden, Switzerland, United Kingdom, Vietnam, Zimbabwe
>
> **Countries Implementing IIR and QDMTT (January 2025)**
> Poland, Cyprus, Singapore, Thailand, Guernsey
>
> **Countries Implementing Only QDMTT (January 2024)**
> Barbados, Gibraltar, Greece, Liechtenstein, Norway

It should be noted that according to the EU minimum tax directive, a member state could defer the introduction of Pillar Two for 6 consecutive years if it has less than 12 ultimate parent entities (UPEs) that are within the scope of the OECD's global minimum tax rules. This is the case of Estonia, Latvia, Lithuania, Malta and Slovakia. It is also important to mention that the EU minimum tax Directive would target not only multinationals but large-scale domestic groups as well with financial revenues exceeding EUR 750 million annually (companies with no foreign affiliates, only operating in the EU).

3. Elements Affecting Revenues

3.1. Effective Tax Rate and the Minimum Tax Rate

The Effective Tax Rate (ETR) is a key element affecting the revenues generated under Pillar Two as it introduces a minimum tax rate of 15% on profits earned by MNEs in each jurisdiction where they operate. The calculation of revenues to be collected from Pillar Two involves determining if a jurisdiction's ETR, which is based on the ratio of taxes paid to profits earned, falls below 15%. If it does, additional taxes are applied to bring the ETR up to 15%. The choice itself of the minimum rate of 15% affects the revenues that could be collected. While some countries were pushing for a higher rate than 15%, other countries might perceive it as a high rate with respect to theirs. The top-up tax is collected mainly either through the Income Inclusion Rule (IIR) or the Qualified Domestic minimum top up tax (QDMTT).

Table 1 illustrates the example of a multinational company named ABZ that is head-quartered in country A and has affiliates in country B, C, D and E. For each country, we calculate the ETR as covered tax divided by Profits. The ETR is higher than 15% in countries A, C and D and therefore no top-up tax is applied. However, the ETR is lower than 15% for country B and E and as a result the minimum tax applies. The top-up tax would be 5% for country B (representing the difference between 15% and 10%) and 14% for country E (representing the difference between 15% and 1%). The lower the ETR of

a country, the higher would be the top-up tax would be to reach 15% and the higher the amount to be collected. The choice of the minimum tax rate has been set to 15%. A lower rate would lead to lower collected revenues from Pillar Two and a higher rate would lead to more revenues collected. A higher minimum tax would lead to higher revenues. The revenues from Pillar Two are calculated by multiplying the top-up tax by the tax base (carve-outs are not considered in this example and thus the tax base is the profits).

Table 1: Effect of the Effective tax rate on revenues

	Country A	Country B	Country C	Country D	Country E
Covered tax	2 000	1 500	3 000	4 200	200
Profits	10 000	15 000	12 000	22 000	20 000
ETR	20%	10%	25%	19%	1%
Top-up tax	0%	5%	0%	0%	14%
Pillar Two Revenue	0	750	0	0	2 800

This table presents an illustrative example showing the effect of a minimum tax rate on revenues across different countries. The ETR is calculated as covered tax divided by Profits. The top-up tax is the difference between 15% and the calculated ETR. The top-up amount is the top-up tax multiplied by Profits. We assume no carve-outs at this initial simplified example.

3.2. The Choice of the Rule

The main two rules of Pillar Two are the Income Inclusion Rule (IIR) and the Qualified Domestic Minimum top-up Tax (QDMTT). Countries have the choice of applying the different rules but the priority of application of these rules differ. There are several scenarios that could be considered. A first scenario is if country A introduces the IIR. As the headquarter country, under IIR, country A collects the top-up tax from countries where it has an affiliate with an ETR under 15%. This is the case of country B and country E. As a result, country A collects the top-up tax from country B of 750 million and of country E of 2 800 resulting in 3 550 of revenues collected by country A:

$$\text{Pillar Two (IIR) Revenue}_A = \sum_{j}^{J} (15\% - \text{ETR}_j) \times \text{Profits}_j$$

where j represents each jurisdiction the MNE has an affiliate in.

In a second scenario, country B and country E introduce the QDMTT which has the priority over the IIR and collects the top-up tax themselves. In that case, country A collects nothing.

$$\text{Pillar Two (QDMTT) Revenue}_j = (15\% - \text{ETR}_j) \times \text{Profits}_j$$

The choice of the application of the rules by the different countries affects the distribution of revenues among countries but in theory should not affect the total revenue generated from Pillar Two.

A third scenario is where neither country A or B introduces the minimum tax through IIR or QDMTT. In that case, country C and D could use the UTPR (discussed in UTPR section below). For simplification, no carve-outs are considered in this section and will be presented in the next one.

3.2. Carve-Outs

Substance-based carve-outs are a reduction in the tax base on which the top-up tax applies. It consists of subtracting 8% of the carrying value of tangible assets and 10% of employee compensation from the profits. Carve-outs decrease the amount of revenue on which the top up tax will apply and thus reducing the revenues from Pillar Two. In a transition period of ten years, the amount of excluded profits will be declining to reach 5% of tangible assets and 5% of payroll. By decreasing the percentages, the amount to be deducted from the tax base decreases leading to more revenues from Pillar Two in the long term.

