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Global taxes in the post-COVID-19 era

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Key numbers

USD 695 billion

could be collected annually from global taxes, incl. the minimum CIT, wealth and climate taxes

- **USD 127 billion:** the amount to be collected globally each year due to the introduction of a global minimum CIT rate
- **USD 289 billion:** the introduction of global wealth tax could help increase budgetary revenues by that amount
- **USD 279 billion:** tax revenues from the introduction of climate tax

100 per cent

of the annual cost of achieving the UN's Sustainable Development Goals related to energy access and efficiency could be covered with revenues from new global taxes

4 times:

the possible annual frequency of vaccinating every adult around the globe against COVID-19 with revenues collected

Up to
USD 240 billion:

the annual amount lost, by governments around the globe as a result of profit shifting to tax havens (around 9.5 per cent of global CIT revenues)

USD 7.6 trillion:

the amount transferred by the world's wealthiest to offshore accounts to escape tax administrations

Key findings

→ **The COVID-19 pandemic has strained not only health systems, but also public budgets.** In the past year, deficits have skyrocketed as states have been struggling to protect their economies from negative consequences of the pandemic. In major advanced economies, they have grown by almost 10 pps in relation to 2019 (IMF, 2021). Most states around the world have little fiscal space to further expand their debts exponentially. Therefore, there will be a growing need to introduce new sources of revenues. National states have limited capacities to tackle the most pressing tax issues – their scope and impact reach far beyond the powers of local legislatures. Collective actions are needed.

→ **The paper describes three vast global challenges and presents how they could be addressed through tax solutions.** It provides details of their design, estimates potential revenues and points out what could be achieved with the money collected. Tech giants have rapidly grown in recent years and the COVID-19 pandemics has only highlighted their importance. However, hardly ever do they pay their corporate taxes in the jurisdictions where they have significant economic presence. Digital companies also heavily rely on tax schemes commonly used by traditional multinational enterprises. They both shift profits to tax havens and reduce their global tax bills. **The answer to multinational companies' tax avoidance could be twofold.** Firstly, **new rules for determining the place of tax liability** should be put into place, allowing to tax profits in market jurisdictions. Secondly, **a global minimum tax rate (15 per cent)**

for the largest multinational companies should be introduced. It could end the tax race to the bottom and eliminate tax havens. The introduction of the above-mentioned solutions could bring an annual amount of around **USD 127 billion** in global CIT revenues.

The second issue is related to the concentration of wealth that is not fairly taxed. In the past decades, rising income inequalities and large public transfers of public to private wealth have increased wealth concentration among individuals. It is not taxed accordingly and tends to be transferred to tax havens. **Wealth accumulation and its transfer offshore could be capped through the introduction of wealth tax on 0.01 per cent of the world's richest.** In the pandemic year alone, the value of billionaires expanded by USD 5.1 trillion to USD 13.1 trillion. The global scope of the tax and wide public approval for its introduction could help limit shifting wealth offshore. A tax rate of merely 0.5 per cent for the top 0.01 per cent for wealth above USD 10 million and 1.5 per cent above USD 1 billion could lead to collecting an annual amount of **USD 289 billion**.

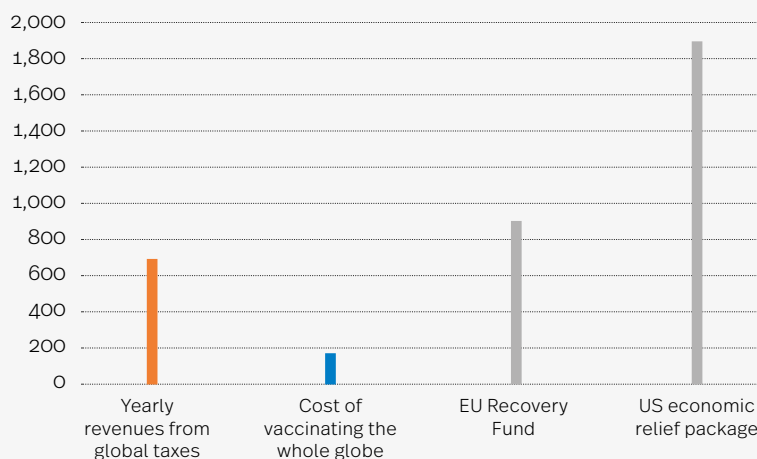
The third challenge results from uncontrolled and uncapped carbon emissions. Some countries see the gravity of the issue and introduce climate neutrality targets. It is often facilitated by carbon pricing mechanisms. At the same time, others free-ride and treat their loose environmental standards as a comparative advantage. It leads to carbon leakage and overall growth of global energy-related CO₂ emissions. **Global climate tax could help reduce carbon emissions and provide revenues**

to tackle environmental challenges. Due to the introduction of different prices and limits of emissions based on states' socio-economic performance, a global and tailored tax solution would be created. Its implementation could bring **USD 278 billion annually**.

- **Countries around the globe could collect approx. USD 695 billion if the three taxes in question should be introduced and collected, simultaneously mitigating negative global externalities.** Even though the proposed taxes should be global, revenues would be collected and distributed at the national level.

The only condition related to their spending would result from the necessity to allocate them to achieving (or overachieving, as in the case of developed countries) the United Nations' Sustainable Development Goals (SDGs). For example, USD 695 billion would suffice to vaccinate every adult around the globe 4 times or to achieve the SDG related to energy access and efficiency. At the same time, thanks to new taxes, 14 per cent of global annual costs needed to achieve all the SDGs could be secured, significantly boosting the quality of public services worldwide (incl. better health and education).

↘ **Figure 1.** Potential revenues from global taxes in comparison to selected items of global spending (in USD million)



Source: calculated by the PEI, prices of vaccines based on Biospace (2021) information.

Introduction

The COVID-19 pandemic has triggered extraordinary policy responses around the globe. Governments have taken unprecedented steps to limit the spread of the virus and protect their economies from the crisis. In the face of rapidly declining private sector demand, it was the monetary and fiscal stimulus that averted economic collapse. As a consequence of massive interventions from governments, their deficits and debts have skyrocketed. Large-scale interventions have left governments with record debt burdens: in 2020, debt to GDP rose from 108.2 per cent to 127.1 per cent in the USA (IMF, 2021), from 77.5 per cent to 90.7 per cent in the European Union (Eurostat, 2021) and from 57.1 per cent to 66.8 per cent in China (Trading Economics, 2021).

