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# A blueprint for a coordinated minimum effective taxation standard for ultra-high-net-worth individuals

Gabriel Zucman — June 25th, 2024

**Summary:** This report presents a proposal for an internationally coordinated standard ensuring an effective taxation of ultra-high-net-worth individuals. In the baseline proposal, individuals with more than \$1 billion in wealth would be required to pay a minimum amount of tax annually, equal to 2% of their wealth. This standard could be flexibly implemented by participating countries through a variety of domestic instruments, including a presumptive income tax, an income tax on a broad notion of income, or a wealth tax. The report presents evidence that contemporary tax systems fail to tax ultra-high-net-worth individuals effectively, clarifies the case for international coordination to address this issue, analyzes implementation challenges, and provides revenue estimations. The main conclusions are that (i) building on recent progress in international tax cooperation, such a common standard has become technically feasible; (ii) it could be enforced successfully even if all countries did not adopt it, by strengthening current exit taxes and implementing "tax collector of last resort" mechanisms as in the coordinated minimum tax on multinational companies; (iii) a minimum tax on billionaires equal to 2% of their wealth would raise \$200-\$250 billion per year globally from about 3,000 taxpayers; extending the tax to centimillionaires would add \$100-\$140 billion; (iv) this international standard would effectively address regressive features of contemporary tax systems at the top of the wealth distribution; (v) it would not substitute for, but support domestic progressive tax policies, by improving transparency about top-end wealth, reducing incentives to engage in tax avoidance, and preventing a race to the bottom; (vi) its economic impact must be assessed in light of the observed pre-tax rate of return to wealth for ultra-high-net-worth individuals which has been 7.5% on average per year (net of inflation) over the last four decades, and of the current effective tax rate of billionaires, equivalent to 0.3% of their wealth.

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#### **Foreword**

In February 2024 the Group of 20, under the presidency of Brazil, convened a meeting of finance ministers during which the taxation of ultra-high-net-worth and individuals and its lack of effectiveness were discussed. The G20 Brazilian presidency invited me to discuss the reasons behind this issue and how enhanced international cooperation could contribute to fix it.

Following this meeting, the Brazilian presidency commissioned this report to explore options to make the taxation of ultra-high-net-worth individuals more effective.

There are, of course, many policies that countries can implement to improve the taxation of the wealthiest individuals. But international coordination on this issue, in the form of a common minimum standard ensuring an effective taxation of ultra-net-worth individuals, would have a clear value added. It would support domestic policies to bolster tax progressivity by reducing incentives for the wealthiest individuals to engage in tax avoidance and by curtailing the forces of tax competition. It could contribute to usher in a new era of multilateralism that would put at its core the fight against inequality and coordination across nations to foster equitable growth.

The G20 has been a driver of international tax reforms over the past decade. Thanks to the leadership of the G20, more than 130 countries and territories have agreed to a common minimum corporate tax for large multinational companies in 2021. What we have collectively done with multinational corporations, we could in principle now do with billionaires. Building on past successes, this report shows that it has become technically possible to implement a coordinated minimum tax on ultra-high-net-worth individuals.

The goal of this blueprint is to offer a basis for political discussions—to start a conversation, not to end it. It is for citizens to decide, through democratic deliberation and the vote, how taxation should be carried out. I hope this report will contribute to this democratic discussion.

I would like to thank the Brazilian G20 presidency for the opportunity to work on such an important issue. I am also grateful to the G20 delegations and guest countries for the valuable comments made during the February and May 2024 sessions and subsequent meetings that fed into this work.

# **Executive summary**

Progressive taxation is a key pillar of democratic societies. A progressive tax system strengthens social cohesion and trust in governments to work for the common good. It is critical to fund the public goods and services—such as education, health care, and public infrastructure—that are engines of economic growth. Changes in the progressivity of taxation have historically been a major driver of the evolution of income and wealth concentration.

Thanks to research conducted in recent years, there is now clear evidence that contemporary tax systems, instead of being progressive, do not effectively tax the wealthiest individuals. These studies, summarized in Section 1 of this report, show that all taxes included, ultra-high-net-worth individuals tend to pay less in tax relative to their income than other social groups, regardless of the specific tax design choices and enforcement practices of countries. This regressivity stems from the failure of income taxes—which in principle constitute the main instrument of tax progressivity—to effectively tax ultra-high-net-worth individuals.

This failure deprives governments of substantial amounts of tax revenues. It contributes to concentrating the gains of globalization into relatively few hands, undermining the social sustainability of global economic integration.

Meanwhile, under the impetus of the G20, there have been improvements in international tax cooperation since the mid-2010s. In 2017, more than 100 countries and territories started exchanging bank data automatically following a Common Reporting Standard. In 2021, more than 130 jurisdictions agreed to a common minimum tax of 15% on large multinational companies. While these policies have limitations, they also show that new forms of international cooperation, long deemed utopian, can emerge in a relatively short period of time. Building on these advances, it has become possible to make the taxation of ultra-high-net-worth individuals more effective through international cooperation.

Section 2 details a proposal for a coordinated minimum standard ensuring that dollar billionaires pay at least 2% of their wealth in individual (income plus wealth) taxes each year. This standard would not require a multilateral treaty and could be flexibly implemented by participating countries through a variety of domestic instruments, including a presumptive income tax, an income tax on a broad notion of income, or a wealth tax.

A minimum tax equal to 2% of wealth on global billionaires would raise \$200-\$250 billion per year in tax revenue from about 3,000 taxpayers globally; extending the tax to centi-millionaires would generate an additional \$100-\$140 billion. By construction, these revenues would be collected from economic actors who are both very wealthy and undertaxed today. Somone who pays more than 2% of their wealth in income tax would have no extra tax liability; only ultrahigh-net-worth individuals with particularly low tax payments would be affected. This standard would effectively address regressive features of contemporary tax systems at the top of the wealth distribution. In the baseline proposal, the tax rate of billionaires would become no lower

than that of middle-class workers. Beyond the revenue gains for governments, there would be benefits in terms of increased social trust and cohesion. Variations over the baseline scenario are also explored.

This international standard would not substitute for domestic tax policies to increase tax progressivity. Instead, as analyzed in Section 3, it would complement and facilitate such policies, because it would improve transparency about top-end wealth, reduce incentives for ultra-high-net-worth individuals to engage in tax avoidance, and constrain international tax competition, preventing a race to the bottom.

There are several potential challenges associated with the proposal formulated in this blueprint. How to value wealth? How to ensure an effective taxation if some jurisdictions declined to implement this standard? How to maximize compliance by taxpayers? Section 4 analyzes these challenges and discusses potential solutions. The world is in a better situation to successfully implement the proposal made in this blueprint today than fifteen years ago. Challenges remain, however. Two issues require particular attention.

First, there are still gaps in international information exchange and in the identification of the beneficial owners of assets. These issues could be tackled by adding beneficial ownership information to the country-by-country reports of multinational companies introduced in 2016 and by creating new forms of cross-border information exchange on ultra-high-net-worth individuals. Since the bulk of billionaires' wealth derives from owning shares in multinational companies, the mere inclusion of beneficial ownership information in country-by-country reports (e.g., listing individuals owning more than 1% of the stock) would allow tax authorities to capture most of their wealth, facilitating enforcement.

Second, a variety of political and geopolitical factors could make it difficult to obtain truly global participation in the proposed common standard. The report discusses possible approaches to limit incentives for ultra-high-net-worth individuals to relocate to non-participating countries, as well as rules to incentivize broad participation. One option involves adapting some of the "tax collector of last resort" mechanisms included in the coordinated minimum tax on multinational companies—rules that allow participating countries to tax non-participating countries' undertaxed multinationals—to ultra-high-net-worth individuals. The report makes proposals along this line, noting that this issue would require an inclusive international discussion.

If a minimum taxation standard on billionaires was successfully enforced, there would also be potential economic costs, such as reduced incentives to work or to accumulate wealth for the affected taxpayers. These costs must be assessed in the context of (i) the observed pre-tax rate of return to wealth for ultra-high-net-worth individuals, which has been around 7.5% on average per year (net of inflation) over the last four decades globally, and (ii) the current effective tax rate of billionaires, equivalent to 0.3% of their wealth.

Everything else equal, a well-enforced minimum tax of 2% would reduce their net-of-tax return from 7.2% (7.5% before tax minus 0.3% in tax today) to 5.5%. Adverse incentive effects are unlikely to be significant at the level of net-of-tax return. Because the population affected would be small, the overall impact of a 2% minimum tax on global economic growth are unlikely to be large. Because the standard is structured as a minimum tax, there are no concerns about double taxation.

Ultimately, it is for each person, as citizen and voter, to weigh the potential benefits and costs of this policy. Are the gains in tax revenues (resources that could be used to support sustained economic development through investments in education, health care, public infrastructure, the energy transition, and climate change mitigation) worth the potential costs? Are there better options?

To inform this assessment, it is useful to consider alternative approaches to improving tax progressivity. Section 5 discusses and quantifies the impact of these other approaches: increasing the progressivity of existing individual income taxes, improving the taxation of estates and inheritance, and regulating harmful tax practices, such as special tax regimes that provide reduced tax rates for wealthy individuals.

While these reforms would be valuable, the main conclusion is that they would not be as powerful as the minimum taxation standard proposed in this blueprint. The key virtue of a minimum tax is that it addresses all forms of tax avoidance at once. The key virtue of expressing the tax as a fraction of wealth is that for ultra-high-net-worth individuals, wealth is harder to manipulate than income. The key virtue of an annual tax—as opposed to one-off tax at the time of death—is that it more effectively safeguards progressivity at the top of the wealth distribution, because it ensures that the individuals with the highest ability to pay taxes cannot postpone taxation for years or decades.

This report takes a primarily economic perspective. Its goal is to clarify how a coordinated minimum tax on ultra-high-net-worth individuals would work, to provide a quantitative analysis of different scenarios, to consider design issues that take seriously the incentives of the different actors affected, and to make explicit the trade-offs involved in the different possible choices (including the choice of the status quo). This blueprint also touches on some legal considerations. Additional legal analysis on specific points would be valuable in future work as the political discussion on these issues progresses.

# 1. The progressivity of contemporary tax systems

#### 1.1. The decline in effective tax rates at the top of the income distribution

A gap in official economic statistics globally is the lack of information about the effective tax rates of ultra-high-net-worth individuals. Government statistical offices typically do not provide information about the wealth owned by these individuals, the income they earn, or the taxes they pay. Some private organizations attempt to fill this gap by piecing together publicly available data to estimate the wealth of the richest people, both globally (e.g., Forbes billionaires list, Bloomberg billionaire index, Wealth-X report) and nationally (e.g., Forbes 400 in the United States, Hurun report in China). These non-official sources, however, only cover the wealth of the super-rich—for which there is valuable information in the public domain due to legal reporting requirements to securities and exchange commissions and chambers of commerce. They do not cover their income or their taxes—for which there is usually no public reporting requirements.

To be sure, information about the taxes paid by the ultra-wealthy exists, but this information is generally confidential. Individual income tax payments are recorded by tax administrations, but this information is not available to the public (except, under certain conditions, in a few countries such as Norway). Tax authorities publish tabulations of income tax returns, but these tabulations do not isolate ultra-high-net-worth individuals from other groups of the population. The top groups considered in these statistics usually include many more taxpayers than dollar billionaires or centi-millionaires. Last, there have been journalistic investigations of the taxes paid by the ultra-wealthy, for instance in the United States by the media ProPublica (Eisinger et al., 2021), but these revelations are by nature not systematic. As a result, there is considerable opacity today about the effective tax rates of the wealthiest individuals, a topic of democratic interest globally.

A recent wave of economic research attempts to address this issue. In the United States, Saez and Zucman (2019a, 2019b) provided the first estimates of the effective tax rates of the 400 richest Americans (who each owned more than \$1 billion in 2010, and more than \$2.9 billion in 2023) by triangulating public data sources. Building on this work, several studies have used confidential administrative data in different countries to provide precise estimates of effective tax rates at the top of the distribution, applying harmonized and internationally comparable methods. This includes the important work of Bruil et al. (2024) in the Netherlands, Bach et al. (2024) in France, and ongoing work by Ring et al. (2024) in Norway and Sweden.<sup>1</sup>

What distinguishes this body of work from earlier studies of tax progressivity is the attempt to capture the very top of the wealth distribution, all the way up to dollar billionaires. Billionaires

<sup>&</sup>lt;sup>1</sup> This work adds to a large literature that attempts to estimate tax progressivity (i.e., how effective tax rates vary across socio-economic groups), see, e.g., Landais, Piketty and Saez (2011) in France, Advani et al. (2023) in the United Kingdom, Atria and Otero (2021) and De Rosa et al. (2022) in Latin America, Blanchet et al. (2022) in Europe, Guzzardi et al. (2023) in Italy.

are very few: in most countries they account for 0.0001% or less of the population. But they matter for at least two reasons. First, they have significant economic and political power through their ownership stakes in large corporations, and in some cases their ownership of media companies and influence on policymaking. Second, data from named lists of wealthy individuals suggest that their wealth has increased particularly fast since the 1980s. Between 1987 and 2024, as detailed in Section 1.3, the average wealth of the top 0.0001% richest households globally has increased by about 7% a year on average net of inflation, much faster than average wealth (3% a year). Billionaires and the businesses they own have been major beneficiaries of globalization. This raises the question of whether contemporary tax systems manage to distribute these gains appropriately, or instead contribute to concentrating them into a few hands.

At the outset, it is worth stressing that the academic study of the effective tax rates of ultrahigh-net-worth individuals is still in its infancy. Comprehensive and comparable statistics are at this stage only available for a handful of countries: the United States, France, the Netherlands, and to some extent Italy.<sup>2</sup> These four countries combined host about 35% of global billionaires and account for about 40% of global billionaire wealth, so the patterns that emerge from these countries provide insights that are relevant for global discussions. Moreover, comparable studies are currently conducted in a growing number of countries (such as Brazil, Norway, and Sweden) and preliminary findings confirm the patterns found previously. That said, there is a need for more studies covering ultimately all the world's countries. Cooperation between tax administrations and researchers is particularly valuable in this area.