To illustrate the effect of carve-outs, we continue with the example of the multinational ABZ in country B. Table 2 presents revenues from Pillar Two in a scenario with no carve-outs, short-term carve-outs (8% payroll and 10% assets) and long term carve-outs (5% payroll and 5% assets). As can be seen, the revenues with no-carve-outs are around 750 and decrease to 330 in the short run before starting to gradually increase until reaching 525 in the long run. The Pillar Two revenues are given by:

$$\text{Pillar Two Revenue}_A = (15\% - \text{ETR}_B) \times \text{Profits}_B - \text{Carve-out}_B$$

The concept behind the substance-based carve-outs is to reduce the tax burden on affiliates with real economic activity. For that, affiliates with lower share of tangible assets and payroll would face a higher impact of the minimum tax, which could be the case of tax havens. Column 5 of Table 2, shows how a higher amount of tangible assets and of payroll could increase the carve-outs and thus decrease revenues from Pillar Two to 0.

Table 2: Comparison of Pillar Two Revenues with and without Carve-outs

	No Carve-outs	Short-term Carve-outs	Long-term Carve-outs	Long-term Carve-outs*
Covered Tax	1 500	1 500	1 500	1 500
Profits	15 000	15 000	15 000	15 000
Tangible Assets	30 000	30 000	30 000	100 000
Payroll	60 000	60 000	60 000	200 000
ETR	10%	10%	10%	10%
Top-up Tax	5%	5%	5%	5%
Carve-outs	0	8 400	4 500	15 000
Profits (after Carve-outs)	15 000	6 600	10 500	0
Pillar Two Revenue	750	330	525	0

This table presents a illustrative example showing the effect of short term carve-outs (which deduct 8% of payroll and 10% of tangible assets) and long-term carve-outs (which deduct 5% of payroll and 5% of tangible assets) on the tax base and revenue. Long-term Carve-outs* introduce a case where Tangible assets and Payroll are of higher amount.

3.3. Tax Credits

Under the Pillar Two rules, there are different treatments of tax credits: Qualified Refundable Tax Credits (QRTC) and non-Qualified Refundable Tax Credits (non-QRTC). QRTC is a refundable tax credit paid as cash or available as cash equivalents within four years (e.g. R&D refundable tax credit). In order for a refundable tax credit to be qualified, the tax credit has to be refundable as cash or cash equivalents, be refunded within four years from qualification, not be limited to specific tax liabilities and not restricted to an amount related to tax liabilities. The treatment of these tax credits would affect the calculation of the ETR and thus the collected revenues. The QRTC is treated as income and included in the denominator of the ETR (in case the tax credit is already subtracted from the covered taxes, it should be added to cancel its effect from the covered taxes).

$$\text{ETR}_{\text{QRTC}} = \frac{\text{Covered Taxes}}{\text{Profits} + \text{Tax Credits}}$$

In contrast, the non-QRTC is treated as a reduction in covered taxes and is added in the numerator of the ETR.

$$\text{ETR}_{\text{non-QRTC}} = \frac{\text{Covered Taxes} - \text{Tax Credits}}{\text{Profits}}$$

As a consequence, the ETR in non-QRTC would be lower than with QRTC, which would result in a higher top-up tax. This explains why several countries are reviewing their tax credits to align them with qualified refundable tax credits (e.g. Ireland, Singapore, Belgium, Norway and Denmark). For instance, in Norway, the SkatteFUNN R&D tax incentive scheme is a Qualifying Refundable Tax Credit. In Denmark, the Minimum Tax Act aligns with the EU Directive 2022/2523 by defining strict criteria for Qualified Refundable Tax Credits (QRTCs). The Act excludes certain types of tax credits and requires transparency in their use, aligning with OECD guidelines. While the features of QRTCs under OECD Pillar Two are defined, jurisdictions can design these credits with specific qualifying activities and expenditures to better align with their economic development strategies. This approach ensures that the tax incentives drive desired behaviors and investments that contribute to the country's economic goals.

Table 3: Comparison of Pillar Two Revenues with and without Tax Credits

	No Tax Credit	QRTC	Non-QRTC
Tax Credit = 1 000			
Covered Tax	1 500	1 500	500
Profits	15 000	16 000	15 000
Tangible Assets	30 000	30 000	30 000
Payroll	60 000	60 000	60 000
ETR	10%	9.38%	3.33%
Top-up Tax	5%	5.62%	11.67%
Carve-outs	8 400	8 400	8 400
Profits (after Carve-out)	6 600	7 600	6 600
Pillar Two Revenue	330	427.1	770.2

This table presents a illustrative example showing the effect of Qualified tax credit and non-Qualified Tax Credit on the calculation of effective tax rate and on revenues. The tax credit affect the calculation of either Profits or Covered Tax depending on their type.