In 2021, there will not be that much of a difference on that matter. Due to the roll-out of vaccines, countries will likely open up their economies in the second half of the year. However, in order to build back better, support employment and develop strategic sectors, further public spending will be needed. Most states around the world have little fiscal space to further increase their debts exponentially. Radical spending cuts that could help reduce them have proved to be counterproductive during the global financial crisis. Therefore, there will be a growing need for new taxes. They must be crafted carefully in order to be successful. On the one hand, such taxes should boost public revenues. On the other hand, they must seek to eliminate negative externalities caused by some actors and to have little detrimental effect on economic activity in order not to suppress post-COVID-19 growth.

Globalisation and the related free movement of capital have decreased governmental capacities to tackle the most pressing tax issues.

Their scope and complexity reach beyond the powers of local legislatures. If they are addressed locally, as in the case of profit shifting or CO₂ emissions, it can even lead to worse outcomes, i.e. a tax race to the bottom and carbon leakage respectively. Furthermore, unilateral actions lead to bilateral frictions and the dismantling of existing global arrangements. In order to close the loopholes and tackle the most pressing issues, coordinated efforts and multilateral cooperation are needed.

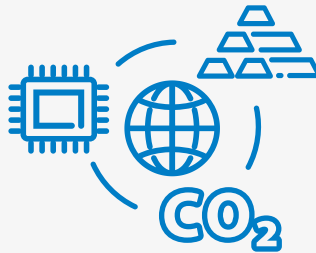
The past few years have been marked by the intensification of international debates and negotiations to address the most pressing international challenges, such as taxation and climate. Loopholes in the international tax system are dealt within the framework of the OECD's Base Erosion and Profit Shifting project. Climate questions are discussed during the UN Conference of the Parties annual meetings. Even though targeted institutions and mechanisms have been established, little has been achieved. Vented and contradictory interests and different developmental paths are the main reasons why international treaties and solutions have remained principally voluntary, with little prospect of bringing urgent reforms.

2020 is often hailed as the Hamiltonian year of the 21st century. The COVID-19 pandemic has brought excessive mortalities and extraordinary strain on many health systems. It has also contributed to widespread mistrust: to societal institutions, political leaders (Edelman, 2021), but also amongst nations (Pew Research, 2020). At the same time, people around the globe declare to be more and more aware of rising inequalities (UN, 2020) and climate challenges (Ifo, 2020). Answering these global challenges might lead to a reversal of the above-mentioned negative

trends and provide politicians with wider public support, needed for the post-COVID-19 economic rebalancing.

The purpose of this paper is to demonstrate that even a moderate level of multilateral agreement could bring substantial benefits: a reversal of the global race to the bottom in numerous domains and significant public revenues at the same time. Therefore, the next chapter

describes three global challenges and presents how they could be addressed through tax solutions: the minimum corporate income, wealth and climate taxes. It provides details of their design and estimates potential global revenues from their collection. The last paragraph presents how the money could be distributed and which global challenges would be tackled due to the implementation of such new taxes.



Three proposals for global taxation

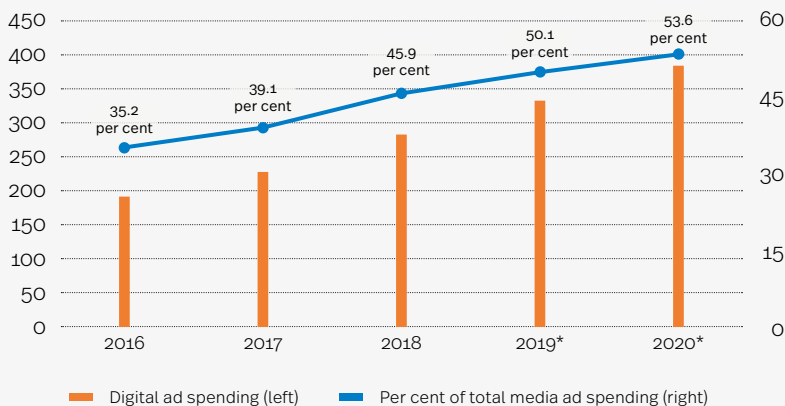
1. Tax multinationals – from EU digital tax to global CIT

(a) Starting as digital tax

Digitalisation is developing rapidly, bringing plenty of benefits to its participants. It is a huge asset and one of key engines for productivity increase and consumer welfare. It should be therefore fostered and nurtured. The COVID-19 pandemic has only increased the role of companies such as Google, Apple, Facebook and Amazon (hence the acronym GAFA), at the same time leading to the development of new digital enterprises and increasing our dependence upon the digital economy.

Digitalisation has nonetheless been raising some questions and doubts. The largest digital enterprises have grown at an unprecedented pace over the past few years, which often led to their monopolistic market position and the lack of a level playing field for others (Figure 2). In 2019, the top 10 companies earned 76.6 per cent of all advertising revenues and this share is still rising (IAB, 2020). At the same time, these important market players – as much as other global corporates – are unwilling to contribute their fair share to society by paying due taxes in right countries.

Figure 2. Global digital ad spending (in USD bn)



Source: calculated by the PEI based on eMarketer.com, the figures for 2019 and 2020 are estimates.

The growth of digital giants is a relatively new phenomenon and jurisdictions have not yet established relevant tools to deal with the related challenges. One of the most pressing issues,

widely discussed in the past few years, concerns reform of the global tax system to address the challenges arising from the digitalisation of the economy. Countries have been striving to create

a regulatory and tax framework to appropriately tackle this issue. There is growing awareness and know-how concerning the functioning of this sector, which will facilitate converting the knowledge into tax regulations.

Digital enterprises function in a completely different manner than traditional brick-and-mortar companies, thus presenting a practical challenge to outdated national tax systems. The former are able to provide services at minimal marginal costs, exploiting user network effects. They generate significant revenues by making particular use of and monetising user data and user-created content. Vital characteristic of their tax model model is the ability to be formally based in certain jurisdictions and then to sell and earn revenues elsewhere. The place of value creation and its taxation are not aligned. Enterprises operating digitally (but also pharma

and service companies) evade paying corporate taxes in the jurisdictions where they have significant economic presence, benefiting from the 'scale without mass' effect.