In the meantime, the results from existing studies are illustrated in Figure 1. The same methodology, detailed in Appendix A, is followed in each country, maximizing the comparability of the results. In all cases, all taxes collected by governments (at both national and subnational levels) are allocated to individuals, including the corporate tax which is allocated to the owners of the corresponding corporations. All pre-tax national income (as recorded in national account statistics) is also allocated to individuals, including all corporate profits, which are allocated to the owners of the corresponding corporations. Effective tax rates for each group of the population are computed by dividing taxes paid by pre-tax income. Since all taxes and all incomes are included in the analysis, the average tax rate all groups combined is equal to the macroeconomic tax rate (i.e., the ratio of taxes to national income), which is around 50% in France and Italy, 45% in the Netherlands, and 28% in the United States. Three main results emerge.

First, billionaires have relatively low effective tax rates. Instead of being progressive, contemporary tax systems fail to effectively tax ultra-high-net-worth individuals. Most social

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<sup>&</sup>lt;sup>2</sup> In Italy, estimates for billionaires are based on one observation—that of Silvio Berlusconi, who as leader of a political party in Parliament, had to make public his income declared to tax authorities and the amount of taxes paid. As discussed below there is evidence that his case is likely to be representative of other Italian (and more broadly European) billionaires, since the structures used to minimize taxable income and taxes paid were available not only to him but to all European billionaires, and indeed appear to be systematically used by European billionaires.

groups have effective tax rates that are not too different from the average macroeconomic rate of taxation. For instance, in France, the working class (which can be defined as individuals in the bottom 50% of the income distribution), the middle-class (the next 40%), the upper-middle class (the next 9%) and even most of the top 1% have effective tax rates close to the macroeconomic tax rate of 52%. Billionaires, by contrast, only pay 27% of their income in taxes all taxes included. This is only about half of the tax rates paid by all other social groups.

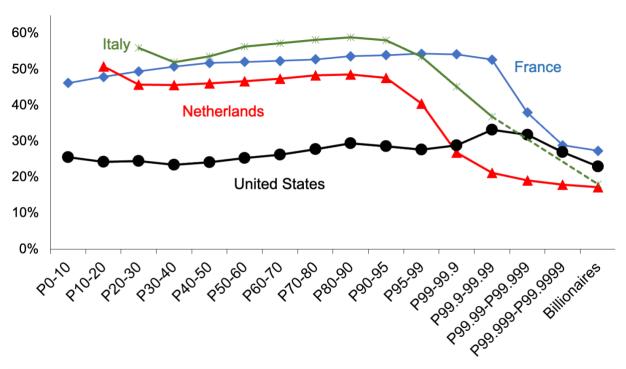


Figure 1: Average tax rates by income groups and for billionaires (% of pre-tax income)

Notes: This figure reports estimates of effective tax rates by pre-tax income groups and for U.S. dollar billionaires in France, the Netherlands, Italy, and the United States. These estimates include all taxes paid at all levels of government and are expressed as a percent of pre-tax income. P0-10 denotes the 10% of adults at the bottom of the pre-tax income distribution, P10-20 the next decile, etc. Pre-tax income includes all national income (measured following standard national account definitions) before taxes and transfers and after the operation of the pension system. Sources and methodology: see Appendix A.

Second, this regressivity is visible across countries with different levels and structure of taxation. The United States is a relatively low-tax countries among high-income countries, while France and Italy are relatively high-tax countries. In the years covered by the studies, France had a wealth tax while Italy did not. All these countries make different choices regarding statutory income tax rates, payroll taxes, and consumption taxes; the United States, for instance, does not have a VAT while the other three countries do. Yet in each case, ultra-high-net-worth individuals pay proportionately less in taxes than socio-economic groups below them.

Last, the regressivity of the tax system, does not start at the same level in the income distribution everywhere. In France and the United States, the decline in effective tax rates starts around the 99.99<sup>th</sup> percentile, while in Italy and the Netherlands it starts around the 95<sup>th</sup> percentile. This

implies that there is no "one-size-fits-all" policy solution to this regressivity. Even with a common minimum tax on individuals above the 99.99<sup>th</sup> percentile, there would be a need for additional measures in countries such as the Netherlands and Italy to offset the regressivity of the tax system between the 95<sup>th</sup> and the 99.99<sup>th</sup> percentile. Moreover, there are legitimate reasons for wanting a progressive tax system—in which higher earners have higher effective tax rates. As detailed in Section 3, a common floor to the effective tax rate of the ultra-wealthy adds value because it limits possibilities for tax competition and would facilitate the implementation of other progressive tax reforms. Such a common floor would support—but not substitute for—domestic policies.

#### 1.2. Why does the income tax fail at the top end?

Why do ultra-high-net-worth individuals benefit from reality low effective tax rates? In a nutshell, because the individual income fails to tax them properly. In principle, the individual income tax should be progressive. One of its goals is to offset the regressivity of indirect taxes, such as the VAT, which absorb a higher fraction of income at the bottom of the income distribution than at the top. In practice, the income tax fails to offset this regressivity at the very top.

To understand the issue, one needs first to note that ultra-high-net-worth individuals derive their income not from the wages they earn, but from the wealth they own—more precisely, in most cases from the businesses they own. These businesses make profits, which are typically subject to the corporate income tax. The core limitation of the individual income tax is that wealthy individuals can structure their wealth to report little to no taxable individual income, and thus avoid the individual income tax. This tax avoidance is done in two main ways: (i) by avoiding dividend distribution and capital gains realizations; (ii) by using holding companies and similar legal structures.

#### Avoidance of dividends and capital gains realization

First, people with controlling stakes in corporations can instruct these companies to avoid distributing dividends.<sup>3</sup> When no dividend is paid out, profit is reinvested in the corporation. This reinvestment contributes to increasing the value of the company, boosting its share price. When shareholders sell their shares, they realize capital gains, which in many countries are subject to individual income taxation. However, by holding onto one's shares, this tax on capital gains can also be avoided. Thus, by avoiding dividend distributions and capital gains realizations, people with controlling stakes in corporations (such as majority owners of private corporations, or people with significant voting rights in publicly listed firms) can avoid reporting any taxable income.

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<sup>&</sup>lt;sup>3</sup> Some of the largest publicly listed companies on the planet (partly owned by some of the wealthiest people in the world) do not pay out dividends, such as Amazon and Tesla; many others have very low payout rates, such as Alphabet and Meta. Dividend distribution policies of privately held companies are typically not publicly disclosed.

Two remarks are in order. First, even when wealthy individuals report no taxable income, they do earn economic income—their share of the profits made by the companies they own. Even if this economic income is not distributed as dividends, it is neither "virtual" nor "trapped" in any meaningful sense. Income can either be saved or consumed. When a firm's profit is not distributed, this income is saved and reinvested in that firm, adding to the wealth of its owners. Ultra-high-net-worth individuals can also consume that income, e.g., by borrowing money (for instance by pledging shares in their firms as collateral) and using the—tax free—proceeds of such loans to buy goods and services. The proceeds of these loans can also be used to invest in other assets, such as shares in other companies. In sum, even when billionaires avoid reporting any taxable income, they can use their economic income to save, to diversify their wealth, or to consume.

Second, ultra-high-net-worth individuals are not the only ones to benefit from this form of tax avoidance: in principle, less wealthy individuals can also invest in non-dividend paying companies and avoid realizing capital gains. In many countries there are also other forms of tax-exempt income, for instance investment income earned in retirement accounts. What makes the situation of ultra-high-net-worth individuals distinctive is that these individuals can shield virtually *all* their income from the income tax, because for them virtually all income derives from their ownership of businesses. As one moves down the income distribution, a growing fraction of income derives from wages, pension income, and other income sources which cannot avoid the individual income tax.

#### Use of holding companies

The second method used by ultra-high-net-worth individuals to avoid the income tax involves the use of personal wealth-holding companies and similar legal structures. These holdings serve as nominal owners of shares in a corporation. Dividends paid by that corporation are formally received by another company (the holding) and as such free of the individual income tax. Dividends received by holdings are also free of the corporate tax in most countries. For the same reasons as those mentioned above, these dividends, even if formally paid to a holding, are neither "virtual" nor "trapped" in any meaningful sense. They constitute economic income that can be used by the persons who control the holdings to save, to diversify their wealth, or to consume. The main difference is that when dividends are paid to a holding, the individual income tax is avoided.

Some countries have anti-abuse provisions that limit—and in some cases prevent—the use of holdings for income tax avoidance purposes. This has most notably been the case of the United States since two laws passed in the first half of the twentieth century, as described, e.g., in Saez and Zucman (2016). The first of these provisions, the accumulated earnings tax—in force since 1921—is levied on the undistributed corporate profits deemed to be retained for tax avoidance

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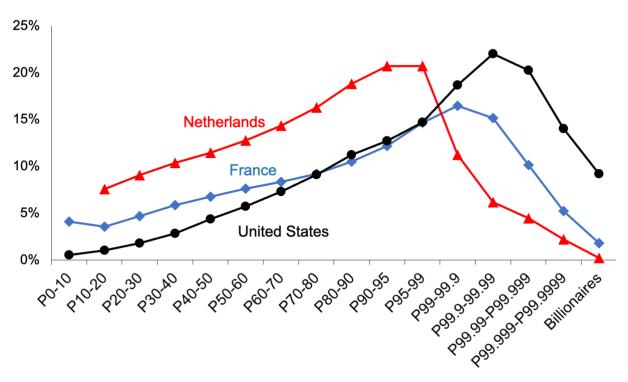
<sup>&</sup>lt;sup>4</sup> There can also be consumption within the firm. For instance, the profit of a private company may be used by its owner for personal expenses. Using corporate income for personal consumption without first a dividend distribution is typically illegal, but this form of tax evasion can be hard to detect (e.g., because consumption can be hard to observe). It can also be in a grey zone between avoidance and evasion (e.g., because the frontier between personal consumption expenditures and legitimate firm expenses can be fuzzy), complicating enforcement.

purposes. The second, the personal holding company tax in place since 1937, is a 20% surtax that applies to the undistributed income of a personal holding company. These provisions effectively prevent wealthy individuals from avoiding the income tax by retaining income in holdings. Consequently, the use of personal wealth-holding companies is limited in the United States.

In European countries, where anti-abuse rules are weaker, studies suggest that the use of holding companies is widespread among ultra-high-net-worth individuals. These holdings allow owners of large stakes in dividend-paying companies to avoid dividend taxation. As a result, in these countries effective income tax rates converge to nearly zero at the top of the wealth distribution.

This is illustrated by Figure 2, which shows how individual income tax rates vary across the income distribution in the United States, France, and the Netherlands. As in Figure 1, effective tax rates for each group of the population are computed by dividing taxes paid by pre-tax income, using the same definition of taxes and pre-tax income in each country. The only difference with Figure 1 is that here only the individual income tax is considered; other taxes (such as consumption taxes and the corporate tax) are excluded.

Figure 2: Effective income tax rates by income groups and for billionaires (% of pre-tax income)



Notes: This figure reports estimates of effective income tax rates by pre-tax income groups and for billionaires in France, the Netherlands, and the United States. These estimates include all individual income taxes (and equivalent levies) paid at all levels of government and are expressed as a percent of pre-tax income. P0-10 denotes the 10% of adults at the bottom of the pre-tax income distribution, P10-20 the next decile, etc. Pre-tax income includes all national income (measured following standard national account definitions) before taxes and transfers and after the operation of the pension system. Sources and methodology: see Appendix A.

As shown by Figure 2, the individual income tax is progressive for most of the population, before becoming sharply regressive at the very top end of the distribution. Effective income tax rates rise from about 0%-5% at the bottom of the income distribution to a high of 15%-20%, depending on the countries. They then start to fall. The regressivity starts around the 95<sup>th</sup> percentile of the pre-tax income distribution in the Netherlands, the 99.9<sup>th</sup> percentile in France, and the 99.99<sup>th</sup> percentile in the United States. Effective income tax rates collapse to nearly 0% in the Netherlands, 1.7% in France, and about 8% in the United States for billionaires.

Income tax rates are close to zero at the top in France and the Netherlands because of the quasi-systematic use of holding companies. They are higher in the United States due to the anti-avoidance rules that prevent the use of such holdings. Despite these anti-avoidance rule, the income tax remains regressive at the very top of the distribution in the United States, because ultra-high-net-worth individuals can still avoid taxes by instructing the companies they control to avoid paying dividends and by avoiding the realization of capital gains. In all cases, the individual income tax fails at effectively taxing the individuals with the highest ability to pay taxes.

In the Netherlands and France (and plausibly in many countries other than the United States), since the individual income vanishes for billionaires, the main tax in effect paid by these individuals is the corporate income tax they indirectly pay through the corporations they own. In France, the 27% effective rate of billionaires when including all taxes (Figure 1) comes from 1.7% of individual income taxes (Figure 2) plus about 25% of corporate taxes; see Bach et al. (2024). Other taxes (such as consumption taxes) are negligible relative to income at that level of income. Similarly, in the Netherlands, the "all-in" effective tax rate of 17% for billionaires is almost entirely due to the corporate tax (Bruil et al., 2024).

#### 1.3. Effective taxation and the dynamics of global billionaire wealth

Why does it matter if billionaires have relatively low tax rates? First there is a loss of tax revenue for governments. As we shall see in Section 2.5 below, a minimum tax ensuring that the effective tax rate of dollar billionaires (all taxes included) does not fall below that of other social groups would generate about \$250-\$250 billion globally. This is the mechanical loss of tax revenue caused by the under-taxation of billionaires today, relative to a benchmark of non-regressivity.