Continuing with the same example of MNE ABZ, Table 3 shows an illustrative example of how the QRTC and non-QRTC could affect the calculation of the ETR. With a QRTC of 1000, it would be added to the Profits of 15 000 obtaining 16 000. The ETR thus would be 1 500/16,000 = 9.38%. With a non-QRTC, the tax credit of 1 000 would be substracted from the covered tax of 1 500 which leaves us with 500. This would result in a reduced ETR of 500/15,000= 3.33%. Thus under non-QRTC, the ETR would be reduced allowing much more top-up tax and increasing potential revenues from Pillar Two.

However, there could be a case when QRTC is not more beneficial than non-QRTC. Let's consider the same example as table 3 but with different values of Assets and Payroll. Table 4 presents a particular scenario where the interaction with carve-outs makes the QRTC outcome less desirable than the one of non-QRTC. Carve-outs are equal to profits except with QRTC as the tax credit is added to the profits increasing its value. As the carve-outs cancel out the tax base, what remains is the increase from the tax credit treated as income in the scenario of QRTC.

Table 4: Tax Credit and carve-outs Interaction

	No Tax Credit	QRTC	Non-QRTC
Tax Credit = 1 000			
Covered Tax	1 500	1 500	500
Profits	15 000	16 000	15 000
Tangible Assets	50 000	50 000	50 000
Payroll	110 000	110 000	110 000
ETR	10%	9.38%	3.33%
Top-up Tax	5%	5.62%	11.67%
Carve-outs	15 000	15 000	15 000
Profits (after Carve-outs)	0	1 000	0
Pillar Two Revenue	0	56.2	0

This table presents a illustrative example showing a case where carve-outs interacts with tax credits and leave the scenario of QRTC worse off than non-QRTC. The tax credit affect the calculation of either Profits or Covered Tax depending on their type.

3.4. Undertaxed Payments Rule (UTPR)

The UTPR serves as a backup to the IIR. If an MNE's income is not sufficiently taxed or the parent entity's jurisdiction does not apply the IIR, the UTPR ensures that other jurisdictions can impose top-up taxes on the MNE's undertaxed income. The OECD's Pillar Two framework includes a transitional safe harbor rule for the Undertaxed Payments Rule (UTPR). This transitional safe harbor specifies that if the jurisdiction of the Ultimate Parent Entity (UPE) has a statutory corporate income tax rate of at least 20%, the UTPR top-up tax amount will be deemed to be zero during the transition period. For instance, a country that is implementing Pillar Two cannot use the UTPR to collect part of the undertaxed revenues of US multinationals since the US has a statutory rate of 21%. This would undermine the need to adopt Pillar Two and could potentially leave some MNEs profits undertaxed.

The UTPR amount is to be collected from countries where an MNE's effective tax rate (ETR) is below 15%. The UTPR amount is equal to what would have been collected under IIR or QDMTT but is allocated to all countries applying the UTPR. The allocation of the UTPR is determined as a percentage of what could be collected under IIR. For this percentage, 50% is based on the proportion of employees in the jurisdiction compared to the total number of employees in all UTPR jurisdictions, and the other 50% is based on the proportion of tangible assets in the jurisdiction compared to the total tangible assets in all UTPR jurisdictions. This ensures the undertaxed profits are fairly taxed across the relevant jurisdictions.

We continue with the example of MNE ABZ headquartered in Country A with subsidiaries in multiple jurisdictions B, C and D presented in Table 5. If Country A has not implemented the IIR, the profits in Country B would remain undertaxed. The UTPR allows other countries C and D, where the MNE operates and earns income, to impose top-up taxes on the payments to Country B, ensuring that the the global application of the minimum tax rate.

Table 5: Revenue collection under UTPR

	Country B	Country C	Country D
Covered tax	1,500	3,000	4,200
Profits	15,000	12,000	22,000
Tangible assets	30,000	20,000	70,000
Payroll	60,000	38,000	80,000
Nb of employees	6	4	8
ETR	10%	25%	19%
Top up tax	5%	-	-
Carve out	8,400	-	-
Profits after carve out	6,600	-	-
IIR/QDMTT Revenue	330	-	-
UTPR allocation	-	28.7%	71.3%
UTPR revenue	-	94.7	235.3

This table presents a illustrative example showing the allocation of UTPR to country C and D from a non application of IIR or QDMTT to country B. Since country B is applying neither the QDMTT nor the IIR is being applyed by the headquartered country, country C and D can collect this amount due from country B based on their share of assets and employees. This allocation is split equally, with 50% based on the proportion of employees in the jurisdiction (country C for example) compared to all UTPR jurisdictions (countries C and D in this example), and the other 50% based on the proportion of tangible assets in the jurisdiction (country C for example) compared to the total tangible assets across all UTPR jurisdictions (country C and D in this example).

4. Implications

- **Behavioral Responses.** Potential shifts in business strategies and structures of MNEs to minimize the amount paied under Pillar Two. MNEs could inflate or move tangible assets and employees from high to low tax countries to maximise carve-outs and thus reduce the tax base. In that way, MNEs could lower the minimum tax to below 15%.