Those businesses also rely on tax schemes commonly used by traditional multinational enterprises. They build complex structures of parents and subsidiaries to shift profits to low tax regimes and reduce their global tax bills. The main element of international tax evasion is locating affiliates of multinational corporations in countries that do not apply severe tax consequences to capital flows. Multinationals take advantage of the loopholes in the jurisdictions where they operate and use advanced tax engineering (i.e. special purpose vehicles – organisational structures that do not directly generate tax savings but act as vehicles to facilitate tax savings) or special regimes to achieve lower tax rates.

▸ Box 1. Amazon not paying corporate taxes in the EU

According to Amazon EU Sarl's financial statements filed in Luxembourg, in 2020, the company's sales spiked to EUR 44 billion, up from EUR 32 billion in the previous year. Despite the record-high e-commerce turnover achieved primarily thanks to the coronavirus pandemic, Amazon declared a loss of EUR 1.2 billion. It therefore did not have to pay any corporate tax. Furthermore, it received additional EUR 56 million in tax credits (Neate, 2021). The company has already accumulated EUR 2.7 billion of losses carried forward and will be able to use them to cover tax liabilities in the case of possible profits in the future.

Amazon benefits from special tax arrangements provided by the Luxembourg government and the transfer pricing mechanism. It receives numerous tax credits and simultaneously uses intangible assets to lower its tax liabilities.

The COVID-19 crisis has exacerbated the challenges described even further. The pandemic has accelerated the digitalisation of the economy and led to rapid development of new digital brands and already existing multinationals, increased pressure on public finances and

decreased public tolerance for global enterprises avoiding the payment of their fair share of taxes. Low or even no taxes paid by high-techs weaken the sustainability of public finance and aggravate social distrust as well as a growing sense of social injustice.

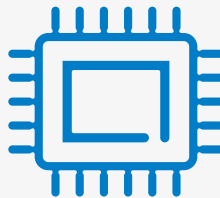
(b) ... but ending with a global minimum CIT

The European Union was the first to declare working on digital services tax. In 2018 some of the EU Member States announced the will to create and implement measures enabling to tax digital companies operating in their territories. However, this idea has not gained unanimous support. Some countries argued that in order to create a successful regime and effectively cut down on unlawful tax optimisation, it was necessary to address the issue at a global level, including the countries that serve as headquarters for the biggest digital platforms (mainly the USA). Unilateral or small-scale solutions could be ineffective and only create bilateral economic tensions.

It was decided that negotiations would be moved to a global multilateral institution. The Organisation for Economic Cooperation and Development (OECD)¹ was chosen. For the past few years, it has been playing a leading role in setting the international tax agenda with its Base Erosion and Profit Shifting (BEPS) flagship project. In its framework not only new tax standards have been set, but also globally binding international legislation has been implemented.

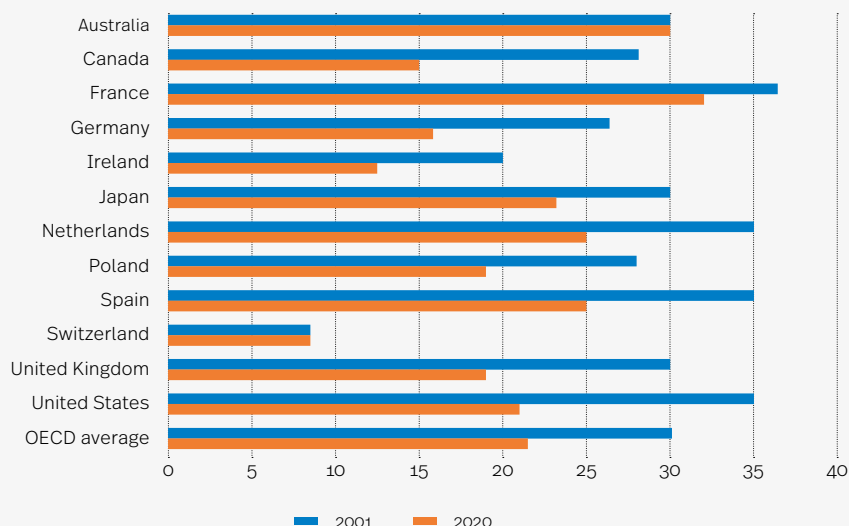
What was first intended as a digital tax soon expanded and the OECD started working on a global minimum CIT rate. According to the initial mandate, the OECD's Task Force on the Digital Economy was supposed to create a legislative framework for taxing digital enterprises. However, as negotiations progressed additional issues were raised, leading to supplementary questions regarding profit shifting and loopholes in CIT systems.

It turned out to be impossible to address challenges related to the value creation of digital companies without tackling a broader and more fundamental question of tax havens and artificial profit shifting. The very mechanism leads to significant depletion of public revenues – as estimated by the OECD (2020a), it costs countries USD 100 billion to USD 240 billion per year. As states realised that low corporate taxes could be the main tool to attract footloose businesses, the race to the bottom started. The average statutory CIT rate in developed economies fell from 30 per cent in 2001 to 21.5 per cent in 2020, with some governments offering particularly low rates, Switzerland (8.5 per cent) or Ireland (12.5 per cent) being at the forefront (Figure 3).



¹ Negotiations are carried out within the G20/OECD Inclusive Framework format, including 137 member jurisdictions.

Figure 3. Changes in corporate income tax rates in selected OECD countries (in per cent)



Source: calculated by the PEI based on OECD (2019b) tax statistics.

To tackle the problem, the OECD mandate was extended and two pillars were created. They are supposed to deliver complementary legislative solutions for two broad issues – profit allocation rules and the global minimum tax rate for ‘consumer-facing’ Multinational

Enterprises. Final negotiations on both are supposed to end in July 2021. At the beginning of 2021, the Biden Administration expressed its will to agree on a CIT minimum rate so the likelihood of reaching a compromise grew significantly (Box 3).

Box 2. The EU’s Recovery Fund and Digital Tax

By the end of the second quarter of 2021, the European Union is expected to present a proposal for three new taxes that would at least partially finance the debt the Community will incur with the EU Recovery Fund. As declared, one of them will be a digital tax (EU, 2020).