Tax avoidance at the top of the wealth distribution also has a dynamic effect on wealth concentration. To see this, denote by  $W_t$  the wealth of an individual at the end of year t. The dynamic equation of wealth accumulation between t and t+1 can be written as:

$$W_{t+1} = (1 + \tilde{R} - \tau).W_t + \tilde{b}$$

<sup>&</sup>lt;sup>5</sup> The effective corporate tax rate of billionaires appears higher in France (about 25%) than in the Netherlands (less than 17%). Part of the explanation is likely that in 2016 (the reference year for both studies), the statutory corporate tax rate was higher in France (34.4%) than in the Netherlands (25%).

where  $\tilde{R}$  is the stochastic rate of return to wealth (net of any capital tax paid at the corporate level),  $\tau$  denotes individual capital income and wealth tax paid (expressed as a fraction of wealth), and  $\tilde{b}$  any (possibly stochastic) labor income net of consumption and other taxes and transfers. It is well known (see, e.g., Benhabib and Bisin, 2018, for a review of this literature) that under a number of regularity conditions (i) such stochastic processes converge to a stationary distribution, (ii) the stationary distribution has a Pareto upper tail, and (iii) the Pareto coefficient, which governs the concentration of wealth, depends on the average net-of-tax rate of return  $\tilde{R} - \tau$ . A lower average individual capital tax rate  $\tau$  (for instance due to low taxation of ultra-high-net-worth individuals) increases the net-of-tax return, leading to a higher stationary concentration of wealth.

If the net-of-tax return to wealth rises with wealth, then the wealth accumulation process is explosive: the distribution of wealth admits no stationary equilibrium. This will happen if wealthier individuals on average have higher pre-tax returns (e.g., due to globalization) and the tax system fails to offset this returns differential through a progressive enough tax system. It will also happen if individuals have the same pre-tax rate of return, but the capital tax system is regressive with wealth (i.e., if  $\tau = \tau(W)$  falls with W). Then as long as the net-of-tax rate of return  $R - \tau$  is positive for the wealthiest individuals, the distribution of wealth is non-stationary: wealth concentration will keep rising over time.

#### The regressivity of contemporary capital tax systems

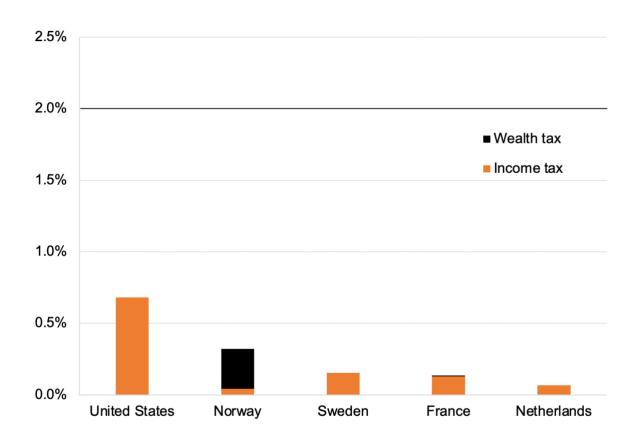
This analysis highlights that the individual capital tax rate,  $\tau = \tau(W)$ , plays a critical role for the dynamic of wealth inequality. For billionaires, whose income almost entirely derives from capital, this tax rate is equal to the amount of individual income tax plus individual capital tax (taxes on the stock of wealth), expressed as a fraction of wealth. For other individuals, whose income derives at least in part from labor, this tax rate includes only the fraction of individual income taxes that correspond to taxes on capital income (i.e., taxes on dividends, capital gains, rents, interest, etc.) plus individual capital taxes. In both cases these tax rates exclude business-level capital taxes (whether on the flow or on the stock), most importantly the corporate income tax.<sup>6</sup>

Figure 3 reports the individual capital tax rate for billionaires in the four countries studied so far, as well as in Norway and Sweden based on the ongoing work by Ring et al. (2024). For comparison the Figure also reports a flat line at 2%, indicating the minimum amount of tax that billionaires would have to pay under the baseline proposal formulated in this report.

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<sup>&</sup>lt;sup>6</sup> One could also define R so that it is gross of any capital tax paid at the business level (corporate income tax and business property taxes) and  $\tau$  includes both individual-level and business-level capital taxes; this would increase R and  $\tau$  by the same amount, more so at the top of the wealth distribution—where business wealth accounts for a greater fraction of total wealth—than further down. By construction this would not change net-of-tax returns for any group (and the fact that billionaires have had higher net-of-tax returns than the rest of the population), but it would alter some interpretations, as discussed below. The advantage of considering returns that are net of business-level capital taxes is that these returns are more comparable to market rates of returns (such as observed returns to equity), which are also net of business-level capital taxes.

Figure 3: Individual taxes paid by billionaires (% of wealth)



<u>Notes</u>: This figure reports estimates of individual capital tax rates for billionaires in France, the Netherlands, the United States, Sweden, and Norway. These tax rates are obtained by dividing the amount of individual income taxes paid and wealth taxes paid (at all levels of government) by wealth. All individual income tax paid are assumed to correspond to taxes on capital income; residential property taxes (which are very small for billionaires) and other capital taxes other than wealth taxes are neglected. Sources and methodology: see Appendix A.

The figure shows that billionaires have extremely low individual capital tax rates  $\tau(W)$ : they pay the equivalent of only 0% to 0.6% of their wealth in individual taxes. The individual capital tax rate is close to 0% for ultra-high-net-worth individuals in countries such as the Netherlands where, as we have seen, the individual tax fails to tax billionaires. It is a bit higher (about 0.6% of wealth) in the United States, due to the stronger anti-avoidance rules preventing the use of holding companies. In all cases, the effective capital tax rate of billionaires is very low relative to their pre-tax rate of return to wealth, which is of the order of R = 7.5% (as detailed below).

The capital tax rate for billionaires is low even in countries with wealth taxes, France and Norway. This result illustrates the severe limitations of the historical experience with wealth taxation. Past and existing wealth taxes have so far failed to significantly tax ultra-high-networth individuals, due to a combination of exemptions (most importantly for owner-managers

<sup>&</sup>lt;sup>7</sup> Just like individual capital taxes of billionaires are very low when expressed as a fraction of wealth ( $\tau = 0.3\%$  of wealth), they are also very low when expressed as a fraction of income:  $\tau/R = 4\%$  of income.

of large companies), design issues (mechanisms capping the amount of wealth tax owed to a fraction of taxable income; preferential valuation for closely-held businesses), and poor enforcement; see, e.g., Saez and Zucman (2022) and Bergolo et al. (2023) for a discussion. Bach et al. (2024) show that due to these issues, billionaires paid no significant amount of wealth tax in France in 2016, the year covered by their study (the French wealth tax was abolished in 2018). In Norway, even though design issues are less severe than in France, the effective wealth tax rate of billionaires does not exceed 0.3%, significantly below the top statutory tax rate of 0.85%.

The consequence of the failure of the individual income tax (and wealth taxes when they exist) is that billionaires have lower effective *capital* tax rates than the average person. On average, people in the countries considered in Figure 3 pay the equivalent of around 1.1% of their wealth in individual capital taxes. The rate for billionaires is only about a quarter of that. One notable contributor to this imbalance is residential property taxes, which are significant in many country (typically of the order of 1% of housing wealth). Residential property taxes are a tax on wealth, but on a specific form of wealth—real estate. This form of wealth accounts for the bulk of wealth for the middle-class, but for a vanishingly small fraction of wealth for ultra-high-networth individuals. In effect the middle-class is subject to wealth taxation, while billionaires are largely free from wealth taxation.

#### The dynamics of global billionaire wealth

A simple computation illustrates the role played by the relatively low tax rates of billionaires in the fast rise of their wealth since the 1980s. According to data compiled by *Forbes*, the wealth of global billionaires has grown on average by 7.1% (net of inflation) per year between 1987 and 2024. With a capital tax rate of 0.3% and consumption equivalent to 0.1% of wealth, this growth rate implies a gross return to wealth of 7.5% per year. This is higher than the comparable average global pre-tax return to wealth, which can be estimated to be in a range of around 6%-7% over this period. This returns differential is larger after tax: around 7% for billionaire vs. 5%-6% for the average person globally. Instead of being offset by the tax system, the difference in pre-tax returns has been magnified by it. In this accounting, about half of the excess net return of billionaires owes to their relatively low individual capital tax rates. <sup>10</sup>

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<sup>&</sup>lt;sup>8</sup> This rate is computed as the total amount of individual capital income, property, and wealth tax revenue collected by governments, divided by the total amount of household wealth.

<sup>&</sup>lt;sup>9</sup> With a global capital share of income  $\alpha$  of 25%-30% and a wealth/income ratio  $\beta$  of 400%-600%, one gets on real average return to wealth (before any tax)  $r = \alpha/\beta = 5\% - 6\%$ ; see Piketty and Zucman (2014) for a discussion and estimates for the 8 largest high-income economies, see also the World Inequality Database WID.world for updated and extended series on global capital shares and wealth/income ratios. For comparability with the rate of return computed for billionaires, two adjustments need to be made. First, pure capital gains (i.e., the increase in asset prices above and beyond consumption prices and above and beyond what can be mechanically explained by retained earnings) need to be added. The rate of pure capital gains can be estimated to be of the order of 2% over this period globally, see, Bauluz, Novokmet and Schularik (2022, Table 4). Second, one needs to deduct business-level capital taxes (corporate taxes and business property taxes), which amount to close to 1% of wealth globally. Hence a global average pre-tax return to wealth of 6%-7%.

<sup>&</sup>lt;sup>10</sup> The individual capital tax rate lower is lower by about 0.8 percentage points for billionaires (0.3%) relative to the average person (1.1%). Given a net-of-tax return for billionaires of 7.2% and for the average person of 5% to 6%, the lower capital tax rate of billionaire explains 36% to 66% of the difference in net-of-tax returns. When

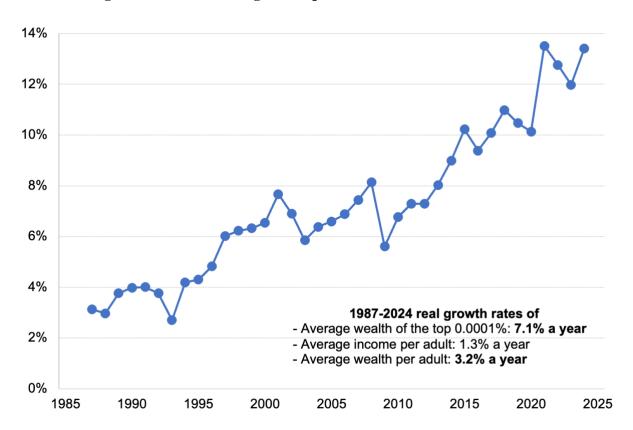


Figure 4: Wealth of the global top 0.0001% (as a % of world GDP)

Notes: This figure reports the evolution of the wealth owned by the top 0.0001% wealthiest households globally, expressed as a fraction of world GDP. In 2024, the top 0.0001% (1 household out of 1 million) includes about 3,000 households, which corresponds broadly to the number of dollar billionaires according to Forbes; hence in 2024 the wealth of the top 0.0001% is nearly equal to the wealth of global billionaires (\$14.4 trillion according to *Forbes*, or 13% of world GDP). In earlier years, the top 0.0001% includes households with less than \$1 billion; their wealth (not reported by *Forbes*, which focuses on dollar billionaires) is estimated using Pareto-interpolation techniques. Growth of global income per adult is taken from the World Bank; growth of global wealth per adult is estimated by assuming a rise in the global wealth/income ratio from 300% in 1987 to 600% in 2024, in line with available evidence (e.g., Chancel et al., 2022).

These low rates make it possible for ultra-high-net-worth individuals to add to their wealth at a faster pace than the rest of the population, leading to an explosive wealth accumulation process. Figure 4 illustrates this dynamic by plotting the evolution of the wealth of global billionaires (adjusted for the size of global population), scaled by world GDP, from 1987 to 2024. In 2024 there are about 2,900 billionaire households (defined as single individuals or married couples, with children dependents if any) according to *Forbes*. This corresponds to roughly 0.0001% of all households globally: about 1 out of 1 million households has more than \$1 billion in wealth today. Before 2024, there were fewer than 0.0001% of all households with more than \$1 billion in wealth. The wealth of these quasi-billionaire households is estimated using standard Pareto-interpolation techniques.<sup>11</sup> This correction is necessary to avoid showing a spurious rise in

counting business-level capital taxes as part of taxes paid (as opposed to part of the gross return), then a smaller fraction of the net return differential can be attributed to the tax system. In that case the interpretation is slightly different: differentials in gross returns are large, and contemporary tax systems are not progressive enough to offset a meaningful fraction of this large differential.

The share of wealth owned by billionaires within the top 0.0001% is  $(b/0.0001)^{\frac{a-1}{a}}$ , where a is the Pareto coefficient (equal to about 1.3 – 1.4) and b is the fraction of global households who are dollar billionaires.

"billionaire wealth" which would be caused by the increase in the number of billionaires over time.

As shown by Figure 4, the wealth of the top 0.0001%, expressed as a fraction of world GDP, has been multiplied by a factor of more than four since the mid-1980s. In 1987, the top 0.0001% owned the equivalent of 3% of world GDP in wealth. This wealth gradually rose to 8% of world GDP on the eve of the global financial crisis of 2008-2009. It briefly fell during the crisis, and then rose fast to exceed 13% of world GDP in 2024. The average growth rate of this group of the population is 7.1% per year net of inflation. For comparison, average income per adult has grown 1.3% a year. The wealth of global billionaires has grown faster than not only average income, but also average wealth (+3.2% per year). Most of the rise of billionaires' wealth relative to world GDP owes to a rise in the concentration of wealth itself.

As long as ultra-high-net-worth individuals keep having higher net-of-tax returns than the rest of the population, their share of global wealth will keep rising—an unsustainable path. This is a plausible scenario if the world keeps getting increasingly economically integrated. Most of the wealth of billionaires derives from their ownership stakes in multinational companies, which benefit from low trade costs, free capital movements, and strong cross-border property rights to access larger markets, boosting their profit and valuation.