- **Tax Credits.** Since the tax credit would affect the calculation of ETRs, with the non-Qualified Refundable Tax Credits leading to a significant decrease in the ETR, there could be a shift for countries to adapt the current of future tax credits into Qualified Refundable Tax Credits.

- **Priorities and Interaction with GILTI.** As outlined in the Pillar Two Rules, QDMTT would have the priority over IIR. If the host does not apply QDMTT, the country of headquarter of the MNE could collect Pillar Two revenues from the host (partner) country. If no IIR or QDMTT is applied, UTPR could be applied by a third country to collect part of the IIR that the headquarter country did not claim proportional to the percentage of assets and employees it has. However, the US in parallel is still applying GILTI and does not seem to be adapting to the Global minimum tax rules. As a result, the US could claim the undertaxed profits from its MNEs in other foreign countries. It is believed that the QDMTT (Pillar Two) would have the priority over GILTI.

- **Domestic and Foreign MNEs Treatment.** Pillar Two is applied on the foreign profits made by MNEs in partner jurisictions through the IIR or on the profits of foreign MNEs operating in the host country through the QDMTT.It is no indication to apply it on the domestic profits. However, the EU outlined in its application of the Pillar Two directive that it will also cover the undertaxed profits of pure domestic groups. Other countries might not necessarily do the same, offering their domestic MNES a competitive advantage over foreign ones.

- **Compliance costs for MNEs.** MNEs will need to invest in resources to comply with the calculations and reporting requirements of the global minimum tax rules. This could be costly as the reporting has to be done on a country-by-country basis.

- **Effect on Tax haven and profit shifting.** The effective tax rate after the introduction of Pillar Two won't necessarily ensure that a 15% minimum tax floor is applied across the globe but it would sure increase the tax rate level of very low tax countries. This would limit the race to the bottom in CIT and contribute to reduce profit shifting.

Pillar One, Amount A

1. Context

Pillar One, Amount A, focuses on reallocating a portion of profits of the largest and most profitable MNEs to market jurisdictions where the final users or consumers are located, regardless of physical presence. Pillar One is not a top-up tax and its purpose is not to generate aggregate revenues as in Pillar Two. It rather creates new taxing rights by reallocating profits to market jurisdictions and in parallel removes taxing rights from jurisdictions that have high profitability through the elimination of double taxation or tax relief they have to offer. The difference between what each country receives as reallocated revenues based on its market share and the tax relief it has to offer based on its level of profitability with respect to Assets and Payroll.

Scope

Largest and most profitable MNEs with revenues above EUR 20 billion and profitability (Profits/ Revenue) above 10%. This leave us with around 100 MNEs which more than half are American or Chinese. Excludes financial and exctractive industry.

Tax Base

The Amount A that an MNE would reallocate to market jurisdictions corresponds to a share of 25% of residual profits :

$$\text{Amount A}_i = 25\% \times (\text{Profits}_i - 10\% \times \text{Revenue}_i)$$

Mechanisms

Reallocation of Amount A
According to the OECD Pillar One rules, revenue would be reallocated on a transaction-by-transaction basis. Each country would receive part of Amount A based on their market share with respect to revenues. Then the country would tax this amount. The accurate determination of each country's market share for each MNE could be challenging as most data sources provide origin-based sales. Thus, an important step is to determine the destination-based sales.

Elimination of double taxation
Once Amount A has been reallocated based on each country's share of revenue, tax relief is offered by jurisdictions starting with those that have the highest return on Depreciation and Payroll until all the reallocated profits are eliminated. These eliminated amounts would then be multiplied by the tax rate of the country to determine the loss or the tax relief to be given up.

$$\text{Net Revenues}_i = (\text{Reallocated Profits}_i \times \text{Tax Rate}_i) - (\text{Elimination of Double Taxation}_i \times \text{Tax Rate}_i)$$

2. Current Progress

The Two-Pillar solution were introduced as a package by the OECD to adapt to the digitalization of the economy. They are today marketed separately with Pillar two receiving more support and an isolated Pillar One that may not see the light. With the US opposing the implementation of Pillar One, the proposal could not be passed globally as the US have around 46% of the MNEs in scope and 58% of the redistributed profits. Even if Pillar One could be passed without the US, the reditributed profits would be very limited from non-US MNEs. The US is not in favor of Pillar One primarily due to the increased tax burden it would place on US MNEs and the potential loss in tax revenue (Congress, 2024). It also argues that Digital Services Taxes (DSTs) and Pillar One rules would disproportionately impact U.S. firms, especially in the digital sector. Additionally, the US believes that Pillar Two, along with existing tax measures like GILTI, already addresses the issue of MNEs not paying their fair share, making Pillar One not relevant.

