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HOW PILLAR 2 AND INTERNATIONAL TAX REFORMS AFFECT US MULTINATIONAL TAXES

Thomas Brosy

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EXECUTIVE SUMMARY

In 2013, the Organisation for Economic Development and Cooperation (OECD) set up the Base Erosion and Profit Shifting (BEPS) project. The goal of the BEPS project was to evaluate the current taxation of multinationals, and to develop a framework for member countries to negotiate and implement new tax laws to combat tax avoidance. The efforts resulted in model rules divided between two pillars. Pillar 1 focuses on reallocating a fraction of reported profits from very large multinationals, based on where their consumers are. Pillar 2 establishes a global minimum tax of 15 percent and developed several tools and mechanism for implementation.[i] Pillar 2 is now effective in many jurisdictions.

Although the US has indicated it will not join the global tax deal, the Tax Cuts and Jobs Act of 2017 (TCJA) implemented broad changes to the taxation of US multinationals' foreign income, some of which helped design key elements of Pillar 2.[ii] Notably, it established a minimum tax on foreign earnings, called the global intangible low-tax income (GILTI) regime. In 2025, the GILTI regime imposes a tax rate of 10.5 percent on pooled foreign income, allows specific deductions for investment in tangible capital, and allows most foreign taxes as foreign tax credits that can reduce or eliminate a firm's GILTI tax liability.

The GILTI regime follows key principles of the BEPS efforts but still falls short of being aligned with Pillar 2. At 10.5 percent, and scheduled to increase to 13.125 percent in 2026, the GILTI tax rate is lower than the global minimum tax of 15 percent. But the key difference is how the two measures define the tax base. Under Pillar 2, the minimum tax is computed in each country, but the GILTI regime uses a global averaging method. A US multinational that reports significant profits in both tax havens and foreign countries with high tax rates may have little or no GILTI tax liability, despite paying very little taxes in some jurisdictions.

Since 2021, Congress and the White House have proposed alternative tax reforms, including tools developed under Pillar 2, that would increase taxes on the foreign income of US multinationals. Although political disagreements have stalled efforts to align the US with Pillar 2, its wide implementation in most countries will surely impact US multinationals' taxes.

To better understand how the global minimum tax would impact the tax burden of US multinationals once it is fully implemented, we enhanced TPC's international investment and capital model (IICM), which computes measures of the tax burden on new foreign investment by US multinationals (see Brosy [2024] for a detailed description of the model). The enhanced model can estimate effective average tax rates (EATRs)—which capture the tax burden on new profitable investments—under Pillar 2, as well as under various potential international tax reforms in the US.[iii]

In this paper, we show and discuss how we implemented several key principles: country-by-country tax liability, new deductions for payroll and tangible capital, and a flexible treatment of foreign tax credits. We

then specifically discuss how to estimate the impact of Pillar 2 on US multinationals' tax burden under the current GILTI regime. As in Brosy (2024), we allow for firms shifting some of the profits from their new investment to low-tax jurisdictions. We present results for two different types of multinationals: those with a residual GILTI liability in the current system and those with excess foreign tax credits. The effective average tax rate faced by the firm depends on how much of the new income is shifted, and whether a US multinational has a residual GILTI liability or excess foreign tax credits before the new investment.

We show that the broad implementation of Pillar 2 across the world will increase the tax burdens on many US multinationals but not all.

- Pillar 2 will raise taxes on low-tax income reported in tax havens. US corporations that have residual GILTI liability from income reported in low-tax jurisdictions will no longer be able to use new foreign tax credits against that liability and will face substantial increases in their EATRs – about 6.5 percentage points on average if none of the new income is shifted.[iv]
- US multinationals can shift new profits to tax havens to lower their foreign taxes. With GILTI, they can use new foreign tax credits against the new GILTI liability. By imposing a 15 percentage points minimum tax, Pillar 2 shuts off that mechanism, resulting in large increases in EATRs – about 8.8 percentage points when half of new income is shifted for corporations with a current residual GILTI liability. A multinational with excess foreign tax credits that shifts half of its new income would see an average EATR increase of 6.7 percentage points.
- Unsurprisingly, multinationals with excess foreign tax credits that shift little income will see no increase in their EATR and face an average increase of 3.6 percentage points when they shift a quarter of new profits.

Our estimates show that Pillar 2 works as intended: US multinationals engaging in profit-shifting or reporting profits in low-tax jurisdictions will face higher tax burdens. Multinationals that do limited profit-shifting will see little or no increase in their tax burdens.

Transitioning to a country-by-country GILTI system would be the most critical step in reducing profit-shifting incentives with little impact on multinationals that do not report a significant fraction of their income in low-tax jurisdictions or shift income generated by their new investments. The planned increase in the GILTI rate to 13.125 percent in 2026 combined with a country-by-country GILTI system would mostly align the US with Pillar 2.

We present the impact of two illustrative GILTI reforms. The first reform would move to a country-by-country system, increase the GILTI rate to 14.125 percent, increase allowed foreign tax credits to 95 percent of foreign taxes paid, and introduce a payroll deduction of 5 percent. Because of the 5 percent foreign tax credit

haircut, it would largely align with Pillar 2, while the 10 percent deduction of tangible assets and the payroll deduction would limit the increase in tax burden on new investments in tangible assets.

- The EATRs on tangible investments would go up between 6.6 and over 10 percentage points – depending on the amount of profit shifting for firms that have current GILTI liability. Moving to a country-by-country system would be responsible for most of the increase in tax burdens. The EATRs would mirror the increase under Pillar 2 for those corporations.
- For companies with excess foreign tax credits, there would be a small impact on new investments when they shift little profit. The increase would be comparable to firms with a residual GILTI liability when they shift half of their new income or higher.

The second illustrative reform would move to a country-by-country system, increase the GILTI rate to 21 percent, increase allowed foreign tax credits to 95 percent of foreign taxes paid and remove all deductions. This reform would increase tax burdens on almost all foreign investments and raise substantially more revenues than the current system. Only multinationals with excess foreign tax credits investing in high tax countries would see little change in their EATR. We show that optimal profit shifting for new investments is reduced with all reforms: Pillar 2 or a modest GITLI reform would likely lower profit shifting. Optimal profit shifting is even lower with the broad reform, but the change compared to the modest reform is marginal in comparison with the increase in EATRs.

ABOUT THE TAX POLICY CENTER

The Urban-Brookings Tax Policy Center aims to improve tax and fiscal policy decision making by producing independent, timely, and accessible analysis. We help policymakers, advocates, journalists, researchers, and the broader public understand how tax policy affects different groups of people, government revenues, and the economy.

[i] For additional information on Pillar 1 and Pillar 2, see: https://taxpolicycenter.org/briefing-book/what-are-oecd-pillar-1-and-pillar-2-international-taxation-reforms.

[ii] . In January 2025, the Trump administration issued an executive order (https://www.whitehouse.gov/presidential-actions/2025/01/the-organization-for-economic-co-operation-and-development-oecd-global-tax-deal-global-tax-deal/) clarifying that the "Global Tax Deal had no force or effect in the United States." and launching an investigation into "Discriminatory and Extraterritorial Tax Measures" which seemed to target the Undertaxed Payments Rule (UTPR) to enforce Pillar 2. In February 2025, the White House issued another executive order (https://www.whitehouse.gov/articles/2025/02/reciprocal-trade-and-tariffs/) suggesting that it will consider "unfair, discriminatory, or extraterritorial taxes on US businesses, workings, and consumers" by foreign countries in its tariff policy.

[iii] The model also computes average marginal tax rates (EMTRs), although in this paper we focus on EATRs, which are commonly used to compare tax burdens across countries for new investments. In contrast, EMTRs are useful to understand how tax systems may affect the size of investments.

[iv] We assume shifted income faces no foreign taxes in calculating the average increase in EATR.

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US TAXATION OF FOREIGN INCOME

Until 2017, the US operated under a worldwide corporate tax system, where the foreign earnings of US multinationals were taxed by the United States. However, foreign earnings were only taxed upon repatriation, which created incentives to defer repatriating foreign income and led US firms to retain a large fraction of their foreign income abroad (e.g., see Grubert and Altshuler [2013], Brosy [2024]). To incentivize repatriation, the US sometimes offered a "tax holiday" on repatriated earnings. Foreign earnings repatriated during a tax holiday would benefit from a much lower tax rate than the statutory tax rate. In this section, we outline the main mechanism of the Global Intangible Low-Taxed Income (GILTI) regime, introduced by the Tax Cuts and Jobs Act (TCJA) of 2017, and discuss in more detail the BEPS efforts and the mechanisms for implementing Pillar 2.

Current law

The TCJA moved the US to a territorial tax system under the standard corporate tax regime and introduced the GILTI regime, a minimum tax on the foreign income of US multinationals. The GILTI is defined as income earned from foreign operations in excess of a 10 percent return on the firm's depreciable tangible property. Corporations can deduct 50 percent of GILTI in calculating US tax liability, implying a tax rate on GILTI income of 10.5 percent (half of the regular corporate income tax rate of 21 percent). Companies can also claim foreign tax credits (FTCs) for 80 percent of foreign taxes paid or accrued on GILTI.[5]

From Brosy (2024), suppose a large US corporation owns foreign subsidiaries in Bermuda and France. The Bermuda subsidiary records $40 million in foreign income and pays no tax, and the French subsidiary earns $20 million in foreign income and pays $5 million in taxes. The Bermuda subsidiary owns no tangible asset, whereas the French subsidiary owns $100 million of depreciable property. The GILTI for this corporation would be $50 million ($60 million in foreign income minus 10 percent of $100 million in depreciable tangible assets). The US tax on GILTI would be $5.25 million (half of $50 million times the 21 percent corporate rate), against which the company can claim $4 million in foreign tax credit (80 percent of the $5 million paid in France). Thus, under the GILTI regime, this corporation would owe an additional $1.25 million in tax to the US.

The current GILTI tax system was partly designed to reduce profit-shifting incentives for US multinationals. Although the TCJA created new incentives to relocate intangible assets like intellectual property into the United States and started taxing US profits reported in low-tax jurisdictions and tax-havens, regardless of repatriation, there is evidence that profit-shifting remained large (e.g., Clausing [2020], Garcia-Bernardo, Janský and Zucman [2022]). Because of the combination of a low GILTI rate (10.5 percent until 2025) on foreign profits and the global averaging method to determine the GILTI liability, many US multinationals could

still substantially lower their foreign tax burden by shifting profits from foreign countries with high corporate tax rates while triggering little to no additional GILTI liability.

OECD's BEPS Pillar 1 and Pillar 2 regimes

The Base Erosion and Profit Shifting (BEPS) initiative by the Organisation for Economic Cooperation and Development (OECD) began in 2013 with an plan outlining specific actions to address and combat tax avoidance strategies by large multinationals that exploit gaps and weaknesses in tax rules, allowing them to shift profit from high taxing countries to low or no-tax jurisdictions, effectively paying very low effective tax rates. In 2015, the OECD published the "Inclusive Framework," which outlined steps and action plans to limit tax avoidance by multinationals. The BEPS efforts are centered around two main pillars, each addressing a key aspect of the challenges of taxing multinationals in modern economies.

There are three main ways to tax corporate income: residence-based, source-based, and destination-based. A residence-based tax system, also called "worldwide" tax system, gives taxing rights to the country where the company is located. In the case of multinationals, the country where headquarters are located has taxing rights, theoretically on all income generated by the company, regardless of where they arise. The US was operating under a worldwide tax system on repatriated foreign income until 2017. To avoid double-taxation, most countries with worldwide tax systems have tax treaties that define taxing rights and allow some or all foreign taxes paid as foreign tax credits.

A source-based tax system, also called "territorial" tax system, gives taxing rights to the jurisdiction where goods and services are produced. For goods and services that have an important intangible component (e.g., software or pharmaceuticals), jurisdictions where the intangible assets (like patents or other intellectual property [IP] rights) are located can make up a large portion of the production value. Until recently, most countries operated under a source-based corporate tax system, meaning they essentially taxed companies on where profits were reported.

Finally, a destination-based tax system gives taxing rights to the country where goods and services are sold (e.g., if a US multinational generates 10 percent of its revenues on sales in Germany, then Germany would have the right to tax 10 percent of the firm's profits). Worldwide and source-based tax systems are the most vulnerable to tax avoidance and profit shifting. Large corporations can change their headquarters (although it can be costly and present legal challenges). A famous example is a corporate inversion, whereby a US multinational would merge with a foreign company to swap their headquarter and be treated as a foreign corporation by the US, even though the shareholders of the original US multinational retain a majority of the new company. And with the rise of intangible assets, source-based systems have become increasingly vulnerable to profit-shifting, as IP rights can relatively easily be transferred to tax havens and generate large amounts of royalties and payments that face a very low rate.

In the BEPS framework, Pillar 1 focuses on the taxing rights and the allocation of the tax base. Its main goal is to reallocate profit to market jurisdictions where sales occur, following destination-based principles. Pillar 1 only applies to large corporations ("Covered Group"), those with over EUR 20 billion in revenues, and profitability over 10 percent.[6] It includes specific formulas to reallocate some profits across jurisdictions, and rules to avoid double-taxation.

In contrast, Pillar 2 seeks to introduce a global minimum tax to curb tax competition across countries and jurisdictions. As of January 2024, many of the over 100 countries[7] that have ratified the global tax agreement have begun implementing the minimum tax, although some specific tax tools are still being rolled out.[8] The current minimum tax outlined under Pillar 2 is 15 percent and applies to the income of affiliates of multinationals in each country. The OECD released extended guidelines on how countries should calculate the taxable income and effective tax rates, including taking into consideration complex tax incentives that vary across countries. To determine Pillar 2 income (or "GloBE" income), taxing countries rely on the reported financial income of multinationals, and then make adjustments following the Pillar 2 guidelines. Critically, the 15 percent minimum tax applies on a country-by-country basis, considering profits earned and taxes paid in each jurisdiction where the multinational operates.[9]

Countries can implement three main tools to enforce the global minimum tax of 15%. These tools are designed to ensure that multinational corporations pay the global minimum tax, regardless of their structure and where they operate. The first is the **qualifying domestic minimum top-up tax (QDMTT)**, which is a domestic minimum tax on domestic profits. The QDMTT mainly acts as a minimum tax for countries with low tax rates but can also be implemented as a backstop measure by countries with statutory tax rate above 15 percent if some multinationals pay a lower effective rate. These situations can arise because of the difference between a country's own tax rules and Pillar's 2 rules that determine taxable income and tax liability.