To obtain a stationary wealth distribution, one needs either a reduction in pre-tax return at the very top, or more effective capital taxes at the top of the distribution. While there are certainly policies that may reduce pre-tax returns differentials—such as certain protectionist policies that would reduce the profits of multinational corporations—they may entail high efficiency costs and could reduce welfare for large segments of the population. It is thus worth considering tax policies that could increase the effectiveness of taxation at the very top of the wealth distribution.

# 2. A proposal for a coordinated minimum taxation standard

#### 2.1. Baseline proposal: a 2% minimum tax on global billionaires

The baseline proposal made in this blueprint involves ensuring that dollar billionaires (about 3,000 taxpayers today) pay at least 2% of their wealth in individual taxes each year. The individual taxes taken into account to compute this minimum would be individual income taxes, wealth taxes, and economically equivalent levies. Payroll taxes, property taxes, corporate taxes, consumption taxes, or other business-level and indirect levies would not be considered.

A minimum tax is the most powerful tool to improve the effectiveness of the taxation of ultrahigh-net-worth individuals, because it ensures that no matter the avoidance strategies these taxpayers may use, the amount of tax effectively paid cannot fall below a certain amount. A key question is relative to what the minimum tax should be computed. Should it be expressed as a fraction of taxable income, or as a fraction of some other notion of income, of wealth, of consumption? For ultra-high-net-worth individuals, the most robust point of reference is wealth itself, because income flows are not well defined at the very top of the distribution, while wealth is. Wealth is the market value of one's non-financial and financial assets, net of debts. At the top of the wealth distribution, the bulk of wealth consists of shares in companies. Data from named lists of wealthy individuals indicate that about half of the wealth of global billionaires is held in shares of publicly listed companies, for which market values are observable.

Fundamentally, this minimum tax should be seen not as a wealth tax, but as a tool to strengthen the income tax. A billionaire who already pays the equivalent of 2% of their wealth in income tax (e.g., because that person realizes a significant amount of capital gains or earns a significant amount of dividend income directly) would have no extra tax to pay. Only billionaires who currently pay less than 2% of their wealth in tax would have to pay more. Their individual income tax payments would be topped up to reach 2% of wealth. This mechanism differs from a wealth tax of 2% for billionaires. A wealth tax would come in addition to any individual income tax paid, while the minimum tax proposed here would merely offset the failure of the income tax, when it fails.

Technically, the minimum tax proposed here is what is known as a presumptive income tax. The idea is that a billionaire who reports little taxable income—and as a result pays little income tax—must be presumed to earn economic income that is not being captured by the tax code. As discussed in Section 1.2, recent research highlights the large gap between economic income and taxable income at the top of the wealth distribution. Billionaires earn large amounts of economic income—their share of the profits made by the businesses they own—but can report no taxable income by avoiding dividend distributions and capital gains realization.

A concern with taxes computed in reference to wealth is the issue of liquidity. Liquidity problems can be genuine for people with little economic income (e.g., owners of assets with a low rate of return). Billionaires, as we have seen, have significant economic incomes, with rates of return to wealth of 7.5% (net of inflation) on average per year since the 1980s. Because the proposed rate (2% in the baseline proposal) is significantly below this rate of return, and the tax is structured as a minimum tax (thus avoiding double-taxation issues), liquidity issues should be limited. Ultra-high-net-worth individuals also have access to liquidity through various means, such as bank loans.

#### 2.2. Coordination while respecting national sovereignty

The minimum tax proposed in this blueprint would set a common standard while respecting national sovereignty. Participating countries would need to agree on a common norm (say, that billionaires must pay at least 2% in tax each year), a norm which they would then enforce through domestic measures. A variety of domestic tools can be used to ensure that ultra-high-net-worth individuals pay the agreed minimum, including a presumptive income tax, an income tax on a broad notion of income, or a wealth tax. Any of these taxes would qualify as a valid

implementation of the standard, as long as the tax payments of ultra-high-net-worth individuals meet the internationally agreed minimum (say, 2% of wealth) as a result. This approach accommodates the variety of national legal and fiscal traditions, as well as potential constitutional constraints on the use of certain instruments. It combines coordination with flexibility, maximizing the number of countries that could join the common standard.

#### **Presumptive income taxation**

With a presumptive income tax, ultra-high-net-worth individuals would be presumed to earn a certain fraction of their wealth in income. For instance, billionaires could be presumed to earn 6% of their wealth in economic income. This would correspond to a gross rate of return to wealth of 6%—close to, if anything slightly lower than, the average pre-tax rate-of-return to wealth globally, which as shown in Section 1.3 has been around 6%-7% on average per year since the 1980s. To arrive at a minimum tax rate of 2% when expressed as a fraction of wealth, this imputed income would have to be taxed at a rate of 33%. In practice, billionaires would also compute the amount of tax normally owed according to the regular income tax code; they would then pay the greater of the two numbers. A person reporting a large amount of taxable income would typically not be affected by the presumptive income tax. Vice versa, someone reporting little taxable income would be affected by it.

There is a long experience with presumptive taxation in some countries. A presumptive income tax was created in Colombia 1974. Presumed income was supposed to equal 8% of wealth. This rate was gradually reduced since the 2000s and the presumptive income tax was abolished in 2021. The main goal of the presumptive income tax was to ensure a minimum income tax payment by wealthy individuals, to combat tax avoidance and evasion, and to stabilize revenue collection in the face of variations in the economic cycle. A lesson from this experience is that a presumptive income tax is maximally useful when wealth is comprehensively and accurately measured. Measuring wealth can be difficult when most of it is in the form of small private business assets or other assets with no immediately observable market value. A major difference with the minimum tax proposed in this blueprint is that by contrast, and as detailed in Section 4.1 below, most of the wealth of ultra-high-net-worth individuals is in assets for which market values are readily available.

#### Wealth taxation

Another simple implementation of the proposed minimum tax would be with a wealth tax. If the wealth tax rate is at least 2% on billionaires, then by definition this tax would fulfill the international standard. As with presumptive income taxation, to maximize effectiveness it is key to include all forms of wealth in the base, to rely on observable market values to measure wealth, and to approximate market values when these values are missing, as detailed in Section 4.1.

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<sup>&</sup>lt;sup>12</sup> In Colombia, when presumed income exceeded taxable income, this "presumptive excess income" could (subject to some limitations) be deducted from future taxable income. The presumptive income tax remained binding for taxpayers who repeatedly reported less taxable income than 8% of their wealth.

#### Income tax on a broad notion of income

Yet another way to implement the tax would be with a tax on a broad notion of income including unrealized capital gains, such as the "billionaire minimum income tax" proposed in the United States by the administration of Joe Biden. This billionaire tax would affect Americans with more than \$100 million in wealth and subject their income, defined broadly to include unrealized capital gains, to a minimum individual income tax rate of 25%. This tax would in effect subject the full pre-tax return to wealth of ultra-high-net-worth Americans to a minimum individual tax rate of 25%, no matter whether this return takes the form of dividends, of realized capital gains, or of unrealized gains.

With a gross return to wealth of more than 8%, a 25% minimum tax on broad income including unrealized gains is equivalent to a minimum tax of more than 2% of wealth. To assess whether the "billionaire minimum income tax" would effectively implement the standard proposed in this blueprint, consider the return to wealth for ultra-high-net-worth Americans. According to data collected by *Forbes*, the wealth of the 400 richest Americans (adjusted for population size, i.e., the top 0.00025% wealthiest households) has grown by 10.6% per year on average in nominal terms between 1982 and 2023, implying a gross annual average pre-tax return of about 11.3%. <sup>14</sup> Enforcing the "billionaire minimum income tax" would thus on average implement the proposed international standard. In fact, given observed rates of return for ultra-high-networth Americans, the "billionaire minimum income tax" is more ambitious than the proposed 2% international standard: a 25% minimum tax applied to a gross return of 11.3% is equivalent to a minimum tax of 2.8% of wealth.

Naturally, the 11.3% gross return is an average. Because there is heterogeneity in returns (both across individuals, and for a given individual over time), one may fear that a tax on broad income may not always be enough to implement the international standard proposed in this blueprint. However, two provisions of the "billionaire minimum income tax" alleviate this concern.

First, the tax proposed in the United States includes a one-off 25% tax on the current stock of unrealized capital gains, payable over 9 years. Saez, Yagan and Zucman (2021, Table 1) estimate that in 2020, unrealized capital gains accounted for 54% of the wealth of Americans with more than \$100 million in wealth. Given the post-Covid rise in the U.S. stock market, we can estimate that this share reached about 60% in 2024. The 25% one-off tax on the stock of unrealized gains would thus be equivalent to a 15% one-off wealth tax (25% times 60%), or a 1.67% annual wealth tax over 9 years. Given that U.S. billionaires appear to pay around 0.5% or more of their wealth in individual income taxes annually (Figure 3 above), this additional

<sup>&</sup>lt;sup>13</sup> See U.S. Department of the Treasury, "General Explanations of the Administration's Fiscal Year 2025", pp. 83-85, available online at <a href="https://home.treasury.gov/system/files/131/General-Explanations-FY2025.pdf">https://home.treasury.gov/system/files/131/General-Explanations-FY2025.pdf</a>. See also Saez, Yagan and Zucman (2021).

<sup>&</sup>lt;sup>14</sup> Assuming an individual tax rate equivalent to 0.6% of wealth, a consumption rate of 0.1% of wealth, and negligible labor income. This return is slightly higher than the pre-tax return to wealth of the global top 0.0001%, which has been 7.5% a year net of inflation on average over the period 1987 to 2024 (as detailed in Section 2.3), corresponding to a yearly average gross return (i.e., before subtracting inflation) of 9.2%.

1.67% tax alone would be enough to implement the proposed 2% global standard in the next 9 years even if no additional capital gains were made in those years.

Second, the "billionaire minimum income tax" includes mechanisms allowing taxpayers to spread out payments and thus to smooth out variation in returns. Taxpayers would be allowed to pay the minimum tax in five equal, annual installments. Given the structurally high returns observed at the top of the U.S. wealth distribution, it is likely that in years when they make low returns billionaires would typically still be liable for installments owed from prior high-return years. This could ensure that even in low-return years, their total tax payments add up to 2% of their wealth or more. In sum, a "billionaire minimum income tax" in the United States would implement a 2%-of-wealth minimum tax standard in the next 9 years, and plausibly so after that.

#### The value of flexibility

The different possible implementations of the coordinated minimum tax proposed in this blueprint all have potential strengths and weaknesses. A presumptive income tax and a wealth tax implement the standard with certainty. A presumptive income tax stays firmly in the realm of income taxation (thus overcoming potential issues about the constitutionality of wealth taxes that might arise in certain countries), as does a tax on a broad notion of income including unrealized capitals. A tax on unrealized capital gains provides less certainty (given returns heterogeneity), but that uncertainty and the implied volatility in tax revenues can be addressed through proper smoothing mechanisms.

In the end, allowing flexibility in the choice of the domestic instrument used to implement the standard means that each country can choose the instrument that best fits its circumstances, its legal context, its fiscal tradition, and its existing information reporting system. This approach is likely to maximize the number of countries that could join the common standard.

#### 2.3. Tax revenue estimation

#### Baseline proposal: 2% tax on billionaires

According to the available data, the baseline scenario considered in this report—a 2% minimum tax on global billionaires—would generate around \$200-\$250 billion in tax revenue annually. To obtain this estimate, I use the following data and make the following assumptions.

I start from *Forbes* global billionaire data, according to which in 2024 there were about 2,800 billionaires (in US dollars) who collectively owned \$14.2 trillion in wealth. I then combine existing studies estimating the current effective individual tax rates of billionaires, summarized in Figure 2. Specifically, I estimate the global average individual tax rate of billionaires by taking the arithmetic average of the rate of US, French, and Dutch billionaires. This average is equal to 0.3% when expressed as a fraction of wealth. In effect this computation assumes that France and the Netherlands are representative of countries other than the United States.

As discussed in Section 1 this assumption is plausible given the widespread availability of the income tax avoidance mechanisms that lead to the low effective rates observed for French and Dutch billionaires. Figure 3, reporting the results of ongoing work in Sweden and Norway, also lends support to this assumption. Additional studies in more countries (especially non-European countries) would be valuable to refine it, however. Under this assumption, a 2% minimum tax on global billionaires, if perfectly enforced, would increase their individual tax payments by the equivalent of 1.7% of their wealth.<sup>15</sup>

Last, I make assumptions about tax avoidance and evasion. In a high-end scenario, I assume the tax would be well enforced. A 2% minimum tax on global billionaires would then raise \$242 billion in 2024. In a low-end scenario, I assume that 20% of the revenues would be lost due to tax avoidance and evasion. This corresponds to a higher rate of avoidance/evasion than the 15% typically used in the literature to score wealth tax proposals (e.g., Saez and Zucman, 2019a). In this low-end scenario, a 2% minimum tax on global billionaires would raise \$193 billion in 2024. In both cases the revenues involved are significant, given the small population of taxpayers affected. They are similar—if anything slightly larger—than the expected revenues from the global minimum tax of 15% on the multinational companies (Alstadsæter et al., 2023; OECD, 2024).

#### **Extending the tax to centimillionaires**

There is no reason to subject only billionaires—an arbitrary threshold—to a minimum tax. One virtue of considering billionaires is that this group of individuals is small and visible, facilitating enforcement. Moreover, existing evidence (Figures 1 and 2) shows that billionaires have particularly low personal income tax rates, since taxable income tends to become vanishingly small relative to wealth for this group. This indicates that the revenue potential of a minimum tax expressed as a fraction of wealth is particularly large for this group.