3. Elements Affecting Revenues

3.1. Covered group threshold
The threshold for inclusion under Pillar One significantly narrows the scope of included entities. Specifically, the rules stipulate that only MNEs with revenues exceeding 20 billion euros and a profitability rate above 10% are covered. This selective criterion means that Pillar One will apply to only a few hundred MNEs globally, targeting the largest and most profitable corporations. As a result, the majority of MNEs, especially those with either moderate revenue or profitability levels, fall outside the purview of these rules. This approach aims to focus regulatory efforts and tax alignment on the top tier of global business.

3.2. Definition of Amount A
Pillar One does not reallocate and tax directly profits but rather residual profits. The limitation of the reallocated profits to 25% of the profits above the profitability ratio of 10%. The choice of the 25% parameter as well as the 10% profitability percentage automatically limits the revenues that could be reallocated. In the example below, Amount A is equal to EUR 25 million.

$$\text{Amount A} = 25\% \times (\text{Group Profits} - 10\% \times \text{Group Revenues})$$

Table 6. MNE "EXP" financial data by country

Country	Revenue	Profit	Payroll	Depreciation
Norway	12000	2000	10000	6000
United Kingdom	1000	305	2000	600
France	2000	450	2800	950
Netherlands	5000	4000	3000	1600
Germany	4000	800	1700	1400
Denmark	5000	1000	2000	1500
Sweden	800	400	2000	1500
Luxembourg	850	490	400	80
Malta	200	50	20	20
Jersey	30	25	15	10
Total	**30880**	**9520**	**23935**	**13660**

This table presents an illustrative example of an MNE named "EXP". It operates in 10 different countries. Payroll reflects the number of employees multiplied by employee compensation, and depreciation reflects assets. All values are in millions of euros.

$$\text{Amount A} = 25\% \times (9520 - 10\% \times 30880) = 1608 \, \text{EUR m}$$

3.3. Nexus test

In order for a jurisdiction to be eligible for profits reallocation from a given Covered Group, the latter group must derive at least €1 million in revenues from that jurisdiction. For jurisdictions with GDP lower than €40 billion, this revenue threshold is decreased to €250 000. This rule has been added in the design of Pillar One to ensure that small economies are in scope of the reallocation of profits. In the example presented, all countries have revenues above 1 million, thus all countries are included in the reallocation of profits.

3.4. Marketing and Distribution Safe Harbour (MDSH)

After determining Amount A for the multinational, this amount is allocated based on the destination-based revenues of each country (sales reflecting the location of final consumer). In the design of Pillar One, the OECD introduced a mechanism "MDSH" to cap the reallocation of profits to countries that already have substantial taxing rights over the MNEs profits. This avoids the reallocation of profits where they have been already taxed. This is the case for example of limiting the amount reallocated to Norway from the Norwegian multinationals since they already have substantial amount of profits, employees and assets there. The MDSH rule applies only if the company's profits in a country are more than €50 million and the extent of cap varies depending on the profitability of the MNE in the given country (the lower the return on depreciation and payroll, the higher the cap). The MDSH depends also on the type of country (if it's a low income country, the percentage of cap is lower).

To illustrate the impact of the MDSH, we continue with the example of MNE "EXP". As presented in Table 7, the MDSH caps how much profits could be reallocated from countries that have substantial revenues and low profitability reflecting routine profits like the reduction of reallocated profits from Amount A from 624.87 to 384.85 million for Norway. Overall, the MDSH reduces substantially the portion of Amount A that could be reallocated for a given MNE. In the example presented, total Amount A for MNE "EXP" is reduced from EUR 1 608 million to EUR 463.21 million.

MDSH Calculation Step-by-Step Example

Table 7. MDSH Calculation

Country	Profits	Excess profits	Offset%	MDSH	Amount A	After MDSH Amount A	After MDSH Profits
Norway	2 000	685.78	35%	240.02	624.87	384.85	1 759.98
United Kingdom	305	91.44	35%	32.00	52.07	20.07	273.00
France	450	141.98	35%	49.69	104.15	54.45	400.31
Netherlands	4 000	3 622.16	35%	260.36	260.36	0.00	3 739.64
Germany	800	545.37	90%	208.29	208.29	0.00	591.71
Denmark	1 000	712.51	90%	260.36	269.36	0.00	739.64
Sweden	400	112.51	35%	39.38	41.66	0.00	360.62
Luxembourg	490	450.57	90%	44.26	44.26	0.00	445.74
Malta	50	44.00	90%	10.41	10.41	0.00	39.59
Jersey	25	22.95	90%	0.00	1.56	1.56	25.00
Total	**9 520**	-	-	1 144.79	**1 608.00**	**463.21**	**8 350.21**

This table presents results of MDSH calculations per country. The excess profits multiplied by the offset percentage constitute the MDSH. Then for each country, the MDSH is subtracted from the Amount A reallocated to each country (based on % of revenues), which gives the reallocation after MDSH. Profits are also adjusted after MDSH.

Step 1: Identify Relevant Countries

Countries with profits above €50 million are identified and listed for MDSH calculation. In this example, all countries are relevant for MDSH except Jersey whose profits are less than 50 million.