The second tool is the **income inclusion rule (IIR)**, which requires the parent company of a multinational to pay top-up taxes when its subsidiaries in foreign jurisdictions have an effective tax rate, defined by Pillar 2 rules, below the 15 percent minimum. This measure follows the residence-based principle, and countries where a multinational is headquartered would levy the tax. The IIR applies to the parent company of multinationals, but also to subsidiaries if they directly control other subsidiaries in low-tax jurisdictions. Many countries have already adopted a QDMTT or an IIR.[10]

The third and most complex and novel tool is the **undertaxed payments rule (UTPR)**, also sometimes called the undertaxed profits rule, which applies when the QMDTT and IIR fail to impose the 15 percent minimum on all worldwide profits of a multinational. Under this rule, countries where an affiliate of a multinational is located can disallow deductions or require adjustment of payments paid by that affiliate to another affiliate of the same multinational located in a low-tax jurisdiction, when the affiliate in the low-tax jurisdiction has an effective tax rate below 15 percent. Many countries, such as the United Kingdom, South

Korea, and Australia, and almost all countries in the European Union have a UTPR which becomes applicable on or after December 31, 2024.

Is the US compliant with Pillar 2?

The GILTI regime pioneered the concept of a minimum tax on the foreign income of multinationals and helped design the tax rules of Pillar 2. However, some key differences, and the progress of the OECD's efforts to fight tax avoidance and the adoption of the global minimum tax has prompted talks about international tax reforms in the United States since 2021, with no change so far. To align with Pillar 2, two key features of the GILTI regime would have to change the following:

- calculating the GILTI tax liability on a country-by-country basis, rather than on blended foreign income
- increasing the tax rate on foreign income (currently 10.5 percent and scheduled to increase to 13.125 percent in 2026)

In addition, two other key elements of the GILTI regime that differ from Pillar 2 guidelines could be adjusted:

- the deductions for investments in tangible assets (now 10 percent) and for payroll (there are no deductions for payroll currently)
- the treatment of foreign tax credits (currently only 80 percent of foreign taxes can be used as foreign tax credits)

Moving to a system where the minimum tax on foreign income is calculated in each jurisdiction, rather than on blended income is perhaps the most critical mechanism to curb tax avoidance behavior and profit-shifting. Under the current system, companies that invest and generate income in high-tax countries have incentives to lower their foreign tax liability by shifting profit to low-tax jurisdictions. And given the structure of the current GILTI regime, even aggressive forms of profit-shifting may result in very little or no additional tax liability in the US. Increasing the tax rate on foreign income would also be a necessary step to align the US with Pillar 2 and raise additional revenues. This would increase the tax burden on new investments, although the deductions for investments in tangible assets are very effective at reducing tax burdens.

In that context, most of the residual tax on foreign income would apply to profit generated from intangible assets or shifted profit, while returns from tangible investments would face a much lower additional tax burden than the statutory GILTI rate. Finally, changing the treatment of foreign tax credits would go along with moving to a country-by-country system and increasing the tax rate on foreign income. Haircuts on foreign tax credits can help raise additional revenues when companies engage in profit-shifting but make less economic sense under a new system that better limits tax avoidance opportunities (with no tax avoidance or profit-shifting, the haircut typically results in double taxation on a fraction of foreign income).

MODELING KEY FEATURES OF INTERNATIONAL TAXATION

Brosy (2024) describes work that enhanced the international and investment capital model at TPC and developed a framework (following the Devereux and Griffith framework [1998, 2003]) that estimates the effective marginal and average tax rates on foreign investment by US multinationals under different conditions. In this section, we present how we extended the model to evaluate the tax burden on foreign investments under Pillar 2, as well as under various international tax reforms in the US.

First, we briefly review the framework. The model starts from the estimated dividends generated by a new foreign investment in tangible capital:

$$D_t = Q(K_{t-1})(1-\tau^F) - I_t + \mathrm{B_t} - \left[1 + \mathrm{i}\left(1-\tau^{\mathrm{F}}\right)\right]\mathrm{B_{t-1}} + \tau^F\phi^F(I + K_{t-1}^T) \\ -[(Q - i - \mathrm{QBAI})\tau^G - \tau^G\phi^G - \mathrm{FTC} * x * \tau^{\mathrm{F}}\mathrm{Y^F}] \quad (1)$$

where $Q(1-\tau^F)$ is the return on the investment after foreign taxes; I_t is the cost of the investment; $\mathrm{B_t}$ is the amount of money raised through debt financing; $[1 + \mathrm{i}(1-\tau^{\mathrm{F}})]\mathrm{B_{t-1}}$ the cost of reimbursing previous debt; $\tau^F\phi^F$ is the value of depreciation allowances in the foreign country, which is based on depreciable value of current investment and new investment; $(I + K_{t-1}^T)$, $Q\tau^G - \tau^G\phi^G$ is the GILTI tax liability (GILTI tax net of depreciation allowances) where $\tau^{\mathrm{F}}\mathrm{Y^F} = \tau^F Q - \tau^F\phi^F(I + K_{t-1}^T) - \tau^F\mathrm{B_{t-1}}$ represents the foreign taxes paid by the foreign subsidiary; x is the inclusion percentage (see below for calculations); and FTC is the fraction of foreign taxes allowed as tax credits (80 percent under current law).

The value for qualified business asset investment (QBAI)—a deduction from GILTI income for investments in tangible assets abroad—is 10 percent under current law, so for a normalized investment of 1, the QBAI is simply equal to 0.1. We estimate the inclusion percentage as $x = 1 - (0.1 - \hat{f})/(Q - \phi - \hat{f})$, and $\hat{f} = (1 - \phi\tau^{GILTI}) * i/(1+i)$ when the investment is debt financed. The after-tax return on this investment before depreciation and interest deductions is $(p+\delta)(1-\tau^F) - \left[\left[(p+\delta) - (0.1 - \hat{f})\right]\tau^{GILTI} - 0.8 * x * \tau^F Y^F)\right]$, where $(p+\delta)(1-\tau^F)$ represents profit net of foreign taxes paid, $\left[(p+\delta) - (0.1-\hat{f})\right]\tau^{GILTI}$ is the GILTI tax liability, and $0.8 * x * \tau^F Y^F$ represents allowed FTCs.[11] The tax present value of depreciation allowance for net foreign taxes and GILTI becomes $\tilde{A} = \hat{A}^G + A^F(1 - 0.8 * x)$, where $\hat{A}^G$ is the tax present value of depreciation allowances under the GILTI regime, and A^F is the present value of depreciation allowances under the foreign tax regime. We can write the post-tax economic rent as follows:

$$R^{TANG} = -\frac{r+\delta}{1+r}\left(1 - \tilde{A}\right) + \frac{p+\delta}{1+r}(1 - (1 - 0.8x)\tau^F - \tau^{GILTI}) + \frac{0.1 - \hat{f}}{(1+r)(1-\tau^F)}\tau^{GILTI} + \tilde{F}, \quad (2)$$

The value of interest expenses is $\tilde{F} = \hat{F}^G + F^F(1 - 0.8 * x)$. When using equation (2) above to determine the effective average tax rate, we implicitly assume that the firm can use all its foreign tax credits. For investments in intangibles, we simply compute the equation above under the assumption that QBAI equal zero.

Under the assumption that the firm has no residual GILTI liability before the investment, the relevant present value is the minimum between equation (2) and the present value of income in the foreign country, which is below:

$$R^{FOREIGN} = -\frac{r+\delta}{1+r}(1-\mathrm{A^F}) + \frac{p+\delta}{1+r}(1-\tau^{\mathrm{F}}) + \mathrm{F^F} \quad (3)$$

See Brosy (2024) for detailed derivations of the model, including the marginal cost of capital, and explanations when including profit-shifting behavior.

Accurate analysis of the global minimum tax requires model enhancements to account for specific aspects of the tax including country-by-country calculations of minimum tax, and deductions for tangible capital and payroll. Those enhancements are described below. We start by presenting how effective average tax rates are affected by country-by-country GILTI tax liability. We then discuss how to implement changes in deductions for tangible capital and payroll, as well as changes to the treatment of foreign tax credit. Finally, we specifically discuss how to implement the impact of Pillar 2 on US multinationals under the current regime.

Country-by-country evaluation of tax liability

When the GILTI liability is evaluated at the country level, rather than blending foreign income across controlled foreign corporations (CFCs), the tax burden on a new investment will not depend on the tax situation of the parent company, and only on the tax system of the country of investment. Abstracting from local tax credits, and differences in the treatment of depreciation between the GILTI regime, which operates under the Alternative Depreciation System (ADS), and the country of investment, then the new investment will not generate a GILTI liability when the foreign country has a tax rate higher than the GILTI rate divided by the allowed the fraction of foreign taxes allowed as foreign tax credits. Under current law, this implies investments in a country with a rate higher than 13.125 percent (10.5 percent/0.8) would not trigger additional GILTI liability. We can define $\tau^{\mathrm{MIN}} = \max[\frac{\tau^G}{\%\ Allowed\ FTCs}, \tau^F]$ as the maximum between the foreign tax rate and the rate that triggers a GILTI liability (currently 13.125 percent). In practice, we must consider the foreign country's depreciation regime, which can trigger GILTI liabilities by lowering the effective foreign tax rate. In the model, we evaluate the present value of an investment under the GILTI rules for depreciation and a rate equal to the GILTI rate divided by allowed FTCs, and under the foreign tax regime. Theoretically, moving to a country-by-country regime does not impact the minimum and maximum tax liability of a new investment.

The minimum present value of income (which translates to the higher effective average and marginal tax rates) under the GILTI regime and under the foreign tax regime determines the final tax burden on the investment. When the investment triggers a residual GILTI liability, $\mathrm{R^{GILTI}}$ applies, and when the investment does not trigger a residual GILTI liability, $\mathrm{R^{FOREIGN}}$ applies.

$$R^{US\ MNE} = \min\left[\mathrm{R^{GILTI}}, R^{FOREIGN}\right]$$

Where the present value of an investment under the GILTI minimum tax is shown in equation (2) and the present value of an investment only considering foreign taxes is show in equation (3). Essentially, a country-by-country GILTI regime generates the same effective tax rates as the standard regime under the assumption that the firm had no residual GILTI tax liability before the new investment.

To find the marginal cost of capital for a tangible investment, we compute the marginal cost of capital based on $\mathrm{R}^{\mathrm{GILTI}}$ and on $R^{FOREIGN}$, and assign the relevant cost of capital depending on which one is relevant. For tangible assets under the GILTI regime, it is as follows:

$$\tilde{p}^{GILTI-TANG} = \frac{1}{(1-(1-0.8x)\tau^{F}-\tau^{GILTI})}\left[(1-\tilde{A})*(r+\delta)-\frac{(0.1-\hat{f})}{1-\tau^{\mathrm{F}}}*\tau^{G}\right]-\delta-\frac{\hat{F}(1+r)}{(1-(1-0.8x)\tau^{F}-\tau^{GILTI})}$$

and under the foreign country regime, it is as follows:

$$\tilde{p}^{\mathrm{F}} = \frac{(1-A^{F})(r+\delta)}{(1-\tau^{F})}-\delta-F^{F}\frac{(1+r)}{(1-\tau^{F})} \quad (4)$$

The relevant cost of capital is simply the maximum between the two: $\tilde{p} = max\,[\,\tilde{p}^{GILTI}, \tilde{p}^{\mathrm{F}}\,]$.

PROFIT SHIFTING

Moving to a country-by-country regime still maintains some profit-shifting incentives, but to a much lower degree than under a global averaging regime. Essentially, profits shifted to tax havens are still taxed under the GILTI regime, with a minimum tax rate of 10.5 percent. Under the global averaging method, a firm that invests in a country with a 30 percent corporate income tax rate could get an average tax rate of 15 percent globally by roughly shifting 50 percent of income to a country with a zero percent tax rate. But with a country-by-country regime, the same firm would have to shift almost 70 percent of its profit to pay an average 15 percent tax rate on its profits. For a given amount of profit shifted, moving to a country-by-country regime will increase the tax burden on new investments.

We define the fraction of profit shifted as ζ. We assume that all profit shifted to a tax haven will be subject to the GILTI regime. Because the GILTI liability is estimated separately in the country of investment and where profits are shifted, we can estimate the net present value of income as the combination of the net present value of income in both countries.

$$R^{NEW} = \mathrm{R}^{\mathrm{HT}} + \mathrm{R}^{\mathrm{LT}}$$

R^{HT} represents the net present value of income reported in the "high-tax" country where investment occurs (we keep the same terminology, even if the investment is in a low-tax country), and R^{LT} is the present value of income reported in the jurisdiction where profit is shifted. The present value of income in the country of investment is either the foreign country tax liability, if there are no residual GILTI income, or the residual GILTI liability and the share of foreign taxes that cannot be claimed as FTCs:

$$R^{HT} = \min\left[-\frac{r+\delta}{1+r}(1-\tilde{A}\ ) + (1-\zeta)\left(\frac{p+\delta}{1+r}(1-(1-0.8x)\tau^{HT} - \tau^{GILTI})\right) + \frac{0.1-\hat{f}}{(1+r)(1-\tau^{HT})}\tau^{GILTI} + \tilde{F}\ ; -\frac{r+\delta}{1+r}(1-A^{HT}) + (1-\zeta)\frac{p+\delta}{1+r}(1-\tau^{HT}) + F^{HT}\right] - \frac{\eta}{1+r} \quad (5)$$

$\tilde{A} = A^{G} + A^{HT}(1-0.8*x)$ and $\tilde{F} = F^{G} + F^{HT}(1-0.8*x)$ still represent the value of depreciation allowances and cost of financing in the country of investment, τ^{HT} is the statutory corporate tax rate in the country of investment, and shifting costs are captured by η. Under this framework, we assume that the affiliate in the country of investment pays the shifting costs, but we can easily assume the affiliate in the low-tax country bears the costs, or that they are shared across affiliates. In the country where profits are shifted, the net present value of income is simply the share of profit shifted, minus the residual GILTI liability (in this specification, we assume that the low-tax country has a tax rate lower than 13.125 percent, and will always have a GILTI liability):

$$R^{LT} = \zeta\left(\frac{p+\delta}{1+r}(1-0.2\tau^{LT} - \tau^{GILTI})\right) \quad (6)$$

Note that if the country of investment generates a residual GILTI liability, the country-by-country tax burden is the same as under the global averaging method. However, when the final tax burden in the country of investment is simply the foreign tax liability, the total tax burden of a new investment will be larger under the country-by-country regime. In a world where profit-shifting is costless and unbounded, there would be no differences between the two regimes, as firms would simply shift all their income to the lowest-tax country. However, when profit shifting is costly, the optimal amount shifted will be lower under the country-by-country regime.

The marginal cost of capital depends on R^{HT}, and whether there is a GILTI tax liability in the country of investment or not. The cost of capital if there is a residual GILTI tax liability in the country of investment is as follows:

$$\tilde{p}^{1} = \frac{1}{1-\tau^{GILTI} - (1-\zeta)*(1-0.8x)\tau^{HT} - \zeta*0.2\tau^{LT}} * \left[(r+\delta)*(1-\tilde{A}\ ) - (1+r)*\tilde{F} - \frac{(0.1-\hat{f})}{1-\tau^{HT}}*\tau^{GILTI} + \eta\right] - \delta$$

When there is no residual GILTI tax liability in the country of investment, it is as follows:

$$\tilde{p}^{2} = \frac{1}{1-(1-\zeta)*\tau^{HT} - \zeta*(0.2\tau^{LT} + \tau^{GILTI})} * [(r+\delta)*(1-A^{HT}) - (1+r)*F^{HT} + \eta] - \delta$$

And the relevant cost of capital is simply $\tilde{p} = \max[\tilde{p}^{1}, \tilde{p}^{2}]$.