Even if the goal is to tax billionaires, it would be necessary to collect information on wealth for a broader population, for at least two reasons: (i) to be able to identify billionaires, and (ii) to structure the tax to avoid a discrete jump in tax liability at the \$1 billion threshold. For these reasons it is useful to consider a minimum tax starting at a lower wealth threshold. Following the "billionaire minimum income tax" proposed in the United States, I consider a minimum tax starting at \$100 million in wealth.

Using standard Pareto-interpolation techniques, it is possible to provide a rough estimate for the revenues of a 2% minimum tax on centimillionaires. Because there are many more centimillionaires than billionaires and their wealth is less well documented, estimates need to be taken with care. According to the World Inequality Report 2022 (Chancel et al., 2022), in 2021 there were about 65,000 adults with wealth above \$100 million, corresponding to about

<sup>&</sup>lt;sup>15</sup> This computation is simplified and conservative because it disregards heterogeneity in effective tax rates among billionaires. Some billionaires can have an effective tax rate that exceeds 2% of their wealth today (e.g., when realizing large amounts of capital gains). Because the minimum tax would be computed taxpayer by taxpayer (and not for billionaires as a group), revenues would be higher than implied by a computation that only considers average rates for billionaires as a group.

0.001% of all adult individuals globally. <sup>16</sup> They owned about \$28.1 trillion in wealth. After adjusting these numbers to 2024 based on the evolution of billionaire wealth observed between 2021 and 2024, this estimate implies that centimillionaires other than billionaires owned about \$16.9 trillion in wealth in 2024. Existing studies suggest that the effective tax rate of centimillionaires is higher than for billionaires. Based on this evidence, I assume an effective tax rate of 1.2% for people with wealth between \$100 million and \$1 billion. <sup>17</sup>

Under these assumptions, extending the 2% minimum tax to centimillionaires would generate an additional amount of tax revenue of \$108 billion in the low-end scenario (20% evasion) and \$135 billion in the high-end scenario (no evasion) in 2024. These numbers are more uncertain that the estimates for billionaires (due to the more limited data on wealth for centimillionaires) and must be seen are as tentative and subject to revisions.

#### Revenue potential with different minimum tax rates

So far, we have considered a minimum tax rate of 2%. This rate, as detailed in Section 2.4, would implement a standard of "non-regressivity" at the top of the wealth distribution, ensuring that billionaires do not have lower effective tax rates (all taxes included) than socio-economic groups further down. This is a well-defined norm that could be receive widespread support. In the public debate, few people if any indeed seem to advocate explicitly for the wealthiest individuals to have lower tax rates than others. It is worth, however, considering different minimum rates and their effects on revenues.

Table 1 summarizes the revenue potential of a coordinated minimum tax with rates of 1%, 2%, or 3%. I consider a tax on billionaires as well as the effect of extending the tax to centimillionaires. In all cases, a range of revenues based on the assumptions about tax avoidance/evasion made above are provided: the low-end scenario corresponds to 20% evasion/avoidance and the high-end scenario corresponds to perfect enforcement.

The main conclusion is that the tax rate has a large and non-linear effect. With a 1% minimum rate, centi-millionaires other than billionaires would pay no additional tax (since their current tax rate is above 1% and heterogeneity in effective tax rate is disregarded), while billionaires would pay \$80-\$100 billion. With a 3% rate, revenues are large: if applied to all centi-millionaires the tax would raise \$550 billion to \$690 billion, with 45% of the revenues coming from centimillionaires and 55% coming from billionaires.

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<sup>&</sup>lt;sup>16</sup> See the simulator available at <a href="https://wid.world/world-wealth-tax-simulator/">https://wid.world/world-wealth-tax-simulator/</a>, which could be used to simulate other scenarios.

<sup>&</sup>lt;sup>17</sup> This rate of 1.2% is obtained as follows. I first estimate the effective income tax rate of centi-millionaires as a fraction of their pre-tax income by taking the average effective income tax rate of the P99.99-P99.999 and P99.999-P99.999 groups in Europe and in the United States (where Europe is the arithmetic average of France and the Netherlands) using the data reported in Figure 2. I then express this rate as a fraction of wealth by assuming that for centimillionaires, pre-tax income equals 11% of wealth (a higher ratio than for billionaires, since for centimillionaires pre-tax income includes some income).

Table 1: Revenue projections under different scenarios (in billion US\$, 2024)

	1% rate	2% rate	3% rate
>\$1 billion	80 - 100	193 - 242	307 - 384
\$100m – \$1 billion	0	108 - 135	244 - 305
>\$100 million	80 – 100	302 – 377	551 – 688

Notes: This table reports revenue estimates from a coordinated minimum tax on ultra-high-net-worth individuals, for different minimum tax rates. In 2024, a minimum tax on global billionaires equal to 2% of their wealth would have generated \$242 billion in tax revenue assuming perfect enforcement, and \$193 billion assuming 20% tax avoidance and evasion. See text for description of the methodology.

The revenue estimates presented in Table 1 are for the first year of the tax. In the short term, behavioral responses other than avoidance/evasion can be neglected, because wealth is a stock variable, and wealthy individuals cannot consume their wealth instantaneously. 18 Estimating long-run revenues requires a model of capital accumulation at the top of the wealth distribution. Saez and Zucman (2019a) present a model of long-run billionaire taxation with a wealth tax at rate of  $\tau$  on the total wealth of billionaires. They show that under simple assumptions, the elasticity  $e_T$  of the billionaire tax base with respect to the net-of-tax base after T years of taxation is the average number of years billionaire fortunes have been exposed to the tax (weighting each billionaire by wealth) during these T years. The elasticity depends on the wealth mobility process at the top of the wealth distribution. If wealth ranks are frozen then the elasticity is relatively large. If, by contrast, new fortunes emerge and others shrink, the elasticity is relatively low.

Long-run revenue projections would also require making assumptions about the pre-tax return of billionaires. Over the last four decades their returns has been 7.5% per year on average (net of inflation) and their effective tax rate equivalent to 0.3% of wealth. If pre-tax returns remain the same, a well-enforced minimum tax of 2% would reduce the net-of-tax return of billionaires from 7.2% to 5.5%. As we have seen in Section 1, the average net-of-tax real return globally has been 5%-6% since the 1980s. A 2% effective tax on billionaire would make billionaires' returns more comparable to the average return, potentially leading to a stationary wealth process. In any case, for all scenarios considered in this blueprint, the net-of-tax return of billionaires would remain high: in a range of 4.5% (with a well enforced 3% minimum tax) to 6.7% (with a poorly enforced 1% minimum tax).

<sup>18</sup> A potential short-term behavioral response would be charitable giving, i.e., billionaires immediately giving away a fraction of their wealth to avoid the minimum tax. Due to the lack of empirically grounded estimates, I do not attempt to model this potential margin of response.

#### 2.4. A tool to safeguard tax progressivity

Beyond its effect on government revenue, the main effect of a minimum tax on ultra-high-net-worth individuals would be to safeguard tax progressivity at the very top of the distribution.

With 2% minimum tax on billionaires

Current situation (high-income countries average)

Posso Po

Figure 5: Average tax rates by income group, with billionaire minimum tax (% of pre-tax income)

Notes: This figure reports estimates of current effective tax rates by pre-tax income groups and for U.S. dollar billionaires in high-income-countries, and in the scenario of a 2% minimum tax on billionaire. These estimates include all taxes paid at all levels of government and are expressed as a percent of pre-tax income. P0-50 denotes the 50% of adults at the bottom of the pre-tax income distribution, P50-90 the next four deciles, etc. Pre-tax income includes all national income (measured following standard national account definitions) before taxes and transfers and after the operation of the pension system. Sources and methodology: see Appendix B.

Figure 5 illustrates this effect by showing how effective tax rates would change if a coordinated minimum tax ensuring payments equal to at least 2% of wealth was enforced. Due to data limitations, I focus on high-income countries; Appendix B provides complete methodological details. As the Figure shows, a 2% minimum tax on billionaire would erase the decline in effective tax rates currently observed at that level of the distribution. It would increase their effective tax rate, all taxes included, from about 22% of pre-tax income to about 39%. The effective rate of billionaires would become similar to the rate observed in the bottom 99%. In other words, if the standard implemented in this report was implemented, the effective tax rate

of billionaires would be no lower than that of ordinary taxpayers—but it would also be no higher. This can be seen as a *de minimis* requirement and justifies the focus on the 2% rate—the rate that makes tax systems non-regressive for billionaires. Centimillionaires other than billionaires would still enjoy relatively low tax rates of less than 30% of income, however.

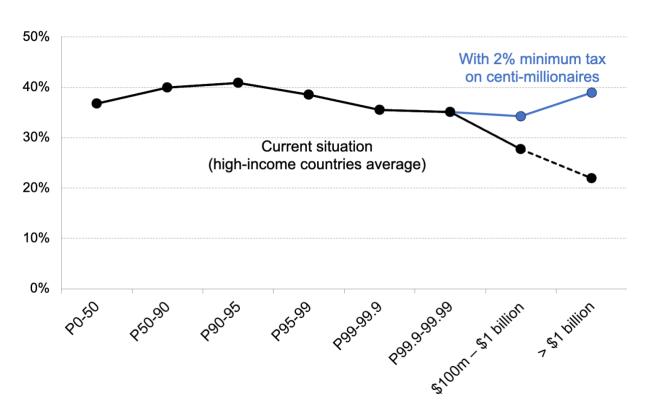


Figure 6: Average tax rates by income group, with centimillionaire minimum tax (% of pre-tax income)

Notes: This figure reports estimates of current effective tax rates by pre-tax income groups and for U.S. dollar billionaires in high-income-countries, and in the scenario of a 2% minimum tax on centimillionaires. These estimates include all taxes paid at all levels of government and are expressed as a percent of pre-tax income. P0-50 denotes the 50% of adults at the bottom of the pre-tax income distribution, P50-90 the next four deciles, etc. Pre-tax income includes all national income (measured following standard national account definitions) before taxes and transfers and after the operation of the pension system. Sources and methodology: see Appendix B.

Figure 6 shows that this issue could largely be addressed if the minimum tax was extended to centimillionaires. For people with wealth between \$100 million and \$1 billion, a 2% minimum tax would increase effective tax rates (all taxes included) from less than 28% to 34%, erasing a large fraction of the fall in progressivity observed today. Three limits must be noted, however. First, these results are illustrative of high-income countries on average. There is substantial heterogeneity across countries. The baseline proposal formulated in this report does not guarantee that tax progressivity would be safeguarded in each country. Second, even focusing on average patterns, some regressivity would remain at the top, with taxpayers between the 99<sup>th</sup>

percentile and the \$100 million threshold having lower tax rate (around 35%) than the middle class (around 40%). Additional measures would be required to address this issue. Third, the proposal would not make the tax system progressive. Achieving that goal requires considering higher minimum tax rates.

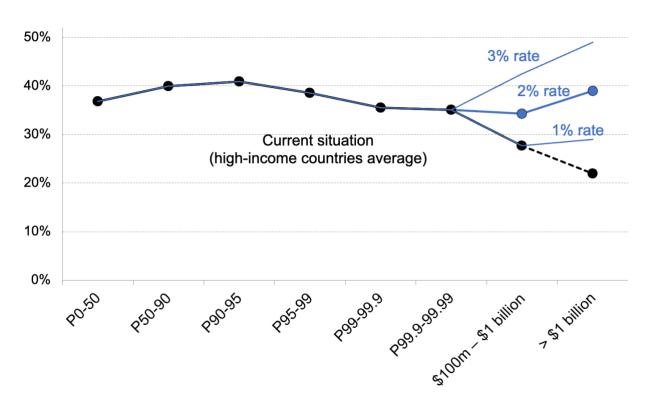


Figure 7: Average tax rates by income group, with different minimum tax rates (% of pre-tax income)

Notes: This figure reports estimates of current effective tax rates by pre-tax income groups and for U.S. dollar billionaires in high-income-countries, and for different scenarios on minimum taxation. These estimates include all taxes paid at all levels of government and are expressed as a percent of pre-tax income. P0-50 denotes the 50% of adults at the bottom of the pre-tax income distribution, P50-90 the next four deciles, etc. Pre-tax income includes all national income (measured following standard national account definitions) before taxes and transfers and after the operation of the pension system. Sources and methodology: see Appendix B.

Figure 7 shows how varying the minimum tax rate would affect the profile of tax progressivity. A 1% minimum tax would be insufficient to significantly affect centimillionaires other than billionaires. It would increase a bit the effective tax rate of billionaires, but significant regressivity would remain. With a 3% minimum rate, by contrast, the tax system would become progressive above the 99.99<sup>th</sup> percentile.

# 3. The value added of international cooperation

Although there is a lot that can be done unilaterally by countries to improve the taxation of ultra-high-net-worth individuals, international coordination on this issue adds value for two main reasons: it would help prevent a race to the bottom, and it would support the effectiveness of domestic policies.

#### 3.1. Avoiding a race-to-the-bottom

A common challenge with increasing the taxation of ultra-high-net-worth individuals is the international mobility of the taxpayers involved. Most countries tax resident individuals on their worldwide income (and worldwide wealth when there is a wealth tax). To avoid taxes, taxpayers can change their country of residency and move to a low-tax country, or to countries that are high-tax overall but offer favorable regimes for high-net-worth foreigners (see Alstadsæter et al., 2023, chapter 3, for a discussion of this form of international tax competition). The risk of such tax-driven migration has been a major argument in favor of reforms reducing the taxation of high-net-worth individuals in recent decades.

To be sure, the risk of tax-driven migration can be exaggerated in the public debate. Recent research shows that migration responses to taxes by high-net-worth individuals are not zero, but not large either. Studying various wealth tax reforms in Sweden and Norway, Jakobsen et al. (2024) summarize their findings as follows in their abstract: "We find significant effects on out-migration flows from increases in the effective wealth tax. But, we also document that the overall level of these migration flows is remarkably small, with annual net-migration rates below 0.01%. As a result, we find that the aggregate economic effects of tax-induced migration are modest in Scandinavia." Studying a reform increasing taxes on globally connected superrich individuals in the United Kingdom (the "non-doms"), Advani et al. (2023) similarly conclude that "emigration responses were modest." In high-income countries like Scandinavian countries and the United Kingdom, other features of the economy can keep making these countries attractive to wealthy individuals even with higher tax rates.