Step 2: Calculate Excess Profits for Country j

Excess profits for each country j are calculated using the higher value of the following:

$$\text{Excess Profits}_{ji} = \text{Profits}_{ji} - \max\bigg(3\% \times \text{Revenues}_{ji};$$

$$10\% \times \frac{\text{Revenues}_i}{\text{Depreciation}_i + \text{Payroll}_i} \times (\text{Depreciation}_{ji} + \text{Payroll}_{ji})\bigg)$$

Example Calculations:

$$\text{Excess Profits}_{\text{Norway}} = 2000 - \max\bigg(3\% \times 12000; 10\% \times \frac{30880}{13660 + 23935} \times (6000 + 10000)\bigg)$$

$$= 2000 - \max(360, 1314.22)$$

$$= 685.78$$

Step 3: Determine Offset Percentage

The offset percentage is determined as follows:

$$\text{Offset Percentage} = \begin{cases} 90\% & \text{if } \frac{\text{Depreciation}_{ji} + \text{Payroll}_{ji}}{\text{Revenues}_{ji}} < 0.75 \times \frac{\text{Depreciation}_i + \text{Payroll}_i}{\text{Revenues}_i} \\ 35\% & \text{otherwise} \\ 25\% & \text{if country is a lower-income country} \end{cases}$$

Example Calculations:

$$\text{Offset Percentage}_{\text{Norway}} = 35\% \quad (\text{since } \frac{6000 + 10000}{12000} = 1.33 > 0.75 \times \frac{13660 + 23935}{30880} = 0.91)$$

Step 4: Calculate MDSH for Each Country j

The MDSH for each country j is calculated as:

$$\text{MDSH}_j = \text{Excess Profits}_j \times \text{Offset Percentage}$$

Example Calculations:

$$\text{MDSH}_{\text{Norway}} = 685.78 \times 0.35 = 240.02 \text{ million euros}$$

Step 5: Determine Each Country's Share of Amount A after MDSH

Each country's share of Amount A is calculated by multiplying the percentage of sales in each country by the total Amount A and then subtracting the MDSH for that country.

Example Calculations:

$$\text{Sales Percentage}_{\text{Norway}} = \frac{12000}{30880} \approx 0.39$$

$$\text{Allocated Share}_{\text{Norway}} = 0.39 \times 1608 = 624.87 \text{ million euros}$$

$$\text{Final Reallocation}_{\text{Norway}} = 624.87 - 240.02 = 384.85 \text{ million euros}$$

3.5. Elimination of double taxation

Pillar One is not a top-up tax like Pillar Two and its goal is not to generate extra revenue but to redistribute profits and create taxing rights for countries and in parallel remove taxing rights from other jurisdictions to not change the tax burden on the MNE. This mechanism of elimination of double taxation decreases the revenues from Pillar One by design and puts the burden of this elimination on countries with the highest return on substance. In other words, countries with high profitability such as tax havens will bear the burden of the elimination.

To determine the amount of elimination by country j, the profits of the highest profitability ratio are reduced to match the next highest, and so on, until the total adjustments sum to the specified Amount A (€25 million). This is what is referred to as "waterfall method".

The elimination process involved in this example 3 countries: The Netherlands, The Bahamas and Jersey. This Elimination shifts the burden on countries with high return on substance, which in theory corresponds to Tax Havens like shown in example below.

Elimination of Double Taxation Step-by-Step Example

Step 1: Determine the specified jurisdictions

The smallest group of specified jurisdictions are those that make up at least 95% of profits after MDSH adjustments (or that have EUR 50 million of profits). In our example, this includes all countries except Jersey.

Step 2: Calculate and Sort Countries by Return on depreciation and payroll

The specified jurisdictions are sorted according to their Return on depreciation and payroll factor computed as Profits divided by the sum of payroll and depreciation for each country compared to the RODP of the whole MNE. Table 8 presents the ranking of countries.

Table 8. Country Ranking by RODP factor

Country	Profits (after MDSH)	(Payroll+Depreciation)	RODP	RODP factor
Malta	39.59	4.44	8.91	x4.44
Luxembourg	445.74	4.17	106.73	x4.17
Netherlands	3739.64	3.65	1020.09	x3.65
Norway	1759.98	0.49	3581.43	x0.49
Denmark	739.64	0.95	778.73	x0.95
Germany	591.71	0.86	688.35	x0.86
France	400.31	0.48	834.77	x0.48
Sweden	360.62	0.46	782.74	x0.46
United Kingdom	273.00	0.47	580.85	x0.47
Jersey	25.00	-	-	-
Total	**8375.21**	**37595**	**0.22**	-

This table presents calculation of the return on depreciation and payroll (RODP) which is adjusted profits divided by Assets + Payroll. The RODP Factor is the RODP in the country divided by the group's RODP.