NEW CARVEOUTS FOR TANGIBLE ASSETS AND PAYROLLS

A lower carveout for tangible assets and payrolls increases the amount of foreign income subject to GILTI, all else equal, and increases the total GILTI liability and effective tax rate on an investment when there is a residual GILTI liability. Modeling a different carveout on tangible assets is straightforward in the model, if the carveout remains a constant fraction of depreciable assets, like the current qualified business asset investments (QBAI)

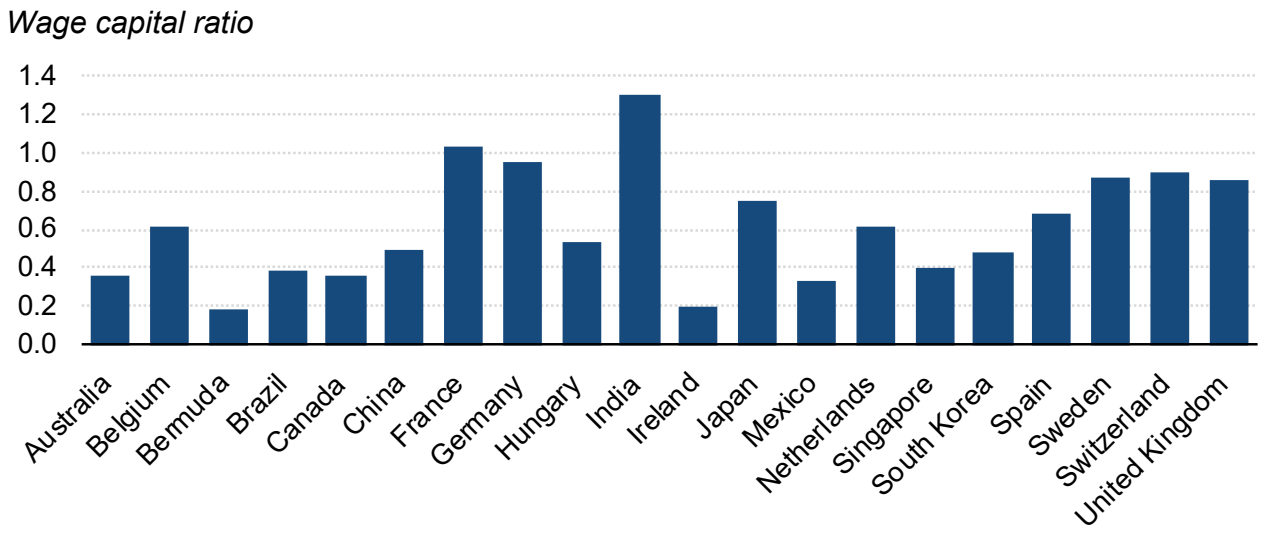
deduction of 10 percent of the remaining depreciable value of tangible capital. If the allowed carveout changes year-to-year, we estimate an average present value of the carveout as a fraction of the investment.

Modeling a carveout on labor requires strong assumptions or empirical calibration. For a precise estimate one would have to estimate the average yearly labor cost associated with an investment across a range of assets. Given the wide variation in capital-labor complementarity, or substitutability, we take a simple calibration approach by leveraging data on US multinationals from the Bureau of Economic Analysis and compute the average ratio of total wages to net property plant and equipment values in each country and year. We then take an average for years 2018 to 2022 and use the relevant ratio in each country to estimate the value deductions for payroll. For example, if the allowed deduction for payroll is 10 percent and the computed ratio of wages to net property is 0.5, meaning that, on average, wages represented half the reported net value of property plant and equipment, then an investment of $100 would have a payroll deduction of $5 ($100*10%*0.5). Figure 1 highlights the empirical wage capital ratio across a range of countries where US multinationals operate (Figure A.1 in the appendix reports the wage capital ratio for additional countries). The drawback of this method is that it relies on a past average ratio. But new capital investments may have a very different capital-labor complementarity, especially if the introduction of payroll deductions incentivizes capital investments that complement labor. Alternatively, we also compute effective average tax rates without any deduction for payroll, which represent upper bounds.

FIGURE 1

Wage Capital Ratio

Foreign activities of US multinationals, average 2018–22



Source: Author's calculations.
Notes: We estimated the wage-capital ratio by dividing wages by reported net property of US multinationals from the Bureau of Economic Analysis. We calculated the ratio each year and report the average between 2018 and 2022. See Figure A.1 in the appendix for additional countries and the value of payroll deductions.

FOREIGN TAX CREDITS

The current GILTI system imposes a 20 percent haircut on foreign taxes, meaning if a company pays $100 in foreign taxes, it can use $80 in foreign tax credits. A different haircut has two major implications. First, for a given applicable GILTI rate, it changes the threshold of foreign corporate tax rates at which a GILTI liability is triggered. Second, and assuming a GILTI liability is triggered, a lower haircut increases the amount of foreign tax credits applicable against the GILTI liability and lowers the overall effective average tax rate on new investments. To compute the net present value of a new investment in the country of investment, we adjust equations 5 and 6:

$$\mathrm{R^{HT}} = \min\left[-\frac{r+\delta}{1+r}\left(1-\tilde{A}\ \right)+(1-\zeta)\left(\frac{p+\delta}{1+r}\left(1-(1-FTC*x)\tau^{\mathrm{HT}}-\tau^{GILTI}\right)\right)+\frac{(\mathrm{D^A}+\mathrm{D^P})-\hat{f}}{(1+r)(1-\tau^{HT})}\tau^{GILTI}\right.$$
$$\left.+\tilde{F}\ ;\ -\frac{r+\delta}{1+r}(1-\mathrm{A^{HT}})+(1-\zeta)\frac{p+\delta}{1+r}(1-\tau^{\mathrm{HT}})+\mathrm{F^{HT}}\right]-\frac{\eta}{1+r}$$

$$\mathrm{R^{LT}} = \zeta\left(\frac{p+\delta}{1+r}\left(1-(1-\mathrm{FTC})*\tau^{LT}-\tau^{GILTI}\right)\right)$$

FTC captures the fraction of foreign taxes allowed as foreign tax credits and $(\mathrm{D^A}+\mathrm{D^P})$ represent the allowed deductions for investment in tangible capital and payroll. The inclusion percentage now is: $x = 1-[(\mathrm{D^A}+\mathrm{D^P})-\hat{f}]/(Q-\phi-\hat{f})$, and the value of depreciation and financing costs are $\tilde{A}=\hat{A}^G+A^F(1-\mathrm{FTC}*x)$ and $\tilde{F}=\hat{F}^G+F^F(1-\mathrm{FTC}*x)$. The net present value of income in the country where profit is shifted is similar with only a small adjustment:

$$\mathrm{R^{LT}} = \zeta\left(\frac{p+\delta}{1+r}\left(1-(1-\mathrm{FTC})*\tau^{LT}-\tau^{GILTI}\right)\right)$$

As stated previously, the present value of an investment that defines the effective marginal tax rate is the combination of $\mathrm{R^{HT}}$ and $\mathrm{R^{LT}}$. The cost of capital follows the same formula as defined previously, with adjustments for allowed tangible capital and payroll deductions, and allowed foreign tax credits.

Pillar 2

Pillar 2 operates similarly to the country-by-country version? of GILTI. For modeling purposes, it is not important which country collects the top-up tax, if a subsidiary in a low-tax country pays less than the global minimum tax. We can define the global pillar tax as $\tau^{\mathrm{P}} = 15\%$.

The tax burden will be determined by the lowest of the net present value of income calculated under the tax regime a US multinational faces absent Pillar 2 and under the Pillar 2 rules. For US multinational, the net present value of income is defined as $R^{US\ MNE} = \min[R^{GILTI}, R^{FOREIGN}]$. The final net present of income will thus be the minimum between $R^{US\ MNE}$ and under Pillar 2:

$$R^{FINAL} = \min[R^{US\ MNE}; R^{PILLAR\ 2}]$$

We define the net present value of income under the global minimum tax as follows:

$$R^{PILLAR\ 2} = \ -\frac{r+\delta}{1+r}(1-\mathrm{A^P}) + \frac{p+\delta-(\mathrm{D^A}+\mathrm{D^P})}{1+r}(1-\tau^{\mathrm{P}}) + \mathrm{F^P} \quad (7)$$

$\mathrm{A^P}$ and $\mathrm{F^P}$ are the tax value of depreciation and the cost of financing under the Pillar 2 regime. Because Pillar 2 allows countries to offer accelerated depreciation to determine taxable income, $\mathrm{A^P}$ equals the present value of depreciation allowances in the country of investment times the minimum tax rate (15 percent). Pillar 2 rules allow interest expense to be deducted from income, although there are complexities. For simplicity, we currently allow all interest deduction in the model but can easily include restrictions. The carveouts for tangible assets and payroll are represented by $(\mathrm{D^A}+\mathrm{D^P})$.[12]

PROFIT-SHIFTING

As previously shown, the net present value of an investment with profit-shifting can be characterized as the sum of the net present value in the country of investment and in the jurisdiction where profit is shifted $R^{PILLAR\ 2} = \mathrm{R^{HT-P2}} + \mathrm{R^{LT-P2}}$. In the country of investment, the net present value of investment is the minimum between the net present value under US tax law (which is itself the minimum between the foreign country tax liability, and the GILTI tax regime, as in equation 5), and under the global minimum tax:

$$\mathrm{R^{HT-P2}} = \min\left[\mathrm{R^{HT}}\ ;\ -\frac{r+\delta}{1+r}(1-\mathrm{A^P}) + (1-\zeta)\frac{p+\delta-(\mathrm{D^A}+\mathrm{D^P})}{1+r}(1-\tau^{\mathrm{P}}) + \mathrm{F^P} - \frac{\eta}{1+r}\right]$$

In the jurisdiction where profit is shifted, the net present value of income is the minimum between the net present value under the GILTI regime (see equation 6) and under the global minimum tax:

$$\mathrm{R^{LT-P2}} = \min\left[\mathrm{R^{LT}};\ \zeta\frac{p+\delta}{1+r}(1-\tau^{\mathrm{P}})\right]$$

As previously stated, we assume that the affiliate in the high-tax country pays the shifting costs and that they are not tax deductible, but we can easily change that assumption.

To derive the marginal cost of capital, we follow the same principles as in the previous section and derive the relevant cost of capital for each investment based on $R^{PILLAR\ 2}$. We first compute the marginal cost of capital under US tax law, and under the global minimum tax. We then pick the relevant cost of capital, which is the maximum between the two.

Importantly, which instrument is used to enforce the global minimum tax may impact the final tax liability of a firm and EATRs. Qualifying domestic minimum top-up taxes imposed by the country where profit is reported are creditable in the United States, as are top-up taxes from the income inclusion rule. However, it is unclear whether the IRS will allow payments under the undertaxed payments rule to be creditable against US taxes. In the model, we assume that all foreign taxes paid are creditable against GILTI tax liability.

EVALUATING PILLAR 2 AND ILLUSTRATIVE INTERNATIONAL TAX REFORMS FOR US MULTINATIONALS

In this section we show how the introduction of Pillar 2 impacts the effective average tax rates (EATRs) on new foreign investments by US multinationals. We then present the impact of three potential changes to the GILTI regime to illustrate their impact on EATRs. The first reform is keeping the current GILTI system but moving to a country-by-country regime. The second is a modest reform that would just align the US with Pillar 2. The third option is a broad reform that is aimed at raising substantial revenues on the foreign income of US multinationals, notably by raising the GILTI rate to 21 percent.[13]

Impact of pillar 2 on effective tax rates

We now turn to the implementation of the Pillar 2 global minimum tax and how it will impact the tax burden on new foreign investments by US multinationals. As a reminder, we distinguish EATRs for two types of firms:

- Multinationals with residual GILTI liability before the new investment takes place, such that **all new foreign tax credits generated can be used against the previous GILTI liability.**
- Multinationals with excess foreign tax credits (no residual GILTI liability) *before* the new investment takes place, such that **new foreign tax credits can only be used against new GILTI** liability, and the new investment can generate excess foreign tax credits.

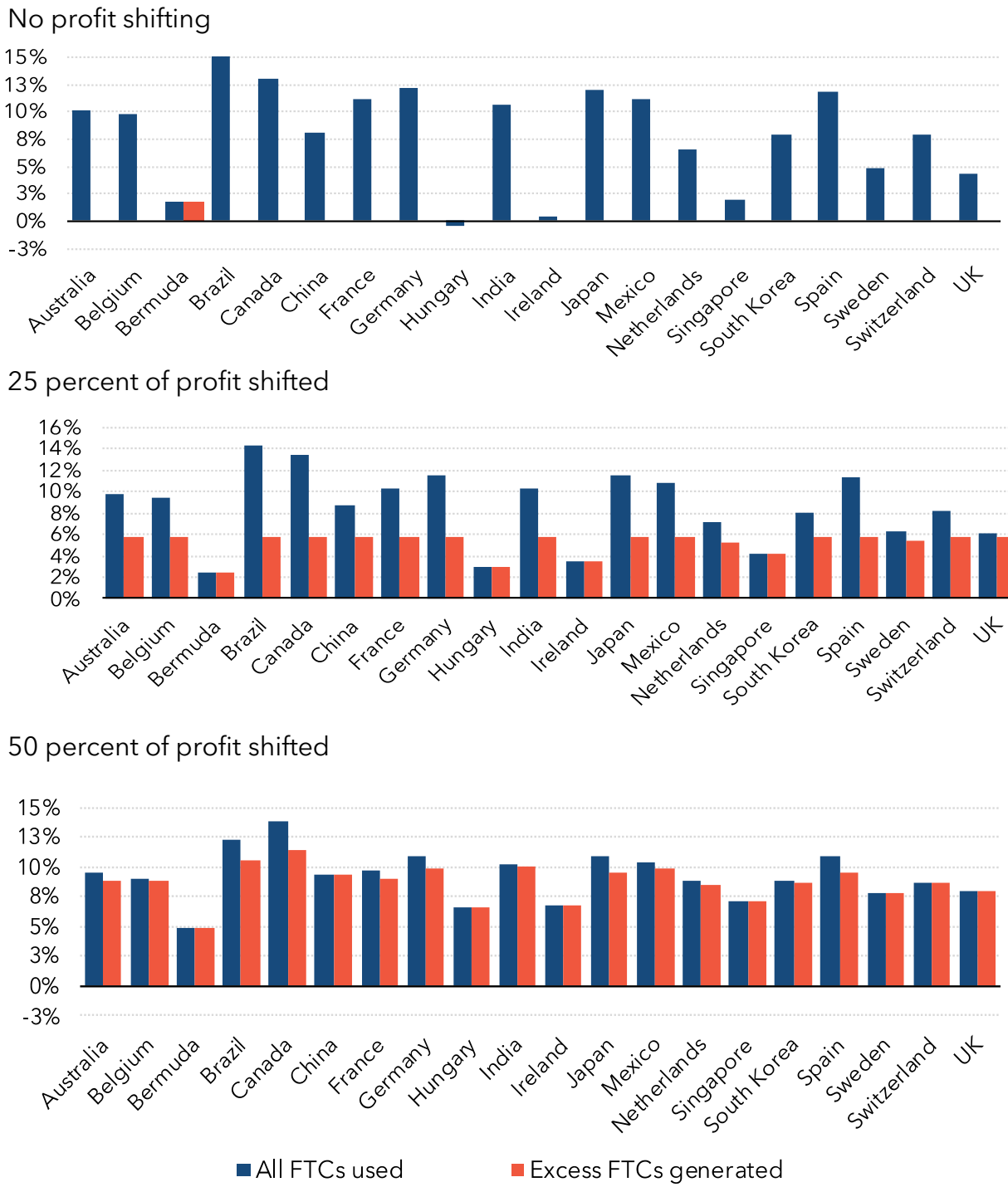
Figure 2 provides a comparative analysis of the impact of a wide implementation of Pillar 2 compared with a world without the global minimum tax on EATRs across countries, with different amounts of profit shifted. The blue bars highlight the impact of Pillar 2 for companies that have residual GILTI liability and could previously use all the foreign tax credits generated by the new investment. The red bars show the impact of Pillar 2 on multinationals that did not have a residual GILTI liability, and new investments can generate excess foreign tax credits.