Representatives of the European Commission (EC) Directorate General for Taxation and Customs Union declare that their proposal will be compatible with the framework negotiated at the OECD forum. However, the Commission plans to treat it as the minimum and at the same time introduce more comprehensive digital tax as EC experts point to the need to achieve a certain level of revenues. Therefore, the proposed solutions may go much further and involve a higher tax burden than that proposed by the OECD or the Biden administration.

(c) The concept – targeting multinationals and tech giants at once

Pillar One (digital tax) is aimed to adjust the international income tax system to new business schemes by introducing changes to the profit allocation and nexus rules applicable to business profits. It expands the taxing rights of market jurisdictions where there is an active and sustained participation of a business in the economy of that jurisdiction through activities in, or remotely directed at, that jurisdiction (OECD, 2020b). It also aims to significantly improve tax certainty by introducing new dispute prevention and resolution mechanisms. Pillar One introduces rules for determining the place of liability for Automated Digital Services (ADS) and Consumer Facing Businesses (CFB). A new set of rules for the allocation of profits between jurisdictions would allow them to tax profits of multinational enterprises (MNEs) as a result for providing business services in their territories.

Pillar Two focusses on a minimum effective tax rate of 15 per cent for MNEs and on the rules identifying the companies to be included in the scheme. It also sets out internationally approved

rules that would provide states with a right to ‘tax back’ where other jurisdictions have not exercised their primary taxing rights or the payment is otherwise subject to low levels of effective taxation (as in the US GILTI regime). Adopting its rules should ensure that MNE groups with consolidated gross revenues above EUR 750 million pay at least a minimum effective level of corporate tax, which could lead to the elimination of tax havens (OECD, 2020c).

The implementation of both pillars should lead to a fairer contribution from companies operating internationally. It is especially crucial in the context of post-COVID-19 recovery and more stable medium- and long-term economic outlook. It should also limit the risk of short-term solutions and distortions across businesses of different types and origins, helping reach a more level playing field between digitally operating MNEs and those coming from other sectors of the economy. At the same time, its worldwide implementation could also raise tax revenues resulting from reduced intensity of corporate tax competition between states.

➤ Box 3. Biden’s proposal

The key features of Biden’s ‘Made in America’ tax proposal revealed in 2021 include:

- 28 per cent corporate tax rate in the US (raised from 21 per cent)
- 21 per cent global minimum tax, calculated on a country-by-country basis
- 15 per cent minimum tax on book income
- Replacement of the BEAT with the SHIELD rule, applicable to enterprises with global annual revenues above USD 500 million. The SHIELD regime would disallow deductions for certain payments made by domestic corporations or branches to foreign related parties.

Furthermore, US representatives informally suggest that the Pillar I threshold set by the OECD (EUR 750 million) is far too low. The new one could be as high as USD 20 billion.

The Tax Justice Network (2021) estimates that if the US proposal should be implemented, global CIT revenues could increase by as much as USD 300 billion a year. However, it is highly developed countries that would benefit from it the most. Their CIT revenues could increase by 30 per cent, whilst those of developing countries would grow by 20 per cent.

(d) How much revenue can we get?

Potential tax revenues coming from both Pillars have been estimated and gains (especially from Pillar Two) derived from around 2,300 multinationals would be significant². The calculations are based on the following assumptions: Pillar One has a profitability threshold percentage of 10 per cent and a reallocation percentage of 20 per cent. Pillar Two has a global revenue threshold of EUR 750 million and is assumed to involve a 15 per cent minimum tax rate with jurisdictional blending and a 10 per cent combined

carve-out on payroll and depreciation expenses. Based on those assumptions, the implementation of both pillars could increase global CIT revenues by approx. USD 62 billion to USD 106 billion annually, which accounts for 4.3 per cent of global CIT revenues. These amounts could be even higher with the fiscal effect of the US GILTI regime (if it should co-exist with Pillar Two). In such a case, the overall revenues would range between USD 71 billion and USD 127 billion, i.e. around 5 per cent of global CIT revenues³.

➤ **Table 1.** Overview of global tax revenue gains from Pillars One and Two

Estimated global tax revenue gains		In per cent of global CIT revenues	In USD billion
Pillar One		0.2–0.5	5–12
Pillar Two	- Direct revenue gains	1.2–2.3	30–57
	- Additional gains from reduced profit shifting	1.1–1.5	27–37
	Total Pillar Two	2.3–3.8	57–94
Total Pillar One and Pillar Two		2.5–4.3	62–106
US GILTI regime		0.4–0.8	9–21
Total (Including GILTI)		2.8–5.1	71–127

Source: estimates based on OECD (2020d).

² The underlying data used by the OECD for the estimates have several limitations – they were collected before some recent developments such as the 2017 US tax reform, the implementation of certain aspects of the OECD/G20 BEPS package and the Coronavirus crisis.

³ The exact gains would have to be recounted once the final version of design elements and parameters in both pillars is calibrated and announced.

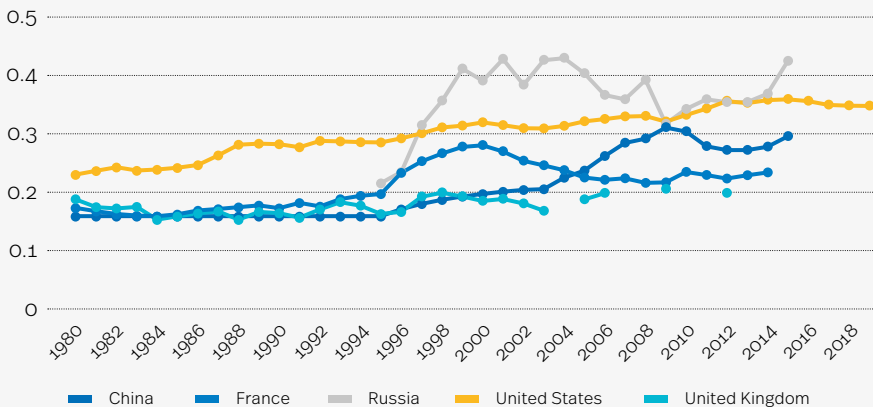
2. Tax the rich

(a) Greater wealth, lower taxation

Over the past couple of decades, increasing income inequality and large public transfers of public to private wealth (privatisation and New Public Management approach) have led to rising wealth concentration among individuals. Without public framing wealth accumulation acts in a self-reinforcing way. As estimated by Piketty and Zucman (2013), in 8 advanced economies the average ratio of net household wealth to national income increased by almost 80 per cent

between 1970 and 2011. While the bottom half of the global population owned less than 1 per cent of all wealth in 2019, the richest decile owned 85 per cent of it and the top 1 per cent alone were in possession of almost half (Global Wealth Report, 2019). For China, Europe and the United States combined, the top 1 per cent wealth share appears to have increased from 28 per cent in 1980 to approx. 33 per cent in recent years (Figure 4).