These studies do not speak directly to the migration responses of billionaires, however. To better apprehend them, one can use data from *Forbes*, which records both the nationality and the country of residency of identified global billionaires. Using these data, Figure 8 shows the fraction of global billionaires who live in a country different from their country of citizenship. This fraction has increased from about 5%-6% in the mid-2000s to about 9% in 2024. More than 90% of world billionaires live in their country of citizenship. A rising trend in the fraction living abroad, however, is visible—and a significant share of the billionaires living in a country different than their citizenship country live in relatively low-tax countries, such as Switzerland, Monaco, and the United Arab Emirates. Moreover, as we have seen, billionaires on average have low tax rates today. The question of how they would respond to an increase in their taxes (e.g., from the current level of about 0.3% of wealth to a rate of say 2%) is legitimate.

A common standard would limit the risk of tax-driven mobility. If all countries implemented a minimum tax on ultra-high-net-worth individuals, effective tax rate differentials would be small. Importantly, as detailed in Section 4.4., there is no need for the participation of all countries for the standard to be effective: effective implementation of the standard by a critical mass of countries would be enough to curb a race to the bottom.

10% 9% 8% 7% 6% 5% 4% 3% 2% 1% 0% 2000 2005 2010 2015 2020 2025

Figure 8: Share of global billionaires living in country different from their country of citizenship

<u>Notes</u>: This figure shows the fraction of global billionaires (as identified by *Forbes* magazines) who live in a country different than their country of citizenship. Sources: *Forbes*.

#### 3.2. The complementarity between national and international action

Countries have a variety of tools at their disposal to effectively tax ultra-high-net-worth individuals while limiting tax-driven mobility. These tools include exit taxes, certain forms of taxation for non-resident individuals, or tying taxation not to residency but to citizenship (as done in the United States).

International cooperation adds value because it provides an additional protection against tax competition. This additional protection is particularly valuable for relatively small countries

and for lower-income countries. These countries are relatively more exposed to international mobility, and likely more constrained in their ability to tackle it through unilateral action, e.g., because they may have more limited tax enforcement possibilities on non-residents. Even in large economies with the strongest anti-avoidance measures, enforcing taxes on non-residents can face limitations. Taxpayers may renounce citizenships; they may try to elect residency in low-tax countries even before becoming wealthy but in anticipation of future gains; in some context there may also be legal limits to the taxation of non-residents or to the use of exit taxes.

International coordination is also valuable because it would support the implementation of domestic tax policy measures. A common minimum standard for the taxation of ultra-high-networth individuals would reduce incentives for the taxpayers affected to engage in tax avoidance, making domestic reforms (such as an increased taxation of capital gains) more effective. It would also create transparency about top-end wealth (as detailed in Section 4.2), facilitating the enforcement of domestic taxes on capital income and wealth taxes when they exist.

There is a parallel with the coordinated minimum tax on multinational companies ("Pillar Two" of the OECD Two-Pillar Solution to Address the Tax Challenges Arising from the Digitalisation of the Economy). Just like tax avoidance by ultra-high-net-worth individuals, profit shifting by multinational firms can be tackled through a variety of domestic measures, especially in large economies. For example, a country may choose to tax resident corporations on their worldwide profits (including their profits booked abroad) and combine this worldwide taxation with strong anti-inversion rules to prevent firms from changing their headquarter country. There are many other anti-profit-shifting measures that can be implemented domestically, which have merit independent of any international action. Yet international coordination adds value because it provides additional protection against the weaknesses that even the most sophisticated domestic systems can have. 20

An effective action plan against tax avoidance (whether it is by multinational companies or ultra-high-net-worth individuals) combines domestic and internationally coordinated measures, which complement and reinforce each other. Like with Pillar Two, international cooperation on a standard of effective taxation for ultra-high-net-worth individuals would reinforce the ability of government to implement their own domestic legislation.

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<sup>&</sup>lt;sup>19</sup> This largely characterizes the way the U.S. corporate tax used to work before 2018 (with the exception that foreign profits were taxable in the United States only upon repatriation).

<sup>&</sup>lt;sup>20</sup> Even in a worldwide corporate tax system with strong anti-inversion rules, for instance, there are still incentives for new companies to incorporate in offshore financial centers, i.e., to "be born" in a tax haven.

# 4. Implementation challenges

#### 4.1. Wealth valuation

The standard proposed in this blueprint uses wealth as a reference to compute the minimum amount of tax owed by ultra-high-net-worth individuals. Using wealth is desirable because narrow notions of income do not capture the actual economic income of ultra-high-net-worth individuals and their ability to pay taxes. The different possible implementations of the standard—a presumptive income tax, a tax on a broad notion of income including unrealized capital gains, or a wealth tax—each require measuring wealth, both because the standard is expressed as a fraction of wealth, and because these various instruments all require measuring wealth or wealth changes. Building on existing methods, it should be possible to obtain reliable estimates of the wealth of ultra-high-net-worth individuals.

Most countries already have methods in place to value top-end wealth, because they have inheritance (or estate) taxes. These methods constitute a natural starting point for national implementations of the proposed standard. They could be strengthened and harmonized, just as the international agreement on the minimum tax for multinationals created a common, harmonized definition of profits.

In practice, the main challenge in estimating the wealth of ultra-high-net-worth individuals involves the valuation of private businesses (i.e., businesses that are not listed on a stock exchange). According to existing data, about half of the wealth of global billionaires is in shares of publicly listed companies, which are straightforward to value. The other half consists mostly of shares in private companies.

The private businesses owned by billionaires are typically large, making it possible to ascertain their value by comparing these businesses to similar publicly listed companies. To value private businesses, tax authorities could apply the valuation multiples observed for similar listed businesses in the same industry: multiple of market value to profits, market value to assets, and market value to sales. Tax authorities could also rely on transactions in private business shares, which de facto value private companies and could be made reportable to tax authorities.

Other forms of wealth (such as art) account for a small fraction of wealth for billionaires. Valuation methods also exist for these other forms of wealth. For instance, valuable artwork is typically insured. Insurance values could be made reportable to tax authorities.

One potential concern with a tax on billionaires using wealth as a reference is that it might create incentives for the targeted taxpayers to shift their wealth into harder-to-value asset classes. For instance, firm owners might be less willing to list their companies on the stock market. A potential solution to that concern would be to value *listed* companies like private firms, i.e., by using multiples of market value to profits, market value to assets, and market value to sales of similar listed firms in the same industry. This would harmonize the treatment

of listed and non-listed companies, in effect smoothing out firm-specific variation in the stock price of listed companies.

#### 4.2. Overcoming financial opacity

A successful enforcement of the proposed standard faces two main practical challenges: (i) how to minimize wealth concealment; (ii) how to identify beneficial ownership of assets and ensure that information is available to the relevant tax authorities.

#### Addressing the risk of wealth concealment

An obstacle to taxing ultra-high-net-worth individuals historically has been financial opacity in offshore financial centers. Until 2017 most offshore financial institutions did not communicate information to foreign tax authorities, except on an ad-hoc basis when information was requested for taxpayers who had aroused suspicion. This bank secrecy made it relatively easy for wealthy individuals to evade taxes on offshore income and wealth.

Over the last 15 years, bank secrecy has been curtailed through increased information exchange between countries. The United States started the process by enacting the Foreign Account Tax Compliance Act (FATCA) in 2010 which was implemented in 2014. A similar system—the Common Reporting Standard, or CRS—was then implemented among more than 100 countries and territories starting in 2017. FATCA requires that all banks worldwide report on the account holdings of US citizens under the threat of penalties. Under the CRS, financial institutions must report to their respective tax administrations on all accounts held by foreigners; this information is then shared with tax administrations in the account holders' home countries.

Evidence is emerging that both FATCA and the CRS have contributed to reducing offshore tax evasion. Summarizing this preliminary evidence, the Global Tax Evasion Report 2024 tentatively estimates that offshore tax evasion has declined by a factor of about three in less than 10 years. Before 2013, households owned the equivalent of 10% of world GDP in financial wealth in tax havens globally, the bulk of which was undeclared to tax authorities and belonged to high-net-worth individuals. Today there is still the equivalent of 10% of world GDP in offshore household financial wealth, but according to the Global Tax Evasion Report 2024 only about 25% of it evades taxation. This evolution shows that international cooperation and the creation of common standard can be powerful tools to support domestic taxation.

Despite this progress, limits in information sharing remain. First, it remains possible to own financial assets that escape being reported on, whether it is due to non-compliance by offshore financial institutions or to limitations in the design of the automatic exchange of bank information (see, e.g., Boas et al., 2024). Second, not all assets are covered by this system, most importantly real estate, other non-financial assets (such as art), and shares in private companies. Research highlights how some individuals who used to conceal financial assets in offshore banks may have exploited these loopholes by shifting holdings to real estate (Bomare and Le Guern Herry, 2024; Alstadsæter et al., 2022).

Improving the effective taxation of ultra-high-net-worth individuals requires improving international information exchange. The Common Reporting Standard should be extended to include real estate and other non-financial assets. This would work best if combined with improved reporting on the ownership of shell companies, which are often used as nominal owners for luxury real estate. There is growing support at the G20 level and beyond for including real estate in the automatic exchange of bank information; see OECD (2023). Other assets such as cryptocurrency also need to be incorporated into the CRS. The increase in market valuation for cryptocurrencies has raised questions over risks of tax evasion, prompting the OECD to develop a reporting standard called CARF (Crypto-Asset Reporting Framework).

#### **Identifying beneficial owners**

Another challenge with successfully enforcing a minimum tax on billionaires involves identifying beneficial ownership of assets. There has been progress in this area in recent years thanks to the creation of beneficial ownership registries, but gaps remain. Building on existing policies, two potential improvements can be considered.

A first step would involve adding beneficial ownership requirements to the country-by-country reports of multinational companies. Since 2016-2017, large multinational companies have been required to compile country-by-country reports detailing their profit, revenue, assets, etc., in the different countries where they operate. These reports are filed confidentially with the tax authority of the multinational's parent company and then exchanged internationally between tax authorities. In addition to the variables currently reported, multinational firms could be required to list their main beneficial owners, such as shareholders who beneficially own more than 1% of their stock, either directly or indirectly through holdings and other intermediate structures. Because the bulk of the wealth of billionaires derives from their ownership stakes in multinational companies, such a reporting would allow tax authorities to capture a large fraction of the wealth of global billionaires.

Identifying the main beneficial owners of multinational companies should be possible even when the shares are held through intermediaries (such as family holding companies, investment funds, trusts, etc.), because financial intermediaries themselves are required to identify beneficial owners by virtue of existing anti-money-laundering regulations. Lowering the revenue threshold for mandatory compilation of country-by-country reports (currently set at €750 million) would allow to capture an even greater share of the wealth of ultra-high-networth individuals. Because country-by-country reports are already exchanged internationally, this modest enhancement of existing information reporting systems could play a critical role in allowing tax authorities to enforce the common standard not only on domestic, but also if needed on non-resident ultra-high-net-worth individuals, as described in Section 4.3 below.

A second step would involve creating new self-reporting requirements for ultra-high-net-worth individuals, modelled on the country-by-country reports of multinational firms. Resident billionaires would be asked to file confidentially a report on their wealth, detailing the assets they own in the different countries of the world. These reports could be filed with the tax authority of the billionaires' residence country. They could then be exchanged internationally

among the countries implementing the common standard. To enhance compliance, advisors who manage a substantial amount of family assets could be asked to provide timely and comprehensive information to their clients as to which participations they hold, directly or indirectly, with penalties for non-compliance.

The quality of the self-reported information provided in these reports would be cross-checked against data information available within tax authorities, coming from (i) domestic sources: business registries, securities and exchange commissions, domestic financial institutions, land and real estate registries, tax returns, etc.; (ii) information on cross-border bank accounts shared through the Common Reporting Standard; (iii) the beneficial ownership information added to the country-by-country reports of multinational companies; (iv) other sources, such as journalistic estimates, court records, and beneficial ownership registries of foreign countries.

### 4.3. Dealing with imperfect coordination

Ideally, all countries would implement the proposed standard. Political and geopolitical factors, however, could make it difficult to obtain truly global participation. How to ensure an effective taxation of ultra-high-net-worth individuals if some jurisdictions decline to implement this standard? Two main policies could be implemented: first, measures to strengthen mechanisms to limit tax-driven international mobility; second, mechanisms to incentivize broad participation in the agreement, modeled on the incentives included in the Pillar Two minimum tax on multinational firms.

#### Strengthening mechanisms to limit tax-driven mobility

Many countries have rules in place to limit tax-driven changes in residency of high-net-worth individuals, including exit taxes. Countries implementing the minimum tax standard could build on these rules and strengthen them.

First, some countries (most prominently the United States) tax citizens no matter where they live, no matter how rich they are, and no matter how long they have been residing in that country. This contrasts with the general approach followed by most other countries, in which taxation is determined by residency. Taxpayers stop being liable for taxes when they move abroad, no matter how long they have lived in their origin country, and no matter how wealthy they have become in that country.

Countries implementing the common standard could consider the following middle ground approach. They could keep taxing ultra-high-net-worth individuals after a change of residency for a number of years (which itself could depend on how long these individuals have been a resident in their origin country). This tax obligation would only apply to wealthy individuals who have been long-term residents; nationality, in this system, would be irrelevant. Moreover, any tax paid in the new country would be credited against the amount of tax owed in the origin country, thus preventing any double taxation. This system can be justified by the fact that wealthy individuals who have lived for a long time in a country and have become rich in that country owe at least part of their success to the education they received in that country, the

infrastructure and public goods that allowed their businesses to thrive, the health care system, the legal and judicial system, etc.