When there is no profit-shifting (figure 2, top), the introduction of the global minimum tax raises EATRs substantially across most countries for firms that could previously use all the new foreign tax credits generated (blue bars). This results from the assumption that multinationals would not have any residual GILTI liabilities from current investments, because the income that generated a GILTI liability would likely face a top-up tax under Pillar 2. Compared to the situation where a firm had no residual GILTI liability (red bars), the implementation of Pillar 2 only leads to higher EATR in Bermuda (or comparable jurisdictions with no income tax). Because Bermuda has no income tax, Pillar 2 generates new taxes, and the red bars highlights the combination of the 20 percent haircut on foreign tax credits under GILTI, and unused credits. Pillar 2 has no impact on EATRs for tangible investments in Ireland, despite its corporate income tax rate of 12.5 percent, because of the deduction for tangible capital and depreciation allowances.

FIGURE 2

Effect of Pillar 2 on Outbound EATRs by Country

For 2025



Source: Author's calculations.

Notes: EATR = effective average tax rate; FTC = foreign tax credit. The EATRS are a composite of tangible assets, with 50 percent structures and 50 percent equipment. The graph shows the impact of the global minimum tax of 15 percent under Pillar 2 if applied to profits from US multinationals in 2025 in addition to the GILTI regime compared with no global minimum tax and only the GILTI regime. All FTCs captures the change in EATR for firms that previously had GILTI liabilities and could use all foreign tax credits generated against that liability. Excess FTCs captures the change in EATR for firms that can only use new foreign tax credits against new GILTI liability. Note that if US multinationals can use the Pillar 2 tax credit, the net impact would be 20 percent of the impact presented here because only 80 percent of foreign taxes paid are allowed as foreign tax credits under the GILTI regime.

Because we estimate EATRs under the current system, our estimates are likely upper bounds. A low-tax jurisdiction that chooses to impose the minimum tax may also allow for more generous depreciation of new assets. In general, countries can implement policies that vary the treatment of depreciation, since Pillar 2 retains the value of generous depreciation, even if it brings down the effective tax rate below 15 percent. Countries may also issue new tax credits, which retain most of their value under Pillar 2.

When multinationals shift a quarter of the new income (figure 2, middle), the global minimum tax raises EATRs across the board compared with the GILTI regime, for both firms that had a residual GILTI liability before the investments (blue bars) and firms that had excess foreign tax credits (red bars). For firms that had a residual GILTI liability before the investment in the absence of Pillar 2, the increase in EATR in figure 5 (25 percent of profit shifting) is similar to figure 2 (no profit shifting) because they lose the ability to use any new tax credits against previous investments. If the rest of the world adopts the global minimum tax, we assume that any previous investment would generate enough tax credits to apply against the GILTI liability. For greenfield investments by firms with no previous GILTI liability (red bars), shifted profit is now taxed, which raises the EATRs. And when more profit is shifted, fewer foreign tax credits are generated in the country of investment, reducing the wedge between multinationals that had a residual GILTI tax liability before the new investment, compared to firms that did not. When half of new income is shifted (figure 2, bottom), Pillar 2 would substantially increase EATRs across the board, regardless of the initial situation of the firm.

Figure 3 illustrates the impact of Pillar 2 on EATRs compared with the current GILTI regime in one country (Japan). The figure presents three potential EATRs under the current GILTI regime. The red line shows the EATR of a new investment in tangible assets, if a multinational had no residual GILTI liability prior to the investment (and the new investment can generate excess foreign tax credits). Without profit shifting, the EATR is typically defined by the tax burden in the foreign country. As the company shifts profit, the EATR gradually decreases until there is no foreign tax liability, leaving only a residual GILTI tax. The red dotted line represents the same EATR but assumes no QBAI deduction when the net income in the country of investment is negative.[14] It follows a similar pattern to the red line, but when the income from the underlying asset (i.e., either machinery or structures) becomes negative, the absence of the QBAI deduction increases the EATR. The yellow line depicts the EATR from a new investment, assuming that all foreign tax credits can be used, which would occur if a multinational had a residual GILTI liability from previous investment in low-tax countries and could use all new foreign tax credits generated.[15]

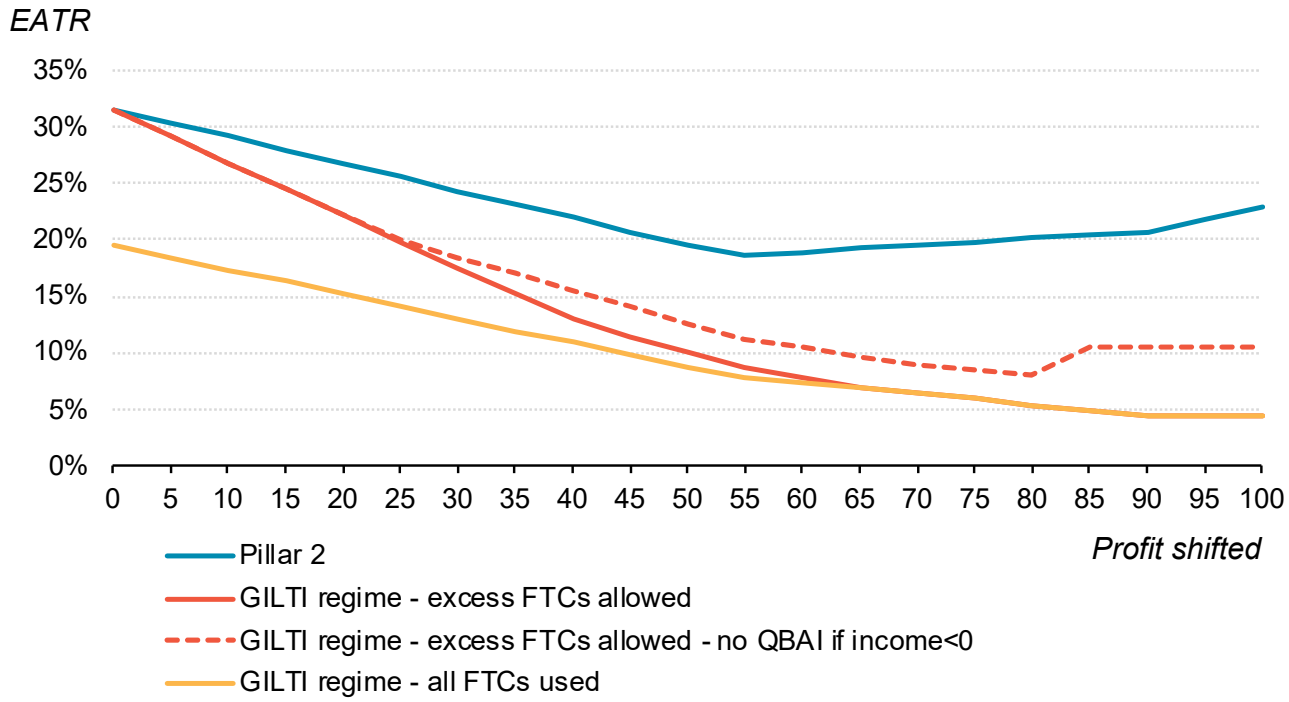
In contrast, the blue line depicts the EATR under Pillar 2. While profit-shifting still reduces the EATR, it does so by a lesser extent than under the GILTI regime because the minimum tax of 15 percent is applied at the country level, and a new residual tax liability is generated when the company begins shifting profit. Under the GILTI regime, profit shifting does not generate new tax liability due to its global averaging method. Under Pillar 2, the EATRs reach their lowest point when slightly more than half of the newly generated profit is shifted. Beyond this threshold, shifting profit results in additional tax liability in the low-tax jurisdiction, but a loss of

deductions in the country of investment due to the absence of a remaining tax liability. In contrast, under the current GILTI regime, a multinational can always benefit from depreciation deductions. The GILTI rules allow multinationals to combine income across its affiliates, resulting in a net loss in the investment country and positive income in the country where profit is shifted. The only potential loss under GILTI is the QBAI, which multinationals cannot claim in affiliates with a tested loss.

FIGURE 3

Comparison of EATRs under GILTI Regime and Pillar 2

Equity-financed tangible assets, Japan, 2025



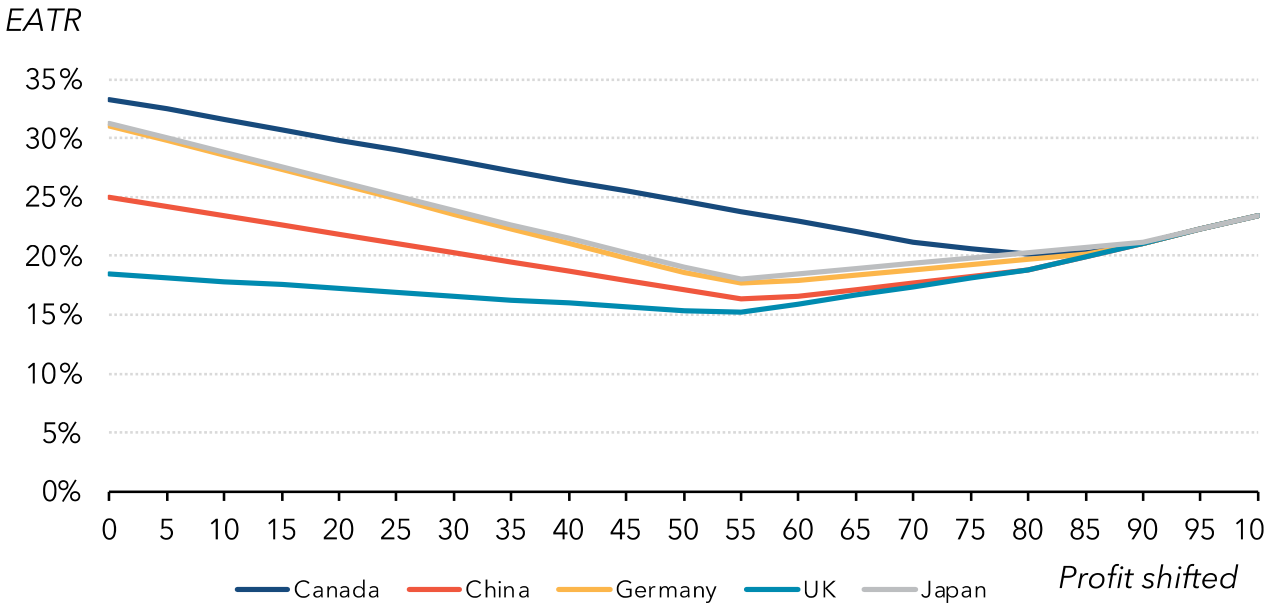
Source: Author's calculations.
Note: EATR = effective average tax rate; QBAI = qualified business asset investment; FTC = foreign tax credit. The EATRS are a composite of tangible assets, with 50 percent structures and 50 percent equipment. The blue line represents the EATR under Pillar 2. When profit shifting implies the income generated by the asset becomes negative, the investment does not benefit from the tangible or payroll deduction. The red line shows the EATRs when FTCs generated by the new investment can only be used against GILTI liability generated by the same investment. The dotted red line further assumes the QBAI is not available when the income generated by the asset invested becomes negative in the country of investment after deductions. The yellow line represents EATRs when all the FTCs generated by the new investment are used against other GILTI liabilities.

Figure 4 depicts the EATRs for new investment in tangible assets across various large foreign countries where US multinationals invest. Variations in depreciation schedules and foreign tax rates drive the differences in EATRs. Countries with more generous depreciation regimes, like the UK, exhibit lower EATR regardless of profit shifting, and remain relatively stable. As companies shift profit, the tax liability in the country of investment shrinks, narrowing the gap between countries.

FIGURE 4

Effective Average Tax Rates with Profit Shifting under Pillar 2

Equity-financed tangible assets, 2025



Source: Author's calculations.
Note: EATR = effective average tax rate. The EATRS are a composite of tangible assets, with 50 percent structures and 50 percent equipment.

Table 1 summarizes the average impact of the rest of the world implementing Pillar 2 compared with the current tax regime with no global minimum tax. The figures reported are the average increase in EATRs on new foreign investment, where the weights applied to each foreign country comes are the respective share of foreign direct investment reported by US multinationals. For example, if 10 percent of foreign direct investment by US firms is reported in Germany, it would have a weight of 0.1 in the average EATR change. To calculate the weights, we use data on US Direct Investment Abroad between 2018 and 2022 from the Bureau of Economic Analysis (in the appendix, we present results using data on the share of foreign direct capital expenditures reported by US multinationals by countries instead). The top half of the table reports average change in EATRs for companies that had a GILTI residual liability before the investment and can use all new foreign tax credits. Under Pillar 2, the average EATRs increase between 6.5 percentage points (if none of the new income is shifted to a low-tax jurisdiction) and 12.5 percentage points (when 75 percent of new income generated by the investment is shifted). Based on the GILTI rate in 2026, which is set to increase to 13.125 percent, the average increase ranges from 5.1 percentage points with no profit shifting to 11.2 percentage points when 75 percent of new income is shifted.