Figure 4. Top 1 per cent wealth share in emerging economies and rich countries



Source: estimated by the PEI based on the World Inequality Database (2021).

The wealth is rapidly accumulated but not taxed accordingly. The reasons may be twofold. Firstly, the level of taxation for the richest has significantly decreased in recent years. Hope and Limberg (2020) analysed tax changes in 18 OECD states over the last half a century (1965-2015). According to their research, in all the above-mentioned countries there were significant tax cuts (incl. taxes on personal income, corporate and inheritance taxation) for the richest from the 1980s, particularly between 1985 and 1992 and

then between 1998 and 2003. Those findings are in line with a study by Rubolino and Waldenstrom (2020) that uses variation from the Western states' tax reforms since the 1980s and synthetic control method estimation to prove common reductions in the top marginal tax rates.

National states have limited capacities to collect legally applicable taxes as the wealthiest use a number of tax avoidance means not to pay them. In the past couple of decades, wealth has been increasingly transferred to tax havens around

the world as a growing number of offshore centres have entered the market for cross-border wealth management. Furthermore, rapidly developing information technology and financial innovation have made it simpler to move funds overseas or to make use of loopholes in the existing systems. Such schemes are commonly exploited by the richest who benefit the most from them and have sufficient means to engage in them.

According to estimates by Alstadsæter, Johannesen and Zucman (2018) as well as Pellegrini

(2016), in 2015, around 8 per cent of the world's household financial wealth, i.e. the equivalent of 10 per cent of global GDP, was held in tax havens⁴. This wealth is extremely concentrated at the top: 0.1 per cent of the richest households own about 80 per cent of it and the top 0.01 per cent – approx. 50 per cent. The world's wealthiest transferred at least USD 7.6 trillion to offshore accounts in order to escape tax administrations. As a result, states around the world lose about USD 200 billion annually in foregone revenues based on the existing tax regimes.

(b) How to tackle the problem? The wealth tax: global and progressive

One of the most efficient means to help decrease wealth concentration and boost public revenues is a wealth tax. It is a recurrent tax levied on the individual net wealth stocks above a certain exemption threshold. Net wealth includes all (financial and non-financial) assets net of all debts. A wealth tax is a potentially more powerful tool than income, estate or corporate taxes to address the issue of wealth concentration as it concerns the capital stock rather than the flow.

A number of countries have already attempted to implement the above-mentioned

solution at the national level. In 1965, eight OECD states had that tool in place. The number grew to a peak of 12 in the mid-1990s, but subsequently decreased to just five⁵ in 2019. Questions regarding the efficiency of the tool, overall trend towards lowering taxes on the top income earners, the risk of capital flight and administrative costs led to its progressive withdrawal. Among the countries still collecting net wealth taxes, the relevant revenues accounted for an average of just 1.2 per cent of their total revenues in 2018 (OECD, 2018).



⁴ There is, however, far-reaching heterogeneity between states in wealth transfer as the Scandinavian countries own the equivalent of only a few per cent of GDP in offshore wealth, but the respective figure rises to about 15 per cent in continental Europe and to as much as 60 per cent in Russia, the Gulf countries and a number of Latin American countries.

⁵ Those were Colombia, France, Norway, Spain and Switzerland.

Table 2. Advantages and disadvantages of wealth tax

Advantages	Disadvantages/Risks
A targeted solution to redistribute wealth. It is preferable to inflation because it provides clarity on the allocation of costs. Inflation redistributes wealth in a more opaque and random manner.	Tax avoidance and evasion. Increasing the mobility of financial assets and the popularity of tax havens, combined with the elimination of barriers to cross-border capital transfers have allowed taxpayers to move the capital offshore without declaring it.
Narrowing wealth gaps at a faster pace and reducing wealth concentration at the top.	Liquidity concerns. Some households have valuable assets, which makes them liable to pay the tax, but limited realised income to actually pay it.
Encouraging investment in human capital. Wealth tax lowers the net return on real and financial assets relative to the returns on investment in human capital.	Valuation. Many forms of wealth are difficult to value (non- or infrequently traded assets).
A tax less likely to harm growth. It largely operates for a certain time like a capital levy: past accumulation is taxed but the returns to current investment and innovation are unaffected.	Penalisation of low return asset holders. Because wealth taxes do not tax the actual return earned on assets but are equivalent to the taxation of a presumptive return, the effective tax rate decreases when actual returns increase.
If well-designed, an efficient means to significantly increase public revenues.	Double taxation. If wealth is accumulated from wage earnings or savings, those would be taxed twice.
	Distortion of saving behaviour. The decision to postpone consumption and the allocation of resources is distorted by the tax system as wealth tax drives a wedge between the prices of consumption at different dates.

Source: estimates based on OECD (2020d).

Wealth taxes used so far have been poorly designed and collected, but it can be fixed.

Most of the above-mentioned concerns can be neutralised by a global approach to tax issues, the exemption amount and recent IT developments. A comprehensive wealth tax base with a high exemption threshold and no preferential treatment for any asset classes can significantly reduce avoidance options. Its efficiency can also be increased due to recent tax administration improvements, substantive progress on international tax transparency and the global exchange of information. Furthermore, by leveraging modern information technology, it is possible for tax authorities to collect data on the market value of most forms of household

wealth and use the information to repopulate wealth tax returns, reducing evasion possibilities to a minimum.

In recent years, there has been a heated discussion on the re-introduction of wealth taxes.

This reversal has been driven to a great extent by the necessity to boost public revenues. They will be particularly needed in the aftermath of COVID-19 which has greatly depleted national budgets. At the same time, the tax serves as a response to the growing concern about the lack of justice and growing social inequalities.