To illustrate how this system would operate, consider an ultra-high-net-worth individual who has spent 40 years of his or her adult life in country A (implementing the common standard) and decides to move to country B (not implementing the common standard). Country A would keep taxing that person as if she was still a resident of A, with tax credits to offset any taxes paid in B. This obligation could gradually decline over time. For example, the person would remain liable for a fraction 40/41 of her normal tax liability in A (i.e., the amount she would have paid in A if she was still a resident of A) in the first year after the change of residency, for a fraction 40/42 in the second year, etc. A would also ensure that each year, the individual involved does not fall below the common minimum tax standard.

Formally, consider an ultra-high-net-worth individual who moves abroad after having lived t years in country A. Denote by  $X_{t+n}$  the tax owed n years after the move to country A if there had been no change of residency. Then the maximum of  $[t/(t+n)]X_n$  and the common minimum tax (2% of wealth owned in t+n) would be collected by country A in t+n.

This mechanism would reduce incentives for wealthy people to move abroad for tax reasons. By construction, it would not affect people who move to relatively high-tax countries. An advantage of this system is that it addresses all forms of international tax competition, whether it is standard tax competition on tax rates, or preferential tax regimes. Moreover, this system is also immune to the risk of citizenship renunciation that weakens the US system of taxation based on citizenship, since it is not based on nationality.

As one variation over that system, origin countries could enforce the common minimum tax standard only, as opposed to the full origin country income (and wealth) tax. Someone who has spent 40 years in country A would, each year, remain liable for the common minimum tax after relocating to a non-participating country. In that system, participating countries would in effect play the role of tax collector of last resort: they would simply collect the minimum tax that non-participating countries would decline to collect.

To enforce this system, the starting point would be the existing international automatic exchange of bank information, the Common Reporting Standard. This Common Reporting Standard would need to be extended to include information on the wealth and income of former residents liable for taxes in their origin country. In contrast to the US system of citizenship-based taxation, the proposed mechanism would affect only a tiny fraction of taxpayers (ultra-high-net-worth individuals who have been long-term residents in a country and move to a non-participating country), and for that reason would have limited implementation costs.

This system would complement and extend current exit taxes. The goal of current exit taxes is to ensure that wealthy people pay taxes on their past income (including unrealized gains) when changing their residency. The system described here would ensure that in addition, they would pay a minimum amount of tax on income newly earned after changing their residency, if their new country declines to tax them.

#### Providing incentives to join the agreement

A key feature of the "Pillar Two" minimum tax on multinational companies is that it contains incentives for countries to join the agreement. Specifically, according to the "undertaxed payment rules" (UTPR), countries implementing the agreement are allowed to tax the undertaxed profits of multinationals of non-participating countries. This backstop provides incentives for all countries to join, since not joining means relinquishing tax revenues to other countries. To encourage the largest number of countries to join the common standard proposed in this blueprint, this approach could be applied to the taxation of ultra-high-net-worth individuals.

At the outset it is worth stressing that the way the UTPR could be translated to billionaires would require a thorough and inclusive international discussion. The goal of the paragraphs that follow is not to provide a detailed analysis of these different options, but rather to illustrate the realm of possibilities, building on current frameworks and practices. Each scenario would deserve a comprehensive legal analysis that falls outside the scope of this report.

First, participating countries could tax the undertaxed billionaires of non-participating countries based on the assets owned by these individuals in participating countries. The assets considered would include real estate, shares in companies, bank accounts, and all the other financial and non-financial assets used for the computation of the common minimum tax standard. In addition to assets, time spent in participating countries could also be considered. In double-tax treaties, there are already rules in place to define where taxpayers have a center of economic interest (typically based on time spent and sometimes assets such as main homes) and are as such liable for taxation. These rules could represent a starting point for an extended definition of center of economic interest.

Most countries already tax some of the wealth of non-resident individuals through their property taxes, since property taxes are levied on both resident and non-resident individuals alike. This practice could be extended to other forms of wealth beyond tangible properties. For a given country A, it is logical to ask foreign ultra-high-net-worth individuals to pay some tax in A to the extent that (i) they own some property in A (or spend some time in A) and (ii) their effective tax rate falls below the minimum that applies to domestic ultra-high-net-worth individuals.

Since the ultra-high-net-worth individuals affected would own assets in the countries implementing the common minimum tax standard, this tax would be enforceable. The larger the number of countries participating in the standard, the higher would be the fraction of their wealth (or time spent) in these countries.

Second, ultra-high-net-worth individuals of non-participating countries could be taxed based not only on the assets they personally own in participating countries, but also based on the assets they indirectly own through corporations. As we have seen, most of the wealth of global billionaires derive from their ownership stakes in multinational firms. Consider an ultra-high-bet-worth individual who owns a large stake in a multinational, which in turn owns assets in

participating countries. Each of these countries could collect a share of the minimum tax owed by the individual (if that tax is not collected by the billionaire's residence country), based on the share of the company's global assets located on their territory. To enforce these rules, participating countries would rely on the country-by-country reports of multinational firms enhanced with information on beneficial owners described above. If the individual taxpayer affected refused to pay the tax owed, an extra corporate tax could be levied on the company.

Third, and generalizing this approach, participating countries could rely on the nexus criteria and formulas used in Pillar Two. If a firm has nexus (as per Pillar Two rules) in a country, then so too would the billionaire owners of this firm. The allocation of taxing rights on undertaxed billionaires among the jurisdictions with nexus could then follow the UTPR formula of Pillar Two. Concretely in this scenario, instead of using only assets as in the second scenario, the country-by-country assets, employment (and possibly other metrics such as revenue) of billionaire-owned multinationals would be used by participating countries to determine what fraction of the unpaid minimum tax they would collect. The presence of local establishments of these multinationals could be leveraged by participating countries for enforcement purposes, e.g., by creating a liability for these establishments if the tax cannot be collected from the ultrahigh-net-worth individual.

To be sure, the translation of the under-tax-payment rules to the minimum taxation of billionaires raises complex issues that would deserve a detailed legal analysis. This translation may require renegotiating double tax treaties. It would necessitate international coordination and extensive, inclusive discussions.

# 5. Other options for a more effective taxation at the top

Ultimately, it is for each person, as citizen and voter, to weigh the potential benefits and costs of the common standard proposed in this blueprint. Are the gains in tax revenues worth the potential costs? Are there better options?

To inform this assessment, it is useful to consider alternative approaches to improving tax progressivity: tackling the forms of tax avoidance that allow ultra-high-net-worth individuals to have low tax rates; regulating harmful tax practices (such as special tax regimes that provide reduced tax rates for wealthy individuals); increasing the progressivity of existing individual income taxes; improving the taxation of estates and inheritance. Methodological details for each scenario are detailed in Appendix B.

### 5.1. Tackling avoidance and regulating harmful tax practices

As we have seen in Section 1, a method used by ultra-high-net-worth individuals to avoid the individual income tax is the use of holding companies. Some countries, notably the United States, have successfully implemented anti-abuse provisions to prevent this tax avoidance.

These anti-abuse rules could be implemented by other countries. The main idea would be to penalize the use of personal wealth-holding companies, e.g., by imposing an additional tax on the retained earnings of such holdings, or by treating them as transparent for tax purposes (i.e., by adding their income automatically to the income of their owners).

While this would be a highly valuable step (and one that does not require much if any international coordination), such a reform would not be sufficient to make the taxation of ultrahigh-net-worth individuals truly effective, because it would remain possible to retain earning in downstream businesses. As we have seen, even in the United States that has strong anti-abuse rules, billionaires have low effective tax rates.

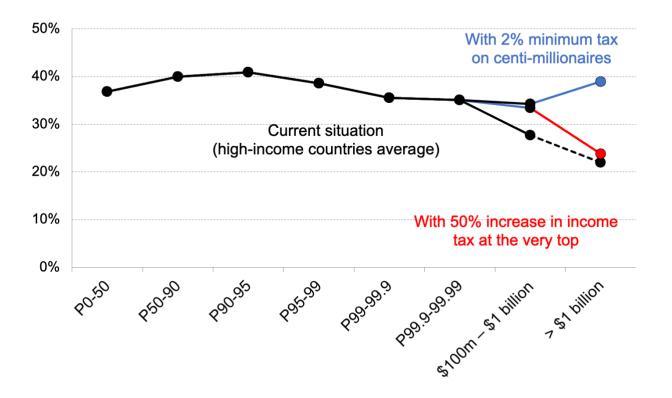
More broadly, there is a variety of legal structures and techniques used by ultra-high-net-worth individuals to reduce their taxable income, making it difficult to provide a comprehensive solution by targeting specific tax regimes. The risk associated with closing one aggressive tax regime is that ultra-high-net-worth individuals may be able to adopt other regimes offering broadly similar benefits. This is why the most effective approach involves a minimum standard expressed as a fraction of a base hard to manipulate. At the top of the wealth distribution, this base is wealth itself.

#### 5.2. A more progressive income tax

Another option to improve the effectiveness of the taxation of ultra-high-net-worth individuals involves increasing the progressivity of the individual income tax. Figure 9 considers how such a reform would affect tax progressivity in high-income countries. Specifically, I consider the effect of a 50% increase in the effective income tax rate of centi-millionaires. This increase could be implemented either through an increase in statutory top marginal income tax rates, or through improved enforcement.

As the figure shows, such a reform would make a significant difference for centi-millionaires other than billionaires. For that group, it would be broadly equivalent to implementing the 2% minimum standard presented in this blueprint. However, this reform would make little difference for billionaires. This is because billionaires have little taxable income, and as a result pay little income tax, so that increasing their income tax by 50% would make little difference to their tax liability.

Figure 9: Average tax rates by income group, with 50% increase in income tax at the top (% of pre-tax income)

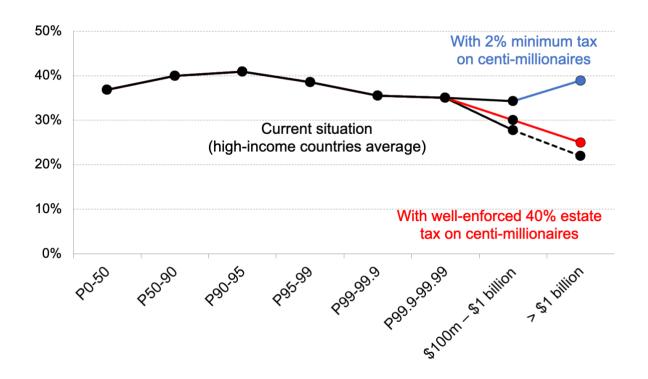


Notes: This figure reports estimates of current effective tax rates by pre-tax income groups and for U.S. dollar billionaires in high-income-countries, and for different scenarios on minimum taxation. These estimates include all taxes paid at all levels of government and are expressed as a percent of pre-tax income. P0-50 denotes the 50% of adults at the bottom of the pre-tax income distribution, P50-90 the next four deciles, etc. Pre-tax income includes all national income (measured following standard national account definitions) before taxes and transfers and after the operation of the pension system. Sources and methodology: see Appendix B.

### 5.3. A more progressive inheritance tax

Last, Figure 10 considers the effect of a more effective taxation of intergenerational wealth transmissions. Specifically, I consider the effect of implementing a well-enforced 40% estate tax on the wealth of centi-millionaires (i.e., a 40% wealth tax on wealth at death for people with more than \$100 million in net wealth). Existing estate and inheritance taxes have multiples loopholes which in effect shield a significant fraction of the largest estates from taxation. In the scenario considered in Figure 10, by contrast, the estate tax would be well enforced, with all assets value at their market value and no deductions or exemptions.

Figure 10: Average tax rates by income group, with 40% estate tax on centimillionaires (% of pre-tax income)



Notes: This figure reports estimates of current effective tax rates by pre-tax income groups and for U.S. dollar billionaires in high-income-countries, and for different scenarios on minimum taxation. These estimates include all taxes paid at all levels of government and are expressed as a percent of pre-tax income. P0-50 denotes the 50% of adults at the bottom of the pre-tax income distribution, P50-90 the next four deciles, etc. Pre-tax income includes all national income (measured following standard national account definitions) before taxes and transfers and after the operation of the pension system. Sources and methodology: see Appendix B.

As the Figure shows, however, even a well enforced estate tax of 40% would make little difference to the effective tax rates of ultra-high-net-worth individuals. This is because the estate tax is levied only once—at the time of death—and thus generates significantly less revenue than annual taxes, given observed mortality rates for ultra-high-net-worth individuals.

# **Conclusion: Towards a more sustainable globalization**

Like with any change in taxation, the proposal made here would have costs and benefits. On the benefits side, a minimum tax on ultra-high-net-worth individuals would raise significant amounts of government revenue. These resources could be invested to support sustained economic development through investments in education, health, public infrastructure, the energy transition, and climate change mitigation—increasing long-run economic prosperity. Beyond the revenue gains for governments, the common standard detailed here would fix a key

failure of contemporary tax systems, which allow the wealthiest individuals to have relatively low effective tax rates. There would be benefits in terms of increased social trust and cohesion.

There is a lot that countries can do unilaterally to improve the effectiveness of their system of taxation at the top of the wealth distribution. Coordinated action adds value, however, because it would reduce the risk of a race to the bottom and support domestic progressive tax measures. Like for Pillar Two, global cooperation would help address the unequal effects of globalization, from which billionaires have benefited disproportionately as their businesses reaped the rewards of ever more integrated global markets. Like Pillar Two, the common standard proposed in this blueprint could be implemented through domestic measures rather than a multilateral treaty: it could be construed as a voluntary regime with built-in incentives to join (Kysar, 2024).

This blueprint did not discuss how the revenues from such a global standard should be spent. Government spending, like taxation, must be decided through democratic deliberation and the vote. There is a variety of legitimate use of the revenues, including to cut taxes on highly taxed economic actors, fund domestic public goods and services, or contribute to global public goods. These issues will deserve a thorough and inclusive global discussion.