Step 3: Waterfall method

Countries are placed into Tier 1, Tier 2 and Tier 3 according to their RODP factor. Tier 1 countries have RODP higher than 15 times the RODP of the group. Once all these countries reach an RODP of 15 times the group's RODP and if there is still Amount A to eliminate, Tier 2 countries are considered where RODP of countries is higher than 1.5 times the group's RODP. The elimination continues until all countries in Tier 2 have an RODP equal to 1.5 the group's RODP. If any Amount A is left to be eliminated, Tier 3 countries are considered where we eliminate profits until reaching an RODP of 10% of the group's RODP. In our example, we don't have Tier 1 countries as no RODP is higher than 15. We have Tier 2 countries: Netherlands, The Bahamas, Jersey, Lebanon and Luxembourg. To equalize the RODP between country with highest RODP in Tier 2 (Malta) and second highest RODP (Luxembourg), we calculate x_1:

$$\frac{\text{Adjusted Profits}_{\text{Malta}} - x_1}{\text{Assets} + \text{Payroll}_{\text{Malta}}} = \frac{\text{Adjusted Profits}_{\text{Luxembourg}}}{\text{Assets} + \text{Payroll}_{\text{Luxembourg}}}$$

$$\frac{39.59 - x_1}{40} = \frac{445.74}{480}$$

$$x_1 = 2.44$$

Next, profits for Malta and Luxembourg should be further adjusted to equalize its RODP with the Netherlands (third highest RODP):

$$\frac{\text{Adjusted Profits}_{\text{Malta}} - x_1 - x_2}{\text{Assets} + \text{Payroll}_{\text{Malta}}} = \frac{\text{Adjusted Profits}_{\text{Netherlands}}}{\text{Assets} + \text{Payroll}_{\text{Netherlands}}}$$

$$\frac{39.59 - 2.44 - x_2}{40} = \frac{3739.64}{4600}$$

$$x_2 = 4.63$$

and in this same step, the profits for the Bahamas (with 2nd highest RODP) should be adjsuted to equalize its RODP of Jersey (Tird highest RODP):

$$\frac{\text{Adjusted Profits}_{\text{Luxembourg}} - x_3}{\text{Assets} + \text{Payroll}_{\text{Luxembourg}}} = \frac{\text{Adjusted Profits}_{\text{Netherlands}}}{\text{Assets} + \text{Payroll}_{\text{Netherlands}}}$$

$$\frac{445.74 - x_3}{480} = \frac{3739.64}{4600}$$

$$x_3 = 55.52$$

The waterfall method sequentially adjusts the profits of specified jurisdictions to achieve parity in the return on assets and payroll (ROAP), thereby eliminating double taxation. The calculated

adjustments $x_1 = 76.93$, $x_2 = 21.177$, and $x_3 = 35.295$ so far adds up to 133.4 so the elimination process continues as Amount A is not fully eliminated yet. Therefore, RODP of Malta, Luxembourg, and Netherlands should be adjusted to the RODP of Denmark:**

$$\frac{\text{Adjusted Profits}_{\text{Malta}} - x_1 - x_2 - x_4}{\text{Assets} + \text{Payroll}_{\text{Malta}}} = \frac{\text{Adjusted Profits}_{\text{Denmark}}}{\text{Assets} + \text{Payroll}_{\text{Denmark}}}$$

$$x_4 = 27.24$$

$$\frac{\text{Adjusted Profits}_{\text{Luxembourg}} - x_3 - x_5}{\text{Assets} + \text{Payroll}_{\text{Luxembourg}}} = \frac{\text{Adjusted Profits}_{\text{Denmark}}}{\text{Assets} + \text{Payroll}_{\text{Denmark}}}$$

$$x_5 = 288.79$$

$$\frac{\text{Adjusted Profits}_{\text{Netherlands}} - x_6}{\text{Assets} + \text{Payroll}_{\text{Netherlands}}} = \frac{\text{Adjusted Profits}_{\text{Denmark}}}{\text{Assets} + \text{Payroll}_{\text{Denmark}}}$$

$$x_6 = 2767.54 \text{adjusted from 2 767.54 to 84.60}$$

So far sum of x1 to x5 = 378.60. We continue with x6 to eliminate the total Amount A. From x6, 84.60 is needed from the 2 767.54 to arrive to a total elimination of Amount A of 463.21.

Stopping Point: We stopped at x_6 because the cumulative adjustments reached the Amount A after MDSH:

$$\text{Total Adjusted Amount} = x_1 + x_2 + x_3 + x_4 + x_5 + adjusted_{x6} = 463.21$$

The elimination process involved in this example 3 countries: Malta, Luxembourg and The Netherlands (see Table 9).

Table 9. Elimination of double taxation

Country	Elimination Amounts	Total Eliminated
Malta	$x_1 = 2.44$, $x_2 = 4.63$, $x_4 = 27.24$	34.30
Luxembourg	$x_3 = 55.52$, $x_5 = 288.79$	344.3
Netherlands	$x_6 = 84.6$ (Adjusted)	84.6
Total		**463.21**

This table presents the amount of elimination of double taxation by country. It is computed as the sum of all the amounts that would bring back the profitability of a country equal to the next highest one until Amount A is eliminated.