Wealth tax revenue depends on two key factors: the tax base and the enforcement. Regarding the former, the study assumes the following two tax rates:

Wealth group	Marginal tax rate	Threshold
Top 0.01 per cent	0.5 per cent	USD 10 million
Billionaires	1.5 per cent	USD 1 billion

The tax would therefore only apply to a selected and very narrow group of individuals and their families. Their wealth is widely known thanks to numerous lists of millionaires and billionaires, making it more difficult for them to avoid taxation. Assuming such a narrow base would help exclude lifecycle savings of almost all taxpayers and target the tool.

Implementing wealth tax on a global scale would boost collection efficiency. Firstly, implementing such solutions worldwide would eliminate the risk of wealthy taxpayers' migration.

There would be no further sense to stash money in trusts or offshore accounts as the same rules would apply everywhere to everyone. Creating a global financial registry could force the wealthiest to report their transactions and expose their holdings to scrutiny. Secondly, such a tax would be the best embodiment of global solidarity in the fight against the most pressing issues. It could help transfer the discussion from narrow national self-interest and contribute to moving the debate to a more global level, but also supplement post-COVID-19 economies with the necessary funds.

(c) How much revenue can we get?

Wealth tax would be collected from 0.01 per cent of the wealthiest. Taxing this group is widely supported by 64 per cent of US citizens (Schneider, Kahn, 2020) and a similar level of backing can be observed in some European countries (Ipsos, 2020). The lower rate of 0.5 per cent would cover a group of several millionaires with an accumulated wealth of USD 32.45 trillion (WIR, 2018). Taxing their wealth above the threshold of USD 10 million would bring annual revenues of around **USD 132.6 billion**.

The higher tax rate of 1.5 per cent only applies to billionaires. Their wealth is well-documented: according to Forbes billionaire data (Forbes, 2021), in March 2021 there were 2,755 billionaires around the world (660 more than a year ago!) with total taxable wealth of USD 13. trillion. During the pandemic, the overall value of their wealth grew by USD 5.1 trillion from USD 8 trillion in 2020. Taxing it at a rate of 1.5 per cent above USD 1 billion could thus raise **USD 156.2 billion** a year.

In total, the overall value of collected annual revenues from net wealth tax would amount to **USD 288.8 billion**.



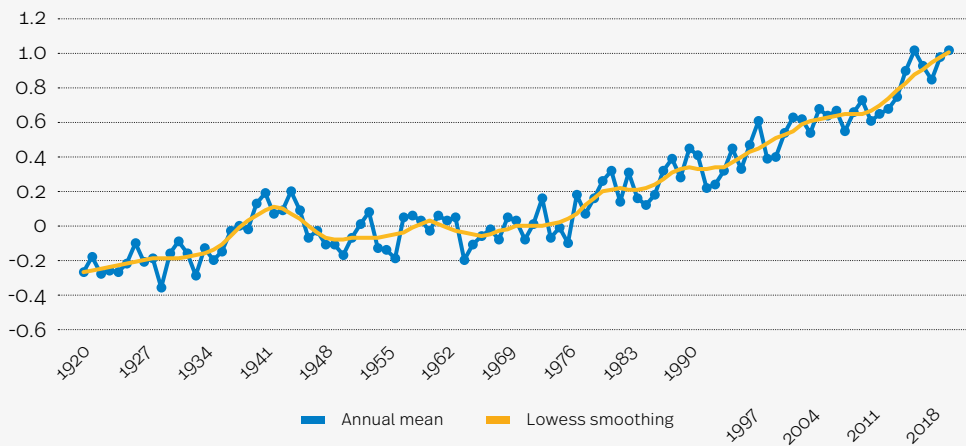
3. Tax environmental poisoners

(a) Why tax it at the global (rather than national) level?

Few could argue about the significance of challenges related to climate change and global warming. The increase in global temperatures is rapid and alarming (Figure 5)⁶ and there is growing awareness of the urgent necessity to slow

it down. The UN Conference of the Parties pledges to support climate neutrality or climate strikes: the past few years have been marked by a number of both national and international declarations and events concerning this topic.

Figure 5. Global change in land-ocean temperatures (in °C)



Source: calculated by the PEI based on the NASA Goddard Institute for Space Studies data (2020).

The climate problem belongs to a classical tragedy of the commons. There is substantial difficulty with securing the supply of a public good when the individual incentive for all parties is to free-ride on efforts of others (which is one of the sources of the carbon leakage issue). Some states or organisations (such as the European Union) take decisive actions and pay for climate protection measures. At the same time, others free-ride – gaining competitive advantages or keeping their costs low. Especially

that most benefits of mitigations are global and distant, whereas high costs are immediate and local.

The climate challenge can only be effectively tackled on a global scale. Global warming is of a universal character and applies to all countries around the globe – it requires collective actions in times when the prevailing ideological climate is tilted towards protectionism and anti-collectivism. It is one of the main reasons why all international climate treaties and solutions so

⁶ The figure illustrates the change in global land-ocean temperatures relative to 1951–1980 average temperatures.

far have been principally voluntary and have little prospects of slowing down climate change.

It is therefore necessary to find a way of negotiating an internationally binding deal with as many actors included as possible that might help internalise the global warming