Multinationals with no residual GILTI liability who do not shift profit from the new investment are not affected by Pillar 2. But even with 25 percent of profit shifted, the impact is more consequential, with an average increase of 5.1 percentage points in 2025 and 4.4 percentage points in 2026. When 50 to 75 percent

of new income is shifted, the impact is comparable with firms that had a residual GILTI liability, with an increase in EATR between 8.4 and 12.5 percentage points.

As discussed previously, low-tax countries may respond by changing their tax system to lower effective tax rates within Pillar 2 guidelines to attract new investments. Multinational corporations can also respond to minimize their tax liability, and the actual impact of a wide adoption of the minimum tax in the rest of the world would likely have a smaller impact than shown in table 1.

TABLE 1

Average Effect of Pillar 2 on Outbound EATRs

For tangible assets, financed with equity

For companies that use all their foreign tax credits

	Amount of profit shifted			
	0 percent	25 percent	50 percent	75 percent
With GILTI rate of 10.5 percent	6.5%	7.4%	8.8%	12.5%
With GILTI rate of 13.125 percent	5.1%	6.1%	7.5%	11.2%

When investment can generate excess foreign tax credits

	Amount of profit shifted			
	0 percent	25 percent	50 percent	75 percent
With GILTI rate of 10.5 percent	0.1%	5.1%	8.4%	12.5%
With GILTI rate of 13.125 percent	0.0%	4.4%	7.3%	11.2%

Source: Author's calculations.
Notes: EATR = effective average tax rate. The EATRS are a composite of tangible assets, with 50 percent structures and 50 percent equipment. The average EATR is weighted by total (unadjusted) average foreign direct investment between 2018 and 2022 in each foreign country of investment from the Bureau of Economic Analysis The GILTI rate of 13.125 corresponds to the new statutory GILTI rate in 2026. The top half of the table assumes that all foreign tax credits except for additional taxes imposed by the global minimum tax generated by the new investment under the GILTI regime can be used against other GILTI liability. The bottom half of the table implies that foreign tax credits generated by the new investment only cover GILTI taxes generated by the new investment as well.

IMPACT OF ILLUSTRATIVE INTERNATIONAL TAX REFORMS ON TAX BURDENS

In this section, we present results on the impact of three different reforms to the current GILTI regime. The first reform keeps the current features of the GILTI regime but estimates the GILTI liability on a country-by-country basis. The second reform, which we call modest, slightly increases the GILTI tax rate and changes the deductions to align with Pillar 2, while reducing the haircut to foreign tax credits. Finally, the last reform, which we call broad, increases the GILTI tax rate to 21 percent, removes all deductions, and removes the foreign tax credit haircut.

1. Current GILTI regime but with country-by-country tax liability
2. Modest GILTI reform
    a. Country-by-country tax liability

b. 14.125 percent GILTI tax rate (32.5 percent GILTI deduction with a 21 percent corporate income tax)
c. 10 percent deduction for tangible assets and 5 percent deduction for payroll
d. 95 percent foreign taxes allowed as foreign tax credits (i.e., 5 percent foreign tax credit haircut)

3. Broad GILTI reform
    a. Country-by-country tax liability
    b. 21 percent GILTI tax rate (no GILTI deduction with a 21 percent corporate income tax)
    c. No deductions for tangible assets and payroll
    d. All foreign taxes allowed as foreign tax credits (no haircut)

Figure 5 (top panel) illustrates the average increase in EATRs from moving to a country-by-country GILTI regime for an investment in tangible assets when a quarter of income is shifted to tax havens (see appendix for the impact of moving to country-by-country when either none or 50 percent of profit is shifted.). The impact on US multinationals with a residual GILTI liability varies significantly across countries and can be substantial, sometimes exceeding 10 percentage points. The increase is strongly correlated with the tax system of the country of investment, since the inability to use excess foreign tax credits results in a larger increase in countries with higher tax burdens. The impact is less pronounced for US multinationals without residual GILTI liability prior to the investment, with an average increase in the EATR of about 4 percentage points in most countries. In countries where foreign taxes are high enough to cover the new GILTI liability generated in that jurisdiction, the increase in EATRs reflects the new GILTI liability in the low-tax jurisdiction where the profit is shifted.

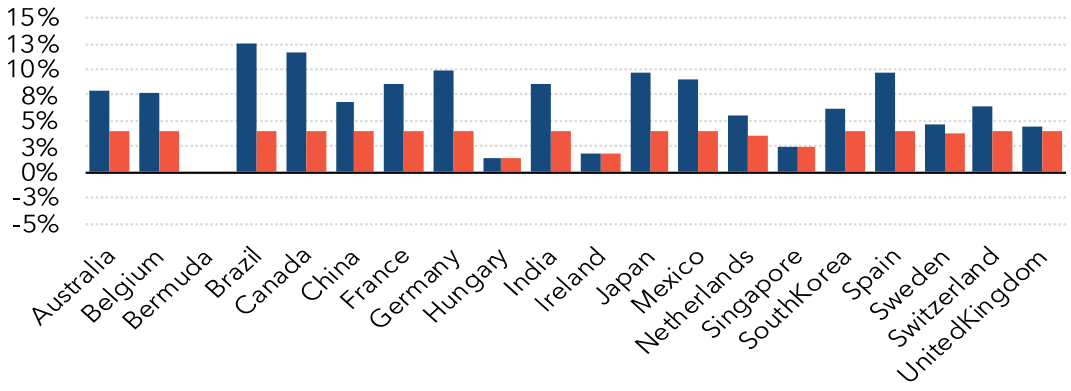
The middle panel illustrates the impact of a modest reform that aligns the US with Pillar 2 and is comparable to figure 5 (the impact of Pillar 2). The bottom panel shows the rise in EATRs from a broad international tax reform that would increase taxes on foreign income for most multinationals and investments and raise revenues. Although the impact in countries with higher tax burdens (e.g., Brazil) is modest, the higher GILTI tax rate of 21 percent substantially increases EATRs for countries with lower tax burdens (e.g., Bermuda or Ireland)

FIGURE 5

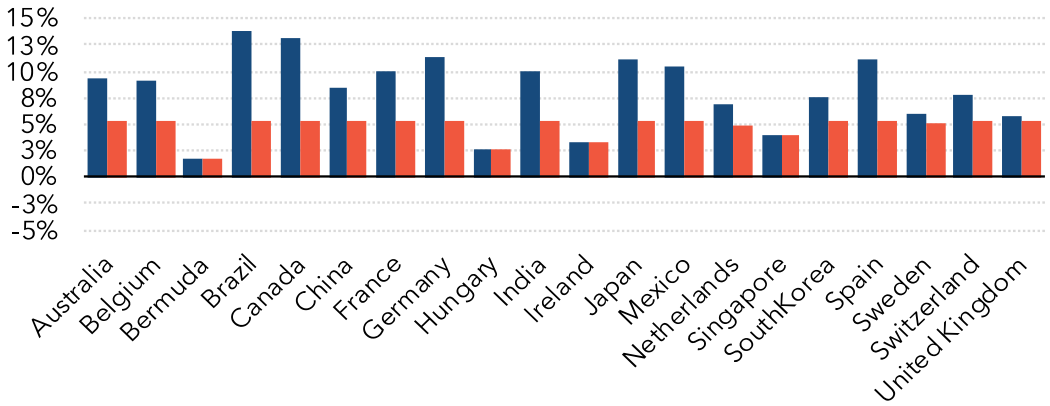
Effect of Illustrative GILTI reforms on Outbound EATRs by Country

25 percent of profit shifted

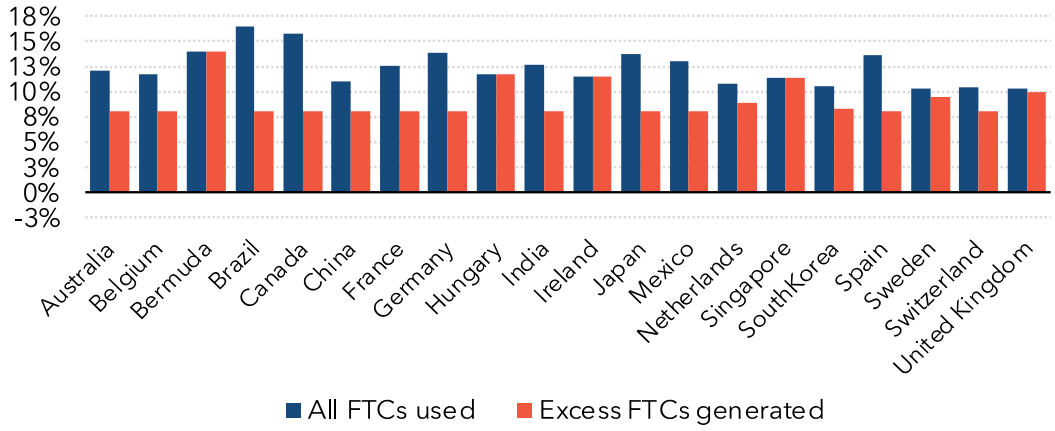
Country-by-country GILTI reform



Modest GILTI reform



Broad GILTI reform



Source: Author's calculations.
Notes: EATR = effective average tax rate; FTC = foreign tax credit. The EATRS are a composite of tangible assets, with 50 percent structures and 50 percent equipment. All FTCs used implies that all foreign tax credits except for additional taxes imposed by the global minimum tax generated by the new investment under the GILTI regime can be used against other GILTI liability. Excess FTCs generated implies that foreign tax credits generated by the new investment only cover GILTI taxes generated by the new investment as well. All panels assume a quarter of new profits are shifted. See texts for details on the tax reforms.

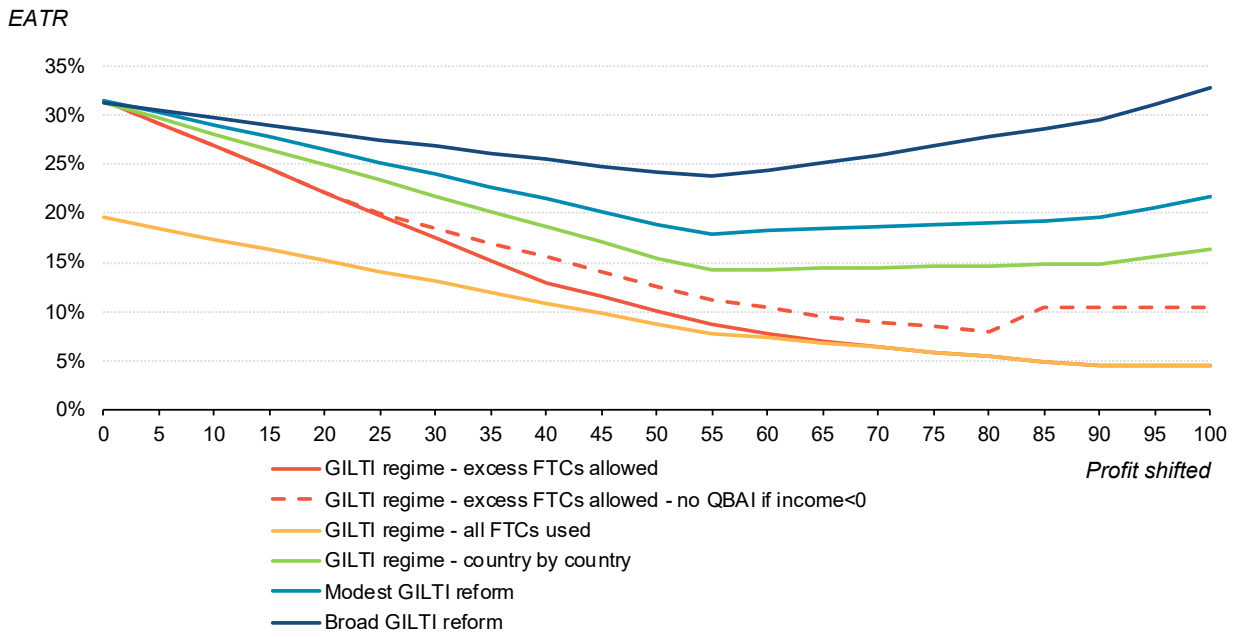
Figure 6 shows EATRs for a new investment in tangible assets in Japan in 2025. Compared to the current regime, any tax reform that moves to country-by-country tax liability increases EATR for US multinationals with a residual GILTI liability, even when they shift no profit, since the multinational can no longer use excess foreign tax credits. Multinationals that did not have a residual GILTI liability would face the same EATRs compared to any reform if they do not shift profit, and higher EATRs as they shift more profit.

Moving to a country-by-country regime substantially increases EATRs when there is a large amount of profit-shifting, because the multinational loses the value of depreciation deduction and the QBAI deduction for tangible assets, when the country of investment has a tested income loss. As a result, there is an amount of profit shifting that minimizes the EATR under any alternative reform that includes moving to a country-by-country regime, as shown by the blue and green lines. In Japan, shifting approximately 55 percent of new income generated from the new investment results in the lowest EATR. The impact of the modest and broad reforms is similar, but the broad reform leads to substantially higher EATRs, regardless of the amount of profit shifted.

FIGURE 6

Comparison of EATRs under GILTI Regime and Alternative Reforms

Equity-financed tangible assets, Japan, 2025



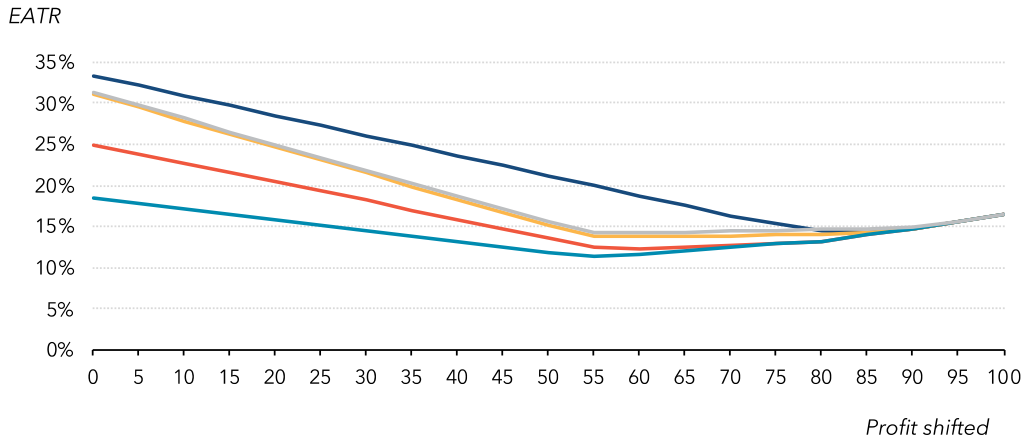
Source: Author's calculations.
Note: EATR = effective average tax rate; GILTI = global intangible low-tax income; QBAI = qualified business asset investment; FTC = foreign tax credit. The EATRS are a composite of tangible assets, with 50 percent structures and 50 percent equipment. When profit shifting implies the income generated by the asset becomes negative, the investment does not benefit from the tangible or payroll deduction. The red line shows the EATRs when FTCs generated by the new investment can only be used against GILTI liability generated by the same investment. The dotted red line further assumes the QBAI is not available when the income generated by the asset invested becomes negative in the country of investment after deductions. The yellow line represents EATRs when all the FTCs generated by the new investment are used against other GILTI liabilities. The green line assumes the current GILTI system but with a country-by-country estimation of tax liability. The light blue and dark blue lines represent the modes and broad GITLI reforms, respectively.