Thanks to recent progress in international tax cooperation, a common taxation standard for billionaires has become technically possible. Implementing it is a question of political will.

Some actions can be taken immediately by individual countries, such as strengthening rules to limit tax-driven mobility. Countries can also start to examine what would be the most appropriate way to translate the standard described here in their own domestic legislation. Other actions require international coordination. At the international level, work should start to improve cross-border information exchange—most importantly by enhancing the country-by-country reports of multinational firms with information on beneficial owners. Multilateral work should also start to draft rules, which could be modeled on the undertaxed payments rules included in Pillar Two, ensuring the standard proposed here would be effective even with less than full participation. The involvement of the G20 and other international forums and organizations will be essential.

### References

Advani, Arun, Helen Hughson, and Andy Summers (2023), "How much tax do the rich really pay? Evidence from the UK," *Oxford Review of Economic Policy*, 39(3): 406–437.

Advani, Arun, David Burgherr, and Andy Summers (2023), "Taxation and migration by the super-rich", working paper.

Alstadsæter, Annette, Bluebery Planterose, Gabriel Zucman, and Andreas Økland (2022), "Who Owns Offshore Real Estate? Evidence from Dubai", EU Tax Observatory working paper #1, May 2022.

Alstadsæter, Annette, Panayiotis Nicolaides, Sarah Godar, and Gabriel Zucman (eds) (2023), *The Global Tax Evasion Report 2024*, EU Tax Observatory report.

Atria, Jorge and Cristóbal Otero (eds) (2021), *Impuestos justos para el Chile que viene:* Diagnósticos y desafíos tributarios para un nuevo pacto fiscal, Fondo de Cultura Económica.

Bach, Laurent, Antoine Bozio, Arthur Gouillouzouic, and Clément Malgouyres (2024), "Do Billionaires Pay Taxes?," IPP working paper.

Bauluz, Luis, Filip Novokmet and Moritz Schularik (2022), "The Anatomy of the Global Saving Glut", CESifo Working Paper No. 9732.

Benhabib, Jess and Alberto Bisin (2018), "Skewed Wealth Distributions: Theory and Empirics", *Journal of Economic Literature*, 56(4): 1261–1291.

Bergolo Marcelo, Juliana Londoño-Vélez and Darío Tortarolo, "Tax progressivity and taxing the rich in developing countries: lessons from Latin America", *Oxford Review of Economic Policy*, 39: 530–549.

Blanchet, Thomas, Lucas Chancel, and Amory Gethin (2022), "Why is Europe more Equal than the United States?" *American Economic Journal: Applied Economics*, 14(4): 480–518.

Blanchet, Thomas, Lucas Chancel, Ignacio Flores, and Marc Morgan (eds) (2024), "Distributional National Accounts: Guidelines Methods and Concepts used in the World Inequality Database", WID.world working paper.

Boas, Hajlte F., Niels Johannesen, Klaus T. Kreiner, Lauge Larsen, and Gabriel Zucman (2024), "Taxing Capital in a Globalized World: the Effects of Automatic Information Exchange", working paper.

Bomare, Jeanne and Ségal Le Guern Herry (2024), "Avoiding Transparency through Offshore Real Estate: Evidence from the UK," Sciences Po working paper.

Bruil, Arjan, Céline van Essen, Wouter Leenders, Arjan Lejour, Jan Möhlmann, and Simon Rabaté (2024), "Inequality and Redistribution in the Netherlands", CPB Discussion Paper.

Chancel, Lucas, Thomas Piketty, Emmanuel Saez, and Gabriel Zucman (eds) (2022), *The World Inequality Report 2022*, Harvard University Press.

De Rosa, Mauricio, Ignacio Flores, and Marc Morgan (2022), "More Unequal or Not as Rich? Revisiting the Latin American Exception," CUNY Stone Center Working Paper Series.

Guzzardi, Demetrio, Elisa Palagi, Andrea Roventini, and Alessandro Santoro (2023), "Reconstructing Income Inequality in Italy: New Evidence and Tax Policy Implications from Distributional National Accounts," *Journal of the European Economic Association*, forthcoming.

Eisinger, Jesse, Ernsthausen, Jeff, Kiel, Paul (2021), "The Secret IRS Files: Trove of Neverbefore-seen Records Reveal how the Wealthiest Avoid Income Tax," *ProPublica*, 8 June.

Jakobsen, Katrine, Jonas Kolsrud, Camille Landais, Henrik Kleven, and Mathilde Muñoz (2024) "Taxing Top Wealth: Migration Responses and their Aggregate Economic Implications", NBER Working Paper #32153.

Kysar, Rebecca M. (2024), "The Global Tax Deal and the New International Economic Governance", *Tax Law Review*, forthcoming.

Landais, Camille, Emmanuel Saez, and Thomas Piketty (2011), *Pour une Révolution fiscale : Un impôt sur le revenu pour le 21<sup>e</sup> siècle*, Le Seuil.

OECD (2023), Enhancing International Tax Transparency on Real Estate: OECD Report to the G20 Finance Ministers and Central Bank Governors, July 2023, India.

OECD (2024), "The Global Minimum Tax and the taxation of MNE profit", working paper.

Piketty, Thomas and Gabriel Zucman (2014), "Capital is Back: Wealth-Income Ratios in Rich Countries 1700-2010", *Quarterly Journal of Economics*, 129(3): 1255-1310.

Piketty, Thomas, Emmanuel Saez and Gabriel Zucman (2018), "Distributional National Accounts: Methods and Estimates for the United States", *Quarterly Journal of Economics*, 133(2): 553-609.

Ring, Marius, David Seim and Gabriel Zucman (2024), "Do Scandinavian Countries Tax the Rich?", working paper.

Saez, Emmanuel, Danny Yagan, and Gabriel Zucman (2021), "Capital Gains Withholding," working paper.

Saez, Emmanuel and Gabriel Zucman (2016), "Wealth Inequality in the United States since 1913: Evidence from Capitalized Income Tax Data", *Quarterly Journal of Economics*, 131(2): 519–578.

Saez, Emmanuel and Gabriel Zucman (2019a), "Progressive Wealth Taxation", *Brookings Papers on Economic Activity*, Fall 2019, pp. 437-511.

Saez, Emmanuel and Gabriel Zucman (2019b), *The Triumph of Injustice: How the Rich Dodge Taxes and How to Make Them Pay*, W.W. Norton.

Saez, Emmanuel and Gabriel Zucman (2020), "The Rise of Income and Wealth Inequality in America: Evidence from Distributional Macroeconomic Accounts", *Journal of Economic Perspectives*, 34(4): 3-26.

Saez, Emmanuel and Gabriel Zucman (2022), "Wealth Taxation: Lessons from History and Recent Developments", *American Economic Association: P&P*, 112: 58–62.

Saez, Emmanuel and Gabriel Zucman (2023), "Distributional Tax Analysis in Theory and Practice: Harberger Meets Diamond-Mirrlees", NBER working paper, NBER working paper #31912.

## **Appendix A: Methodology for effective tax rates**

Figures 1 reports effective tax rates by income groups (with a zoom at the very top of the distribution) in four countries. Data is taken from the following studies and covers the following years:

- France: Bach et al. (2024). The year is 2016.
- Italy: Guzzardi et al. (2023). The year is 2015 (except the estimate for billionaires, which is for 2020).<sup>21</sup>
- Netherlands: Bruil et al. (2024). The year is 2016.
- United States: Saez and Zucman (2019b). The year is 2018.

These studies all use the same methodology, which involves four main steps. First, all taxes collected by government—individual income taxes, corporate income taxes, payroll taxes, property taxes, consumption and other indirect taxes, estate and inheritance taxes—are considered. The same internationally agreed definition of what constitutes a tax is used, following standard, harmonized national accounts definitions as codified in the System of National Accounts. This approach maximizes comparability across countries and over time. Taxes collected at all levels of government (national and subnational) are included. The total amount of tax considered in the analysis adds up to the total amount of tax revenues published by the OECD in its government revenue statistics.<sup>22</sup>

Second, taxes are all allocated to individuals following the current-tax analysis described in Saez and Zucman (2023). In particular, all corporate taxes are allocated to the owners of the corresponding corporations and all payroll taxes to the corresponding workers (no matter whether the tax is formally paid by the employer or by the employee).

Third, individuals are grouped by their pre-tax income. The same definition of pre-tax income is used in all studies. Following the distributional national accounts literature (see, e.g., Piketty, Saez and Zucman, 2018, and Blanchet et al., 2024), pre-tax income is defined as all income from labor and capital, after the operation of the pension system (i.e., net of contribution to pensions, both public and private, and including pension benefits). Pre-tax income adds up to national income as officially defined and recorded in the national accounts. National income includes all income that accrues to resident individuals, no matter the legal structures used to earn this income. Income is split equally between married spouses.

Fourth, for each group of the pre-tax income distribution, effective tax rates are computed by dividing total taxes by total pre-tax income. Because both taxes and pre-tax income follow

<sup>&</sup>lt;sup>21</sup> As mentioned in Section 1, the estimate for billionaires in Italy is based on one observation—that of Silvio Berlusconi, who as leader of a political party in Parliament, had to make public his income declared to tax authorities and the amount of taxes paid in 2020. Effective tax rate between "P99.9–P99.99" and "billionaires" are linearly interpolated and shown as a dashed line in Figure 1.

<sup>&</sup>lt;sup>22</sup> See <a href="https://www.oecd.org/tax/tax-policy/global-revenue-statistics-database.htm">https://www.oecd.org/tax/tax-policy/global-revenue-statistics-database.htm</a>

common and comprehensive definition, this approach maximizes the comparability of effective tax rates across income groups and across countries. A few remarks are in order.

Allocation of the corporate tax. In contrast to the methodology used here, some other researchers and government agencies allocate part of the corporate tax to people other than firm owners; see Saez and Zucman (2023) for a discussion. Following this practice would make the tax system look more regressive than reported in Figure 1, since the ownership of corporations is concentrated at the top of the distribution. For example, in France, Bach et al. (2024) estimate that billionaires have an "all-in" effective tax rate of 27% in 2016 when allocating all corporate taxes to the corresponding firm owners, of which about 25% comes from the corporate tax. Allocating ¼ of the corporate tax to workers would reduce the effective tax rate of billionaires from 27% to 21% (and would increase tax rates further down the income distribution).

Government transfers. The analysis focuses on taxes as conventionally defined. Taxes do not subtract government transfers and cannot be negative. The individual income tax is not reduced by social transfers and benefits (even when these benefits are administered by the tax administration), the corporate income tax is not reduced by the amount of subsidies granted by governments to corporations, etc. As detailed in Saez and Zucman (2020), taxes and transfers are distinct objects that need to be analyzed as such. This blueprint does not speak to the overall redistributive effect of government intervention (taxes plus government transfers and spending), an interesting question that falls outside of the scope of this report.

*Individual income tax*. For the computation of effective individual income tax rates shown in Figure 2, all taxes that are economically equivalent to individual income taxes are included in the analysis, such as the Cotisation Sociale Généralisée (CSG) in France. In the Netherlands, the tax on imputed capital income is also classified as an income tax.<sup>23</sup>

# **Appendix B: Methodology for simulations of reforms**

Figures 5, 6, 7, 9 and 10 report simulations of the effect of different reforms on tax progressivity. Due to data limitations, the analysis is restricted to high-income countries only.

The current profile of effective income tax rates in high-income countries is obtained by averaging the US profile with a weight of 50% and the European profile (obtained as the straight average of France, Italy, Netherlands) with a weight of 50%, except for billionaires for whom a straight average of the United States, Netherlands, and France is used (in effect assuming that

<sup>&</sup>lt;sup>23</sup> As detailed in Bruil et al. (2024), the Dutch income tax "treats labour and capital income differently. Labour income is taxed according to a progressive schedule with a 52% top rate. The taxation of (income from) capital differs for large shareholdings (at least 5% of a company) and all other forms of wealth (excluding owner-occupied housing and pension wealth). In the former case, capital income (dividends and realised capital gains) is taxed at a 25% rate. In the latter case, a 1.2% tax is levied on the stock of net wealth with no further taxation of the income derived from this wealth." The 1.2% levy is included as an income tax in the analysis.

France and the Netherlands are representative of the effective tax rate of non-US billionaires). Effective tax rates for individuals with wealth between \$100 million and \$1billion are assumed to be equal to the average effective income tax rate of the P99.99-P99.999 and P99.999-P99.999 groups of the income distribution. Given that the estimates are obtained by combining studies which are for the years 2016–2018, the results should be seen as representative of these years.

To simulate the effect of a minimum tax expressed as a fraction of wealth on tax progressivity (Figure 5, 6 and 7), starting from the current effective tax rate of billionaires (and centimillionaires), their effective individual rate is increased to 2% of wealth (or 1% and 3% in Figure 7), assuming 10% tax avoidance/evasion. Effective rates are expressed as a fraction of pre-tax income assuming a ratio of pre-tax income to wealth of 9% for billionaires and 11% for centimillionaires other than billionaires, in line with available evidence.

To simulate the effect of a 50% increase in the effective income tax rate at the top (Figure 9), current individual income tax rates of ultra-high-net-worth individuals (obtained by averaging the rates reported in Figure 2) are increased by 50%.

To simulate the effect of a well-enforced 40% estate tax (i.e., a 40% wealth tax on wealth at death) in Figure 10, an annual mortality rate of 1% for ultra-high-net-worth individuals is assumed, and thus  $40\% \times 1\% = 0.4\%$  of the wealth of ultra-high-net-worth individuals is assumed to be taxed annually. This amount is reduced by 10% to account for tax avoidance/evasion, and by the current amount of estate/inheritance tax revenues collected, estimated to be of the order of 1% of pre-tax income for centimillionaires and billionaires (the number observed in the United States, see Saez and Zucman, 2019).