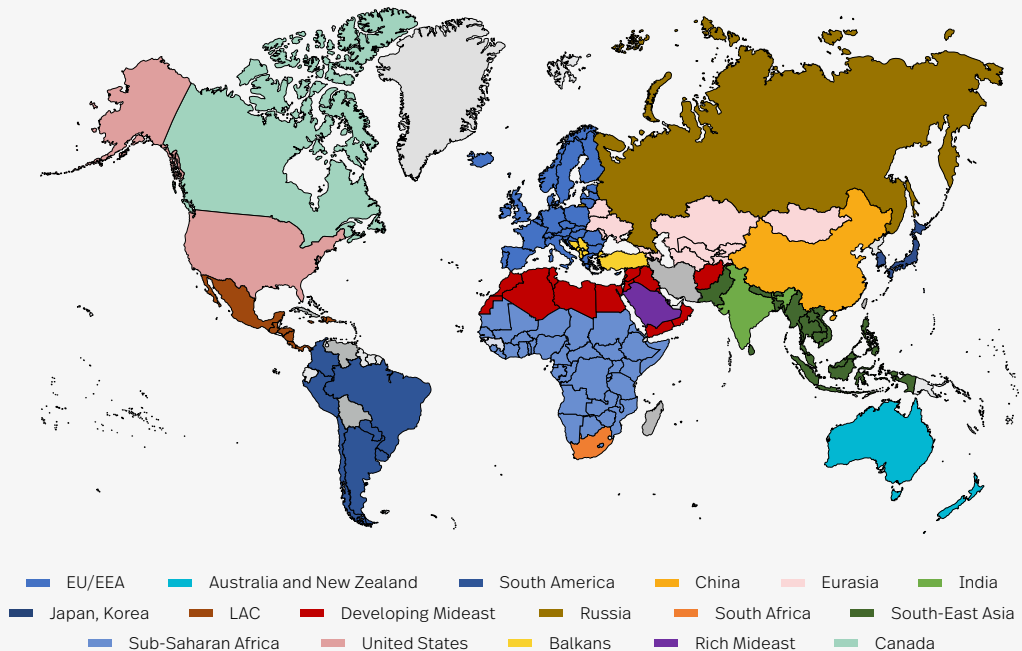
externality. Such an agreement to reduce emissions must not only be attractive from the perspective of the common good. It should also be something to which individual countries want to accede and adhere because they find it economically beneficial (Nordhaus, 2013).

(b) The concept – Carbon pricing and Climate Clubs

The problem of free-riders and limitations related to national approaches could be resolved by Climate Clubs, a bottom-up approach introduced by the Nobel Memorial Prize winner William Nordhaus (2015). He proposed creating 15 Climate Clubs around the world; this study expands the list to 17, adjusting the countries belonging to particular clubs based on the principle of homogeneity – in terms

of their geographical and socio-economic similarities. It is We assume that clubs would be established all at once, with very few free-riders as the cost of not joining would be too high. The club design could evolve, depending on states' economic and environmental development. All states forming a club would have to collectively agree on a carbon pricing mechanism applicable to all of them.

➤ Infographic 1. Global arrangement of 17 climate clubs



Source: prepared by the PEI based on Bing maps (2021).

Carbon pricing is one of the most common means to curb down global warming emissions.

It is a cost applied to a tonne of greenhouse gas emissions that enterprises are forced to pay for emitting CO₂ into the atmosphere. Its introduction should lead to increasing prices of detrimental products and decreasing the demand for them. At the same time,

low-carbon energy options are bound to gain in attractiveness.

There are two main ways of carbon pricing: carbon tax and the emission trading system (ETS). The latter is well-developed in the European Union, where the auctioning mechanism based on the 'cap and trade' approach is used to determine the price of greenhouse gas emissions.

▸ Box 4. The EU ETS system and rapidly growing emission prices

The EU Emission Trading System (EU ETS) is a 'cap and trade' system implemented by the EU and European Free Trade Association states. Emission allowances serve as the basis of the ETS and the (annually decreasing) cap on the total available number gives them a value. This system directly concerns the volume of emissions from individual installations and the share of ETS emission accounts for about 45 per cent of total emissions in the states covered.

Prices of emission allowances have soared since the beginning of 2021. They have grown over 50 per cent in just a few months, reaching almost a record high of EUR 50 per tonne at the beginning of May 2021. Rapidly growing emission allowance prices have forced EU industry to call for an urgent introduction of carbon border tax (Sheppard, 2021) as plenty of EU companies lose any competitiveness versus other regions with much lower or no emission prices. It may simultaneously lead to carbon leakage if production should be moved to countries with less stringent environmental controls.

Carbon tax sets the price directly by defining the rate of tax on greenhouse gas emissions.

The price is predefined and subject to top-down administration. For the sake of estimating global climate tax revenues, the study adopts a mixed approach. The EU ETS and its carbon pricing would serve as a benchmark, based on which carbon pricing for energy use by other clubs would be automatically adjusted using a set of socio-economic indicators. As a result, 17 different rates would be determined. The scheme

would be further facilitated by a pool of free emissions, attributed to clubs according to their level of development.

Clubs would also impose a harmonised tariff on their borders on imports from non-participating states: both to incentivise others to join the club and as a means to limit carbon leakage⁷. Without any economic incentives, there is no stable climate coalition other than a non-cooperative, low-abatement one, as confirmed by simulations performed by Nordhaus (2015), but

⁷ The tariff solutions described might run counter to the WTO's international regulations, but the current crisis of the above-mentioned institution as well as the common international drive towards climate protection could be used to introduce essential 'climate amendments' to international trade law.

also by the history of the Kyoto Protocol – it failed to reduce greenhouse gas emissions. In order to make the solution durable and efficient, the

relevant enforcement mechanism would have to operate through a market-based mechanism rather than legal prosecution or targeted sanctions.

(c) Tax design / How much revenue we can get?

In order to estimate the potential revenues from the implementation of the proposed solution, it is necessary to assume the cost of CO₂ emission for each club as well as penalty tariffs for non-participants. The carbon pricing could be based on the historic prices in the EU ETS, serving as a rough approximation of market demand for emissions in

a given economic cycle. This average price for the last 3 years (2017–2019) would serve as a benchmark for other clubs, adjusting it to their levels of socio-economic development. GDP *per capita* at purchasing power parity and the United Nation's Human Development Index (both from 2019 and weighted equally) could serve as variables adjusting price floors.

▸ **Table 3.** Revenues from CO₂ emissions in climate clubs

Climate Club	Annual average of energy use tonnes of CO ₂ emitted in 2014–2016 (in billion tonnes)	Per cent of free tonnes	Potential annual public revenue (USD billion)
European Union	2.9	30	USD 37.2
Australia and New Zealand	0.4	30	USD 5.5
Balkans	0.43	45	USD 2.99
Canada	0.54	30	USD 7.60
South America	0.74	45	USD 4.90
China	10.1	45	USD 63.2
Eurasia	0.72	60	USD 3.03
India	2.33	75	USD 4.78
Japan and Korea	1.7	30	USD 22.66
Latin America and Caribbean	1.87	60	USD 8.09
Poor Mideast	1.5	75	USD 3.26
Rich Mideast	1.0	30	USD 14.98
Russia	1.72	45	USD 13.68
South Africa	0.48	60	USD 1.915
South-East Asia	1.43	75	USD 3.29
Sub-Saharan Africa	0.85	75	USD 1.32
United States	5.11	30	USD 80.88
Total			USD 279.4

Source: estimates based on OECD (2020d).