FIGURE 7

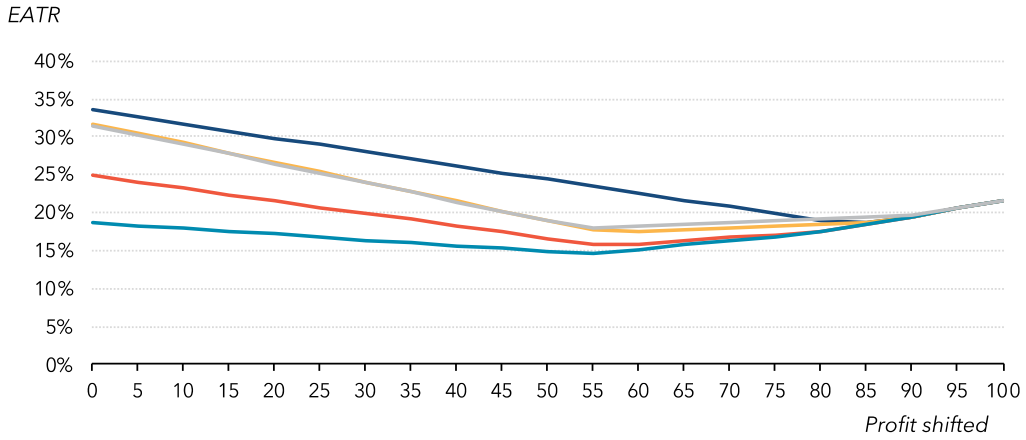
Effect of Illustrative GILTI reforms on Outbound EATRs by Profit Shifted

Equity-financed tangible assets, 2025

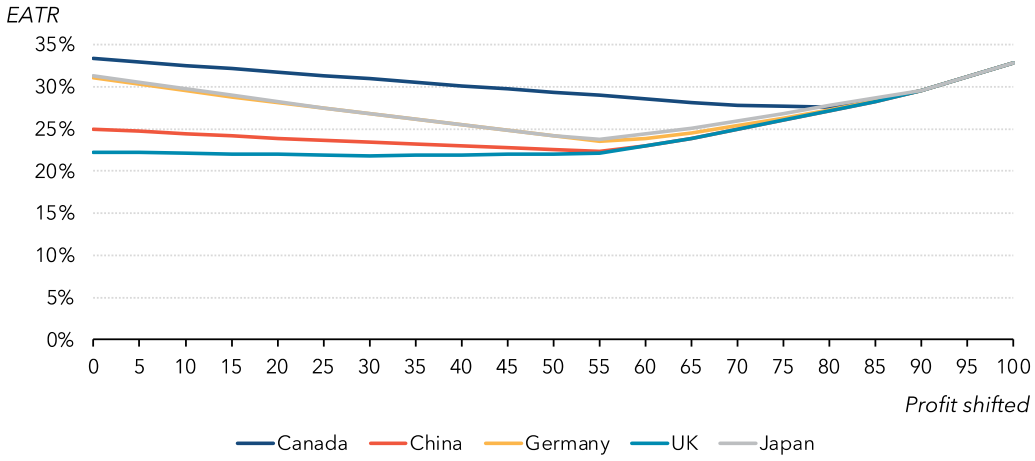
Country-by-country GILTI reform



Modest GILTI reform



Broad GILTI reform



Source: Author's calculations.
Note: EATR = effective average tax rate. The equity financed EATRs are a composite of tangible assets, with 50 percent structures and 50 percent equipment. See text for details on the various GILTI reforms.

Figure 7 (top panel) depicts EATRs for new investments in five different countries under the current GILTI regime with a country-by-country liability. The pattern resembles that observed under Pillar 2, with slightly lower EATRs across the board due to the lower GILTI rate.

Figure 7 (middle panel) illustrates EATRs for new investments in five different countries under the modest reform. The pattern closely resembles that observed under Pillar 2, which is expected given that the modest reform closely follows Pillar 2 principles. Figure 9 highlights the impact on investments across countries and is comparable to figure 5.

Figure 7 (bottom panel) displays the EATRs under a broad tax reform. Because of the 21 percent tax rate, the GILTI liability from shifted income is substantial, and profit shifting only slightly lowers EATRs. In some countries with relatively high corporate tax rates, like the UK, the EATR remains flat regardless of the amount of profit shifted. As with other reforms, EATRs are the lowest when about 55 percent of income is shifted, if shifting income is costless.

Table 2 illustrates the impact of the three reforms on average EATRs for firms with residual GILTI liability that can use all their foreign tax credits, and firms that have excess foreign tax credits (in the appendix, we present results using data on the share of foreign direct capital expenditure reported by US multinationals by countries as weights, instead of foreign direct investment). As in table 1, those estimates are static and rely on the current stock of foreign investments. They are likely upper bounds since they do not incorporate changing behavior by multinationals in response to the new tax system, or changes in countries' tax systems that rely heavily on US investment.

Moving to a country-by-country GILTI regime has no effect on multinationals that do not shift profit but raises the average EATR by an average of 6.4 percentage points for multinationals that had a residual GILTI liability, as they no longer can use excess foreign tax credits. As profit shifting increases, the loss of foreign tax credits decreases, reducing the impact of moving to a country-by-country regime, but the new GILTI tax liability in the jurisdiction where profits are shifted goes up. The impact remains relatively constant for firms that could previously use all their foreign tax credits, regardless of new income shifted. For US multinationals without a residual GILTI liability, the impact on EATRs increases with profit shifting, from no change with no income shifting to an average increase of 5.4 percentage points when half of new income is shifted to tax havens.

The effect of a modest reform is similar to Pillar 2, with minimal impact on investment costs without profit-shifting but increasing EATRs by about 9 percentage points when half of the new income is shifted, for both types of multinationals. Overall, the element of moving to a country-by-country regime drives much of the differences for the modest reform, especially with little or no profit shifting. As profit shifting increases and foreign tax credits decrease, the higher rate and lower deduction have a greater impact on the EATRs.

A broad tax reform with a much higher rate and smaller deduction would significantly increase in tax burdens on foreign investment for all multinationals. Firms without residual GILTI liability that do not shift profit would see an average increase of 3 percentage points, compared with 14 percentage points for those shifting half of new income. A multinational starting with a residual GILTI liability, and no shifting would experience an average EATR increase of over 9 percentage points, compared with a 14.4 percentage increase when half of new income is shifted.

TABLE 2

Average Effect of International Tax Reform in the US on Outbound EATRs

For tangible assets, financed with equity, 2025

Moving to Country-by-Country

	Amount of profit shifted			
	0 percent	25 percent	50 percent	75 percent
All foreign tax credits used	6.4%	5.7%	5.4%	7.4%
Excess foreign tax credits allowed	0.0%	3.4%	4.9%	7.4%

Small reform

	Amount of profit shifted			
	0 percent	25 percent	50 percent	75 percent
All foreign tax credits used	6.6%	7.1%	8.2%	11.6%
Excess foreign tax credits allowed	0.2%	4.8%	7.7%	11.6%

Broad reform

	Amount of profit shifted			
	0 percent	25 percent	50 percent	75 percent
All foreign tax credits used	9.3%	11.8%	14.4%	20.1%
Excess foreign tax credits allowed	3.0%	9.5%	14.0%	20.1%

Source: Author's calculations.
Notes: EATR = effective average tax rate. The EATRS are a composite of tangible assets, with 50 percent structures and 50 percent equipment. The average EATR is weighted by total (unadjusted) average foreign direct investment between 2018 and 2022 in each foreign country of investment from the Bureau of Economic Analysis. Moving to country-by-country assumes the current 2025 GILTI regime, but the GILTI tax liability is computed in each country where a multinational reports profit. The modest tax reform consists of a GILTI statutory tax rate of 15.75 percent, 95 percent of foreign taxes allowed as foreign tax credits (5 percent haircut), and deductions equivalent to 5 percent of depreciable tangible assets and 5 percent of payroll. The broad international tax reform, which follows consists of a GILTI statutory rate of 21 percent, 95 percent of foreign taxes allowed as foreign tax credits (5 percent haircut), and no deductions for tangible assets or payroll.

OPTIMAL PROFIT SHIFTING UNDER PILLAR 2 AND PROPOSED INTERNATIONAL TAX REFORMS

When calculating effective average tax rates, we included a component that captures the cost of shifting income from the investment country to low-tax jurisdictions. We modeled the shifting cost from equation 5 following traditional approaches, like Hines and Rice (1994), where the cost increases non-linearly depending on the amount shifted. In this context, we assume that the cost is equal to $\eta = a * (profit * share\ shifted)^2$, where a is a variable shifting cost parameter, and the total cost increases quadratically depending on the amount of income shifted.

There is no closed-form solution that optimizes profit-shifting. To determine the optimal amount of profit shifted for investments in tangible assets, we generate EATRs based on changing cost a, and find the amount of income shifting that minimizes the EATR for each value of the parameter a. Figure 11 illustrates the optimal profit shifted for an investment in tangible assets in Germany under various scenarios: the current GILTI regime (both for firms with and without a residual GILTI liability prior to the investment), Pillar 2, a country-by-country GILTI regime, and a broad international tax reform.

When shifting is costless, the optimal amount of profit shifted under the current GILTI regime is very large. Multinationals can reduce their foreign tax liability to zero without generating additional GILTI tax liability. If the QBAI deduction is disallowed, the maximum amount would be slightly lower but still above 70 percent. As shifting costs increase, optimal profit-shifting decreases, as US multinationals would never shift profit above the amount where tax savings equal shifting costs. The optimal amount shifted decreases faster for firms that can use all their tax credits, since the tax savings are only 20 percent of the savings for a multinational that have excess foreign tax credits.

Under a country-by-country regime, optimal profit shifting is typically lower compared to firms without a residual GILTI liability in the current system, because a multinational cannot use excess credits in the country of investment against new GILTI liability where income is shifted, which lowers the marginal benefit of shifting. Optimal profit shifting is lower for firms with a GILTI liability under the current system, as they benefit from shifting only by reducing the haircut on foreign tax credits. Coincidentally, it follows closely optimal shifting under Pillar 2 (and the modest reform, which is not depicted in the figure). The benefits of shifting under Pillar 2 come from the difference between the reduction in tax liability in the country of investment, and the new liability. A broad international tax reform would further reduce optimal profit shifting as the higher GILTI rate lowers potential tax savings.

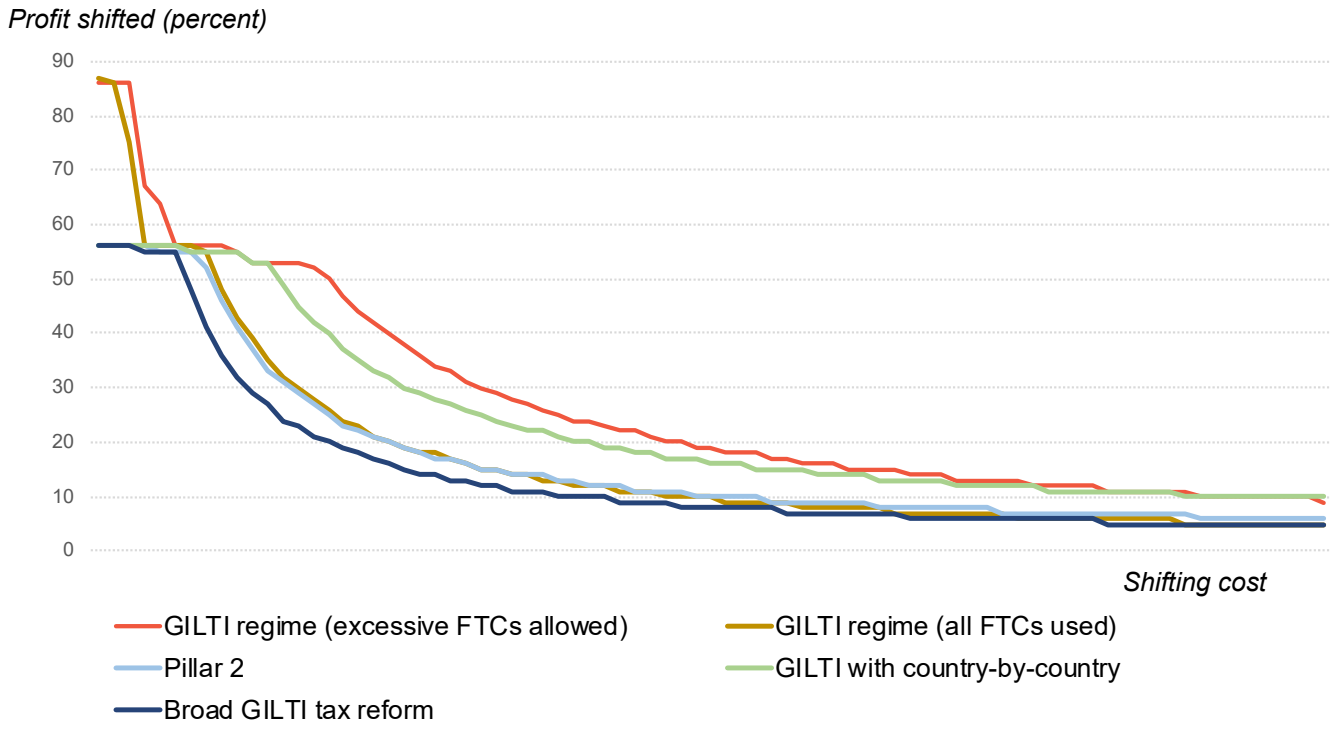
The optimal amount of profit shifted ultimately depends on the tax burden in the investment country, since the benefit from profit shifting comes from lowering this burden. In countries with lower tax rates or more

generous deductions, the optimal amount of income shifting for a given cost will be lower than shown in figure 12. Conversely, a country with a much larger tax burden would likely have a higher optimal shifting amount.

This analysis provides insights into how various reforms would curb profit-shifting incentives and behavior. When there is no cost, there is little practical differences between Pillar 2 and the broad reform. When costs are low but non-zero, the broad reform is most impactful at lowering profit-shifting, although Pillar 2 and the modest reform are quite effective as well, compared to the current GILTI regime. Finally, as costs grow, there is little differences between the modest reform, Pillar 2, and the broad reform.

FIGURE 8

Optimal Profit Shifting of New Investments under Various Policies



Source: Author's calculations.
Notes: We estimate the optimal profit shifted across depending on shifting costs using a stylized assumption on the cost of shifting profit as described in text. The shifting cost is illustrative and used to compare optimal shifting across different regimes.