3.6. The choice of tax rate

It is not clear by which tax rate the reallocated profits to a jurisdiction would be taxed. Whether the jurisdiction could retain 100% of the reallocated profits or tax it at the statutory rate or another rate surely would affect the level of gains. The same goes for the calculation of the tax relief from the elimination of double taxation that should be offered with respect to a tax rate. Assuming countries chose to tax the reallocated profits with respect to their statutory tax rate and eliminate taxes with respect to the effective tax rate, this would create a mismatch between what is reallocated and what is offered which would not eliminate the totality of the reallocated profits in that case. Thus any mismatch between the tax rates of reallocated profits and elimination would affect the tax burden that the MNE could face. In Table 10, reallocated profits are tax by each country using the statutory tax rate and the losses as well are eliminated using the statutory tax rates. The choice of the tax rate as can be seen affects the final outcome for each country and the final tax burden for the MNE.

Table 10. Net gains by country

Country	Reallocated Profits	Tax rate	Gain	Elimination	Tax rate	Loss	Net gain
Norway	384.85	22%	84.67	0.00	22%	0.00	84.67
United Kingdom	20.07	19%	3.81	0.00	19%	0.00	3.81
France	54.45	28%	15.25	0.00	28%	0.00	15.25
Netherlands	0.00	25%	0.00	84.60	25%	21.15	-21.15
Germany	0.00	30%	0.00	0.00	30%	0.00	0.00
Denmark	0.00	22%	0.00	0.00	22%	0.00	0.00
Sweden	2.28	21%	0.49	0.00	21%	0.00	0.49
Luxembourg	0.00	25%	0.00	344.30	25%	85.87	-85.87
Malta	0.00	35%	0.00	34.30	35%	12.01	-12.01
Jersey	1.56	0%	0.00	0.00	0%	0.00	0.00
Total	**463.21**	-	**104.21**	**463.20**	-	**119.02**	**-14.81**

This table presents results of gain and loss calculations per country. The gain is Reallocated profits multiplied by the tax rate and the Loss is the Elimination multiplied by the tax rate. The Net gain is determined by the Gain and Loss of each country. The tax rates used in this table reflect the statutory corporate tax rate from KPMG for the year 2020.

3.7. Tail-end Revenues

If a Covered Group fails to source some of its revenues to where the profits arised, they are allocated to low income jurisdiction. Only 5% of Amount A could be reallocated as unsourced income. This would increase revenues of Pillar One towards low income countries.

4. Implications

- **Effect on Tax Havens.** The Obligation to Eliminate Double Taxation requires affiliates with the highest profitability to return taxing rights to other countries of the same MNE until Amount A is eliminated. Since tax havens typically have high profitability ratios (return on depreciation and payroll), they would bear the burden of eliminating double taxation. As a result, under Pillar One, tax havens could end up in a negative position, needing to credit or repay taxing rights to other jurisdictions.

- **Interaction with Pillar Two or GILTI.** An increase in tax rates, due to Pillar Two or GILTI, can influence the tax rates at which profits reallocated under Pillar One are taxed or eliminated. Additionally, changes in the allocation of assets and employees due to behavioral responses can alter profitability ratios, affecting the calculation of both the MDSH and the elimination of double taxation.

- **Effect on developing countries.** Developing and low income countries would gain limited amount of revenue from Pillar Two compared to high income countries since the market share of the low income countries is limited as well as their purchasing power leaving most of the benefits to countries where there is a large and richer final users.

- **Digital Taxes to Keep or Suppress?** Digital Services Taxes (DSTs) and Pillar One represent two distinct approaches to taxing multinational corporations, particularly within the digital economy, each with its own characteristics and implications. DSTs are implemented unilaterally by individual countries and specifically target digital services by taxing global revenues directly. In contrast,

Pillar One is a multilateral framework agreed upon by multiple countries, designed to apply to a broader range of sectors and focus on taxing global residual profits. The tax bases differ significantly: DSTs have lower global revenue thresholds, typically ranging from €0 to €750 million, and national revenue thresholds from €0 to €30 million, whereas Pillar One sets higher thresholds—€20 billion for global revenues and either €250,000 or €1 million for national revenues—and includes a profitability threshold of 10%.

An important aspect of Pillar One is that countries adopting this framework would need to abandon their existing digital taxes and refrain from introducing new ones in the future. This requirement highlights a fundamental difference: DSTs, as unilateral measures, could be easier to implement but may lead to complexities as different countries introduce varying types of digital taxes, potentially causing the tax burden to shift to consumers. In contrast, Pillar One is viewed by the OECD as a coordinated effort to achieve a fairer distribution of tax rights and includes provisions to eliminate double taxation, which is not the case with DSTs. Although revenues generated by DSTs and Pillar One may be comparable,

- **Towards Formulary Apportionment?** Whether Pillar One is implemented in the future or not, it introduces the formulary apportionment idea through one redistribution factor which are Sales. This could open the debate for other forms of formulary apportionment that are not necessarily restricted to Sales but augmented to include other factors in the redistribution such as assets and employees.

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