Some emission allowances would be free.

In the European Union, manufacturing received 80 per cent of its emission allowances for free at the beginning of the roll-out of auctions in 2013. It decreased to just 30 per cent in 2020. Considering different levels of economic development, quotas for free emissions (ranging from a minimum of 30 per cent to a maximum of 75 per cent) would be adjusted to clubs' socio-economic development, using the indicators described in the above paragraph. Owing to such a mechanism, the roll-out of the arrangements described would be progressive and take developmental needs into consideration. The allowances given to industries for free would be distributed to companies on the basis of harmonised rules in order to ensure that installations of a given type are treated equally across the globe.

The penalty tariff on non-participants would remain uniform at 6 per cent on all imported products. According to the C-DICE model by Nordhaus (2015), almost all states would be willing to join clubs once the tariff is set at such a rate (assuming an even higher level of carbon prices). As a consequence, this study only assumes revenues from carbon taxes as the pool of free-riders would be miniscule, only including countries which tend to neglect international agreements anyway⁸.

The overall annual revenue from the introduction of climate clubs would amount to around EUR 279 billion. The system could be further developed by putting a cap on emissions of certain other greenhouse gases (such as N₂O and PFC). The same could apply to the quotas of free emissions. Their cap would be reduced over time so that total emissions should fall further.



⁸ The group includes countries such as North Korea, Cuba, Venezuela, Bolivia, Iraq or Afghanistan.

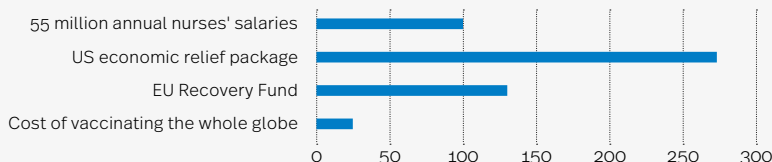
Summary

Countries around the globe could collect around USD 695 billion annually if the three taxes described in this paper should be introduced. It would allow to repair post-COVID-19 deficits and mitigate negative externalities resulting from: the tax race to the bottom, dysfunctionalities brought by tax havens and growing carbon emissions. At the same time, their implementation would not create significant market disruptions as they are targeted at the system's largest beneficiaries.

USD 695 billion is a non-negligible amount which might help solve urgent global problems. Thanks to such revenues, every person on the globe could be vaccinated (with medicinal products approved by the European Medicines Agency) four times a year – it would be very likely to lead to a rapid end of the COVID-19 pandemics. This money

could also be used to cover nearly 55 million nurses' annual salaries every year. In comparison to the largest post-COVID-19 plans – the EU Recovery Fund (USD 905 billion) and the US economic relief package (USD 1.9 trillion) – potential revenues from this proposal would account for 77 per cent and 37 per cent of their respective amounts. However, the above-mentioned programmes are multiannual schemes, whereas the taxes in question would be collected annually. In 2019, it would amount to half of public expenditure in France and markedly exceed annual spending in some of the EU's largest economies – Spain and Poland. As regards developing economies in Africa or Asia, the amount of USD 695 billion represents a multiple of their budgets, as in Nigeria (1,230 per cent) or Thailand (584 per cent).

➤ **Figure 6. Potential revenues from global taxes in relation to selected expenditures (in per cent)**



Source: calculated by the PEI, the cost of vaccines based on Biospace information (2021).

Revenues from introduced taxes should be spent on achieving a common and widely accepted objective. The United Nations' Sustainable Development Goals (SDGs), approved by all 193 states, could serve as such. They are a collection of 17 interlinked global goals designed to be a 'blueprint to achieve a better and more sustainable future for all (UN, 2015)'. A key SDG relates to energy access and efficiency. With USD 695 billion collected annually, it would be likely to fully achieve the goal as its estimated cost ranges between USD

600 billion and USD 800 billion (Vorisek, Yu, 2020). At the same time, thanks to such new taxes, as much as 14 per cent of global annual costs needed to achieve SDGs for all countries around the globe could be secured, significantly boosting the quality of public services in all countries, incl. better education and health. The latter has greatly gained in significance during the COVID-19 pandemics. In 2017, public health spending amounted to USD 4.68 trillion (WHO, 2019); further expenditure needs could be significantly supplemented due to global taxes revenues.

Table 4. SDGs and their financing with global taxes

SDG	SDG yearly cost until 2030 (USD billion)	Ratio of revenues from global taxes to SDG cost (per cent)
Ending hunger, food security, nutrition and sustainable agriculture (SDG 2)	16.8	4136
Water and sanitation (SDG 6) – water, sanitation and hygiene services, wastewater treatment and environmental water quality	166	419
Energy (SDG 7) – access to modern energy services, doubled energy efficiency, doubled share of renewable energy	600–800	115 – 87
Climate action (SDG 13)	123	565
Achieving all the 17 SDGs	5–7	13.9 – 9.9

Source: calculated by the PEI based on the World Bank's estimates (2020).

The tax design would need to be discussed and agreed at an international forum, but revenues would be collected and distributed at the national level. The only condition related to their spending would result from the necessity to allocate them on achieving (or overachieving, as in the case of developed countries) the above-mentioned SDGs. States could individually decide which goals they regard as the most urgent and how to financially address them.

It could be further established whether the proposed taxes could be distributed more symmetrically – the poorest and least developed states would not benefit as much as the most advanced countries. It could tempt them to opt out of global agreements and act as tax havens for flowing capital. Therefore, additional arrangements and

further adjustments would be a must. They could be introduced as a result of ex post regulatory impact assessment carried out in order to estimate early results of the solutions implemented.

As demonstrated by negotiations on global corporate income tax, accelerated in 2021, there is growing international determination to introduce taxes reaching across national borders.

The pandemic has only accelerated this trend, raising awareness of interlinkages between economies and of the lack of tools to deal with challenges at the local level. Politicians will soon move to post-pandemic modus operandi, in an attempt to regain public support. Those able to surf on the wave of social expectations to fight for global reforms could not only gain wide backing, but also make the world a better place.

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