CONCLUSION

This report discusses the implementation of the global minimum tax of 15 percent in the Tax Policy Center's international investment and capital model. It explores how the new model can capture various changes in the taxation of foreign income of US multinationals and their subsequent impact on foreign investment incentives. The analysis demonstrates how Pillar 2 will affect the taxation of new investments by US multinationals and compares firms with a residual GILTI liability in the current system, assuming they can use all their foreign tax credits, with firms without a residual GILTI liability, for which a new investment can generate excess foreign tax credits.

The implementation of Pillar 2 globally is expected to significantly increase the tax burdens on many U.S. multinationals, particularly those engaging in profit-shifting or reporting income in low-tax jurisdictions. However, not all corporations will be equally affected.

Pillar 2 effectively targets low-tax income reported in tax havens, raising effective average tax rates (EATRs) for U.S. multinationals with residual GILTI liability. For these corporations, EATRs could increase by an average of 6.5 percentage points if no new income is shifted. The imposition of the 15 percent minimum tax under Pillar 2 further curtails profit-shifting incentives, leading to even larger EATR increases—up to 8.8 percentage points when half of new income is shifted. Conversely, multinationals with excess foreign tax credits that shift little or no income will experience minimal increases in their EATRs, averaging 3.6 percentage points when only a quarter of new profits are shifted.

Our analysis confirms that Pillar 2 achieves its intended goal: U.S. multinationals that rely heavily on profit-shifting or operate in low-tax jurisdictions will face higher tax burdens, while those engaging in limited profit-shifting will see little impact. Transitioning to a country-by-country GILTI system represents a critical step toward reducing profit-shifting incentives without substantially affecting multinationals that do not report significant income in low-tax jurisdictions.

Two illustrative GILTI reforms highlight potential impacts:

1. Modest Reform: A country-by-country system with a GILTI rate increase to 14.125 percent, a foreign tax credit allowance of 95 percent, and a payroll deduction of 5 percent would align closely with Pillar 2 while limiting the tax burden on new investments in tangible assets.
    - EATRs on tangible investments would rise between 6.6 and over 10 percentage points for firms with current GILTI liability.
    - Companies with excess foreign tax credits would experience minimal impact unless substantial profit-shifting occurs.

2. Broad Reform: A country-by-country system with a GILTI rate increase to 21 percent, a foreign tax credit allowance of 95 percent, and the removal of all deductions would significantly increase tax burdens on almost all foreign investments and generate substantially more revenue than the current system. However, multinationals investing in high-tax countries with excess foreign tax credits would see little change in their EATR

Overall, both reforms reduce optimal profit-shifting for new investments, with the broad reform achieving slightly greater reductions but at the cost of higher EATRs across the board. In conclusion, Pillar 2 and associated GILTI reforms represent meaningful steps toward curbing profit-shifting while balancing the impact on multinational corporations' tax burdens.

Table A.1

Wage-Capital Ratio and Value of Payroll Deductions

Country	Wage-capital ratio	Payroll deduction of 5 percent (for $100 investment)	Total value of deductions under Pillar 2 (for $100 investment)
Argentina	41.7%	2.08	7.08
Australia	36.2%	1.81	6.81
Austria	73.0%	3.65	8.65
Belgium	62.1%	3.11	8.11
Bermuda	19.0%	0.95	5.95
Brazil	38.2%	1.91	6.91
Bulgaria	19.7%	0.98	5.98
Canada	35.9%	1.80	6.80
Cayman Islands	13.9%	0.69	5.69
Chile	17.4%	0.87	5.87
China	49.2%	2.46	7.46
Colombia	41.8%	2.09	7.09
Croatia	70.0%	3.50	8.50
Czech Republic	59.0%	2.95	7.95
Denmark	75.0%	3.75	8.75
Estonia	73.9%	3.69	8.69
Finland	78.5%	3.92	8.92
France	103.2%	5.16	10.16
Germany	94.6%	4.73	9.73
Greece	62.9%	3.14	8.14
Hong Kong	128.6%	6.43	11.43
Hungary	53.1%	2.66	7.66
Iceland	10.1%	0.51	5.51
India	129.8%	6.49	11.49
Indonesia	8.4%	0.42	5.42
Ireland	19.7%	0.98	5.98
Israel	57.2%	2.86	7.86
Italy	80.4%	4.02	9.02
Japan	74.5%	3.72	8.72
Jersey	4.9%	0.25	5.25
Lithuania	31.3%	1.57	6.57
Luxembourg	17.2%	0.86	5.86
Mexico	33.6%	1.68	6.68
Netherlands	62.0%	3.10	8.10
New Zealand	49.0%	2.45	7.45
Norway	38.1%	1.91	6.91
Poland	47.5%	2.38	7.38
Portugal	52.8%	2.64	7.64
Romania	41.6%	2.08	7.08
Russia	38.9%	1.94	6.94
Saudi Arabia	54.3%	2.71	7.71
Serbia	28.1%	1.40	6.40
Singapore	39.4%	1.97	6.97
Slovakia	72.3%	3.62	8.62
Slovenia	41.2%	2.06	7.06
South Africa	49.8%	2.49	7.49
South Korea	47.9%	2.40	7.40
Spain	68.5%	3.42	8.42
Sweden	86.8%	4.34	9.34
Switzerland	89.1%	4.46	9.46
Turkey	79.1%	3.96	8.96
Ukraine	57.2%	2.86	7.86
United Kingdom	86.3%	4.32	9.32

Source: Author's calculations.

Notes: We estimated the wage-capital ratio by dividing wages by reported net property from US multinationals from the Bureau of Economic Analysis. We calculated the ratio each year and report the average between 2018 and 2022.

TABLE A.2

Average Effect of Pillar 2 on Outbound EATRs – Capex weighting

For tangible assets, financed with equity

For companies that use all their foreign tax credits

	Amount of profit shifted			
	0 percent	25 percent	50 percent	75 percent
With GILTI rate of 10.5 percent	8.9%	9.3%	9.9%	13.0%
With GILTI rate of 13.125 percent	7.6%	8.1%	8.6%	11.8%

When investment can generate excess foreign tax credits

	Amount of profit shifted			
	0 percent	25 percent	50 percent	75 percent
With GILTI rate of 10.5 percent	0.0%	5.5%	9.2%	13.0%
With GILTI rate of 13.125 percent	0.0%	5.1%	8.3%	11.8%

Source: Author's calculations.
Notes: EATR = effective average tax rate. See table 1 for details. The weights to derive the average EATRs are the share of foreign capital expenditures in each country between 2018 and 2022.

TABLE A.3

Average Effect of International Tax Reform in the US on Outbound EATRs – Capex weighting

For tangible assets, financed with equity, 2025

Moving to Country-by-Country

	Amount of profit shifted			
	0 percent	25 percent	50 percent	75 percent
All foreign tax credits used	8.9%	7.6%	6.4%	7.8%
Excess foreign tax credits allowed	0.0%	3.7%	5.7%	7.8%

Small reform

	Amount of profit shifted			
	0 percent	25 percent	50 percent	75 percent
All foreign tax credits used	8.9%	9.0%	9.2%	12.0%
Excess foreign tax credits allowed	0.1%	5.2%	8.5%	12.0%

Broad reform

	Amount of profit shifted			
	0 percent	25 percent	50 percent	75 percent
All foreign tax credits used	10.4%	12.6%	15.0%	20.4%
Excess foreign tax credits allowed	1.5%	8.8%	14.3%	20.4%

Source: Author's calculations.
Notes: EATR = effective average tax rate. See Table 2 notes for additional details. The weights used are similar to table A2.

Table A.4

EATRs for Equity-Financed Tangible Assets by Country

No profit shifting, 2025

Country	Pillar 2	Illustrative GILTI Reforms			Current Regime	
		Country-by-Country liability	Modest GILTI Reform	Broad GILTI Reform	All FTCs Used	Excess FTCs Allowed
Argentina	36.6%	36.6%	36.6%	36.6%	21.4%	36.6%
Australia	28.2%	28.2%	28.2%	28.2%	18.0%	28.2%
Austria	24.8%	24.8%	24.8%	24.8%	16.9%	24.8%
Belgium	27.3%	27.3%	27.3%	27.3%	17.5%	27.3%
Bermuda	8.5%	6.8%	12.1%	20.8%	6.8%	6.8%
Brazil	37.7%	37.7%	37.7%	37.7%	21.5%	37.7%
Bulgaria	9.0%	11.1%	14.0%	21.2%	10.5%	10.5%
Canada	33.5%	33.5%	33.5%	33.5%	20.4%	33.5%
Cayman Islands	8.8%	6.8%	12.3%	20.8%	6.8%	6.8%
Chile	29.6%	29.6%	29.6%	29.6%	18.8%	29.6%
China	24.8%	24.8%	24.8%	24.8%	16.8%	24.8%
Colombia	29.6%	29.6%	29.6%	29.6%	18.4%	29.6%
Croatia	14.8%	14.8%	14.9%	21.5%	12.7%	14.8%
Czech Republic	17.4%	17.4%	17.4%	21.7%	13.8%	17.4%
Denmark	21.0%	21.0%	21.0%	21.8%	15.3%	21.0%
Estonia	32.4%	32.4%	32.4%	32.4%	20.3%	32.4%
Finland	18.9%	18.9%	18.9%	21.7%	14.5%	18.9%
France	29.5%	29.5%	29.5%	29.5%	18.4%	29.5%
Germany	31.7%	31.7%	31.7%	31.7%	19.5%	31.7%
Greece	28.2%	28.2%	28.2%	28.2%	18.1%	28.2%
Hong Kong	14.3%	14.3%	14.3%	21.5%	12.6%	14.3%
Hungary	10.9%	12.0%	13.7%	21.3%	11.4%	11.4%
Iceland	18.7%	18.7%	18.7%	21.7%	14.4%	18.7%
India	28.8%	28.8%	28.8%	28.8%	18.2%	28.8%
Indonesia	25.8%	25.8%	25.8%	25.8%	17.2%	25.8%
Ireland	12.2%	12.6%	14.6%	21.4%	11.8%	12.2%
Israel	24.3%	24.3%	24.3%	24.3%	16.7%	24.3%
Italy	27.5%	27.5%	27.5%	27.5%	18.0%	27.5%
Japan	31.5%	31.5%	31.5%	31.5%	19.5%	31.5%
Jersey	9.2%	6.8%	12.7%	20.8%	6.8%	6.8%
Lithuania	12.6%	12.9%	14.5%	21.4%	11.8%	12.6%
Luxembourg	18.4%	18.5%	19.5%	22.8%	14.1%	18.4%
Mexico	29.8%	29.8%	29.8%	29.8%	18.6%	29.8%
Netherlands	22.5%	22.5%	22.5%	23.2%	16.0%	22.5%
New Zealand	29.2%	29.2%	29.2%	29.2%	18.7%	29.2%
Norway	22.0%	22.0%	22.0%	22.3%	15.8%	22.0%
Poland	19.7%	19.7%	19.7%	21.8%	14.9%	19.7%
Portugal	22.1%	22.1%	22.1%	22.1%	15.7%	22.1%
Romania	15.1%	15.1%	15.1%	21.5%	13.1%	15.1%
Saudi Arabia	19.7%	19.7%	19.7%	21.8%	14.8%	19.7%
Serbia	22.9%	22.9%	22.9%	25.4%	16.4%	22.9%
Singapore	14.8%	14.8%	14.9%	21.5%	12.8%	14.8%
Slovakia	22.4%	22.4%	22.4%	22.6%	16.2%	22.4%
Slovenia	18.0%	18.0%	18.0%	21.7%	14.2%	18.0%
South Africa	24.8%	24.8%	24.8%	24.8%	16.7%	24.8%
South Korea	24.4%	24.4%	24.4%	24.4%	16.5%	24.4%
Spain	31.4%	31.4%	31.4%	31.4%	19.5%	31.4%
Sweden	19.6%	19.6%	19.6%	21.8%	14.8%	19.6%
Switzerland	24.4%	24.4%	24.4%	24.4%	16.5%	24.4%
Turkey	21.2%	21.2%	21.2%	22.0%	15.5%	21.2%
United Kingdom	18.6%	18.6%	18.6%	21.7%	14.4%	18.6%

Source: Author's calculations.
Notes: Tangible asset is 50 percent equipment and 50 percent structures. Investments are financed with retained earnings (equity) based on year 2025.

Table A.5

EATRs for Equity-Financed Tangible Assets by Country

25 percent shifting, 2025

Country		Illustrative GILTI Reforms			Current Regime	
	Pillar 2	Country-by-Country liability	Modest GILTI Reform	Broad GILTI Reform	All FTCs Used	Excess FTCs Allowed
Argentina	29.0%	27.3%	29.3%	31.3%	15.2%	23.3%
Australia	22.5%	20.8%	22.8%	24.8%	12.7%	16.8%
Austria	20.9%	19.2%	21.2%	23.2%	12.5%	15.2%
Belgium	21.7%	20.0%	22.0%	24.0%	12.3%	16.0%
Bermuda	9.2%	6.8%	12.1%	20.8%	6.8%	6.8%
Brazil	29.1%	27.4%	29.4%	31.4%	14.9%	23.4%
Bulgaria	10.9%	9.3%	13.2%	21.0%	8.7%	8.7%
Canada	29.2%	27.5%	29.5%	31.5%	15.8%	23.5%
Cayman Islands	9.4%	6.8%	12.3%	20.8%	6.8%	6.8%
Chile	25.0%	23.3%	25.3%	27.3%	14.1%	19.3%
China	21.0%	19.3%	21.3%	23.4%	12.4%	15.3%
Colombia	22.8%	21.1%	23.1%	25.1%	12.6%	17.0%
Croatia	13.7%	11.9%	13.9%	21.2%	9.5%	9.5%
Czech Republic	15.8%	14.1%	16.1%	21.3%	10.5%	10.8%
Denmark	18.3%	16.6%	18.6%	21.4%	11.4%	12.6%
Estonia	30.0%	28.3%	30.3%	32.3%	16.6%	24.3%
Finland	17.0%	15.3%	17.3%	21.4%	11.0%	11.5%
France	23.0%	21.3%	23.3%	25.3%	12.8%	17.3%
Germany	25.6%	23.9%	25.9%	27.9%	14.0%	19.9%
Greece	23.2%	21.5%	23.5%	25.5%	13.2%	17.5%
Hong Kong	13.8%	12.0%	14.0%	21.2%	9.7%	9.7%
Hungary	12.5%	10.8%	13.0%	21.1%	9.4%	9.4%
Iceland	16.8%	15.1%	17.1%	21.3%	10.9%	11.5%
India	23.4%	21.7%	23.7%	25.7%	13.1%	17.7%
Indonesia	22.0%	20.3%	22.3%	24.3%	12.8%	16.3%
Ireland	13.2%	11.5%	14.0%	21.2%	9.6%	9.6%
Israel	21.3%	19.5%	21.5%	23.5%	12.7%	15.5%
Italy	23.1%	21.4%	23.4%	25.4%	13.3%	17.4%
Japan	25.5%	23.8%	25.8%	27.8%	14.1%	19.8%
Jersey	9.6%	6.8%	12.7%	20.8%	6.8%	6.8%
Lithuania	12.6%	10.9%	13.5%	21.1%	9.2%	9.2%
Luxembourg	15.5%	13.7%	17.1%	21.8%	9.5%	11.3%
Mexico	24.1%	22.4%	24.4%	26.4%	13.3%	18.4%
Netherlands	18.7%	17.0%	19.0%	22.3%	11.5%	13.4%
New Zealand	24.3%	22.5%	24.6%	26.6%	13.7%	18.5%
Norway	19.4%	17.6%	19.6%	21.9%	11.9%	13.6%
Poland	18.1%	16.4%	18.4%	21.5%	11.5%	12.4%
Portugal	18.5%	16.8%	18.8%	21.4%	11.4%	12.8%
Romania	14.7%	13.0%	15.0%	21.2%	10.2%	10.3%
Saudi Arabia	17.8%	16.1%	18.1%	21.4%	11.3%	12.1%
Serbia	22.9%	21.2%	23.2%	26.7%	13.8%	17.2%
Singapore	14.1%	12.3%	14.4%	21.2%	9.8%	9.8%
Slovakia	20.2%	18.4%	20.4%	22.4%	12.5%	14.4%
Slovenia	16.5%	14.7%	16.7%	21.3%	10.8%	11.4%
South Africa	19.9%	18.1%	20.1%	22.3%	11.7%	14.1%
South Korea	19.6%	17.9%	19.9%	22.2%	11.6%	13.9%
Spain	25.4%	23.7%	25.7%	27.7%	14.1%	19.7%
Sweden	17.4%	15.6%	17.6%	21.4%	11.1%	11.9%
Switzerland	20.0%	18.3%	20.3%	22.3%	11.9%	14.3%
Turkey	18.5%	16.8%	18.8%	21.6%	11.6%	13.0%
United Kingdom	17.1%	15.4%	17.4%	21.4%	11.0%	11.4%

Source: Author's calculations.

Notes: Tangible asset is 50 percent equipment and 50 percent structures. Investments are financed with retained earnings (equity) based on year 2025.

Table A.6

EATRs for Equity-Financed tangible Assets by Country

50 percent shifting, 2025

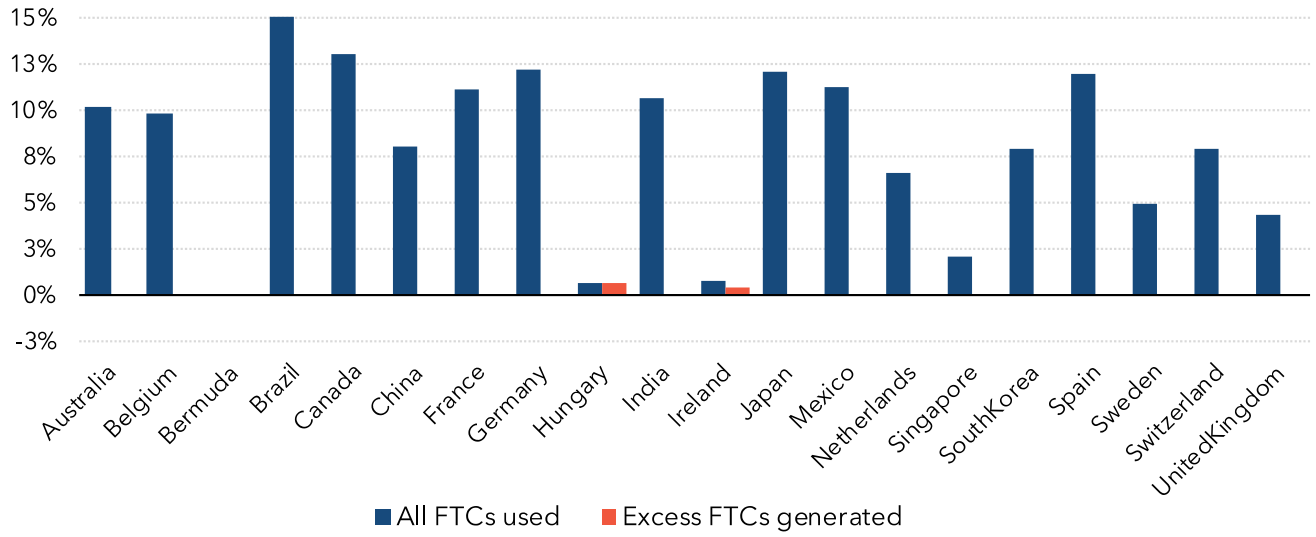
Country	Pillar 2	Illustrative GILTI Reforms			Current Regime	
		Country-by-Country liability	Modest GILTI Reform	Broad GILTI Reform	All FTCs Used	Excess FTCs Allowed
Argentina	21.3%	17.9%	21.9%	25.9%	9.1%	11.1%
Australia	17.0%	13.6%	17.6%	21.8%	7.6%	8.2%
Austria	17.1%	13.7%	17.7%	21.7%	8.1%	8.4%
Belgium	16.1%	12.7%	16.7%	21.0%	7.1%	7.2%
Bermuda	11.6%	8.0%	13.4%	20.8%	6.8%	6.8%
Brazil	20.6%	17.1%	21.1%	25.1%	8.3%	10.0%
Bulgaria	13.3%	9.9%	13.9%	20.9%	7.2%	7.2%
Canada	25.0%	21.6%	25.6%	29.6%	11.2%	13.6%
Cayman Islands	11.8%	8.0%	13.5%	20.8%	6.8%	6.8%
Chile	20.4%	17.0%	21.0%	25.0%	9.3%	9.9%
China	17.2%	13.8%	17.8%	22.2%	8.0%	8.0%
Colombia	17.2%	13.7%	17.7%	21.9%	7.3%	8.2%
Croatia	13.9%	10.5%	14.5%	20.9%	6.9%	6.9%
Czech Republic	14.7%	11.3%	15.3%	20.9%	7.3%	7.3%
Denmark	15.7%	12.2%	16.2%	21.0%	7.6%	7.6%
Estonia	27.6%	24.2%	28.2%	32.2%	12.8%	16.2%
Finland	15.1%	11.7%	15.7%	21.0%	7.4%	7.4%
France	17.0%	13.5%	17.6%	21.8%	7.3%	8.1%
Germany	19.5%	16.1%	20.1%	24.1%	8.6%	9.6%
Greece	18.3%	14.8%	18.8%	22.9%	8.2%	8.6%
Hong Kong	14.1%	10.7%	14.7%	20.9%	7.2%	7.2%
Hungary	14.0%	10.6%	14.6%	20.9%	7.5%	7.5%
Iceland	15.2%	11.7%	15.8%	21.0%	7.5%	7.5%
India	18.1%	14.7%	18.7%	22.8%	8.0%	8.2%
Indonesia	18.2%	14.7%	18.7%	23.2%	8.4%	8.4%
Ireland	14.1%	10.7%	14.7%	21.1%	7.4%	7.4%
Israel	18.2%	14.8%	18.8%	22.9%	8.6%	8.6%
Italy	18.7%	15.3%	19.3%	23.3%	8.6%	9.3%
Japan	19.6%	16.1%	20.1%	24.1%	8.7%	10.0%
Jersey	12.0%	8.0%	13.7%	20.8%	6.8%	6.8%
Lithuania	13.2%	9.8%	13.8%	20.9%	6.8%	6.8%
Luxembourg	16.3%	12.9%	16.9%	21.1%	7.6%	7.7%
Mexico	18.4%	14.9%	18.9%	22.9%	8.0%	8.5%
Netherlands	16.8%	13.4%	17.4%	21.6%	7.9%	8.2%
New Zealand	19.3%	15.9%	19.9%	23.9%	8.8%	9.6%
Norway	16.7%	13.3%	17.3%	21.5%	8.0%	8.0%
Poland	16.6%	13.2%	17.2%	21.9%	8.2%	8.2%
Portugal	15.7%	12.2%	16.2%	21.0%	7.4%	7.4%
Romania	14.9%	11.4%	15.4%	21.0%	7.6%	7.6%
Saudi Arabia	15.9%	12.4%	16.4%	21.2%	7.8%	7.8%
Serbia	22.9%	19.5%	23.5%	28.1%	11.1%	12.1%
Singapore	14.3%	10.8%	14.8%	20.9%	7.2%	7.2%
Slovakia	17.9%	14.4%	18.4%	22.4%	8.8%	9.2%
Slovenia	15.3%	11.9%	15.9%	21.0%	7.6%	7.6%
South Africa	16.3%	12.9%	16.9%	21.1%	7.4%	7.6%
South Korea	16.2%	12.8%	16.8%	21.0%	7.4%	7.5%
Spain	19.5%	16.0%	20.1%	24.1%	8.7%	10.0%
Sweden	15.4%	11.9%	15.9%	21.0%	7.5%	7.5%
Switzerland	16.0%	12.6%	16.6%	21.0%	7.3%	7.4%
Turkey	16.4%	13.0%	17.0%	21.2%	8.0%	8.0%
United Kingdom	15.6%	12.1%	16.1%	21.6%	7.7%	7.7%

Source: Author's calculations.
Notes: Tangible asset is 50 percent equipment and 50 percent structures. Investments are financed with retained earnings (equity) based on year 2025.

FIGURE A.1

Effect of Country-by-Country GILTI Regime on Outbound EATRs by Country

No profit shifting

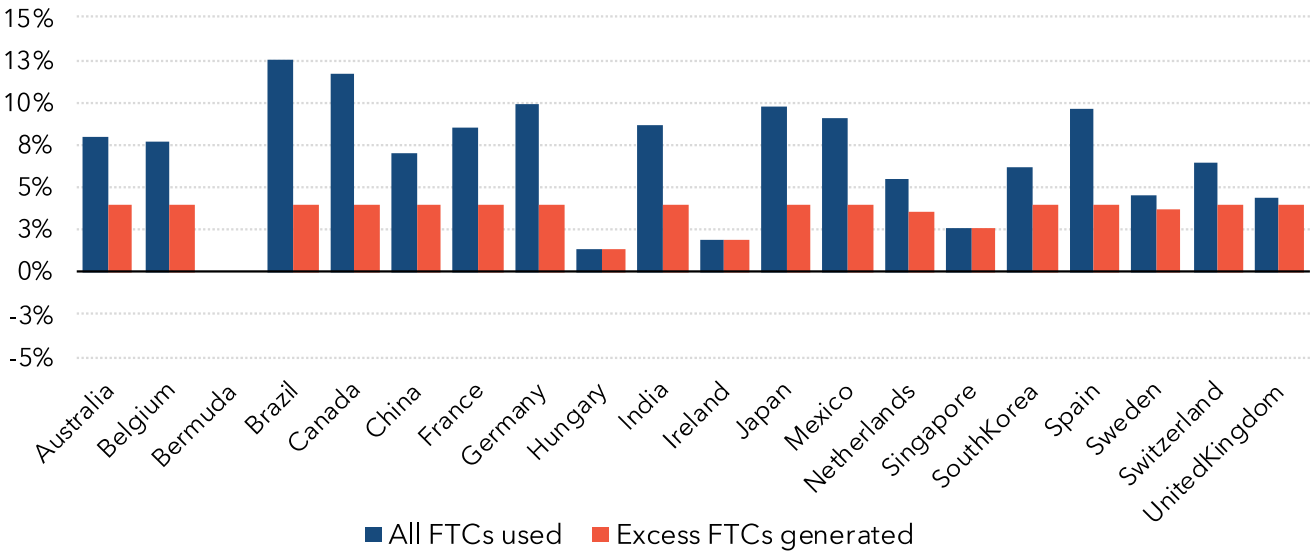


Source: Author's calculations.
Notes: EATR = effective average tax rate; FTC = foreign tax credit. See figure 6 notes for details.

FIGURE A.2

Effect of Country-by-Country GILTI Regime on Outbound EATRs by Country

50 percent of profit shifted

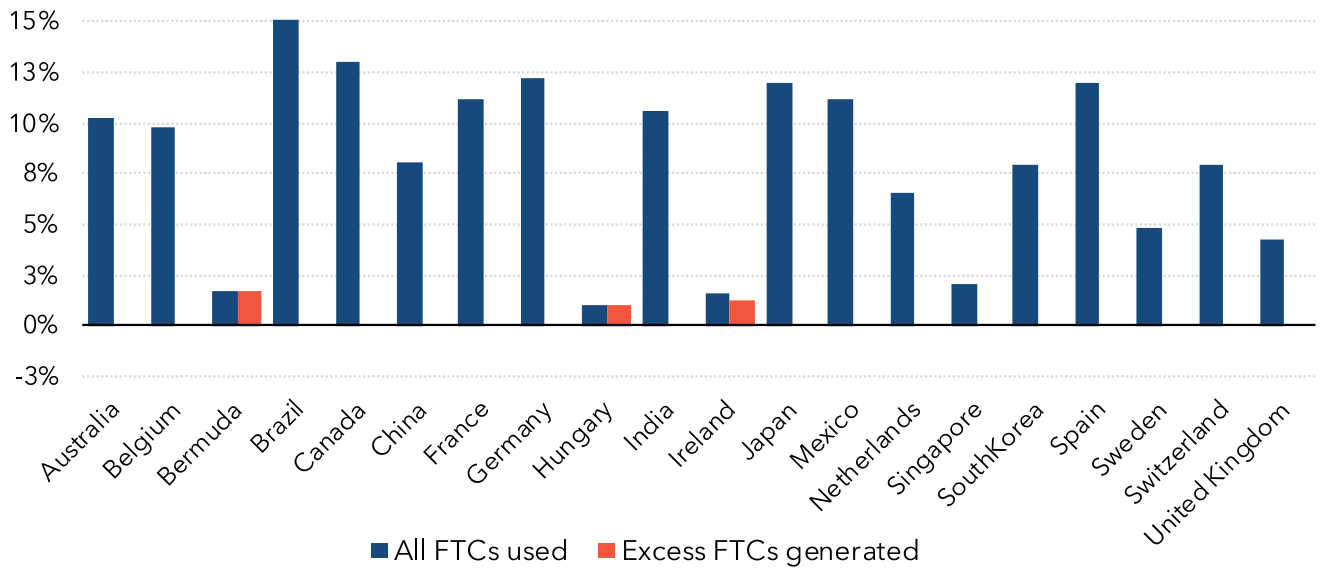


Source: Author's calculations.
Notes: EATR = effective average tax rate; FTC = foreign tax credit. See figure 6 notes for details.

FIGURE A.3

Effect of Modest International Tax Reform on Outbound EATRs by Country

No profit shifting

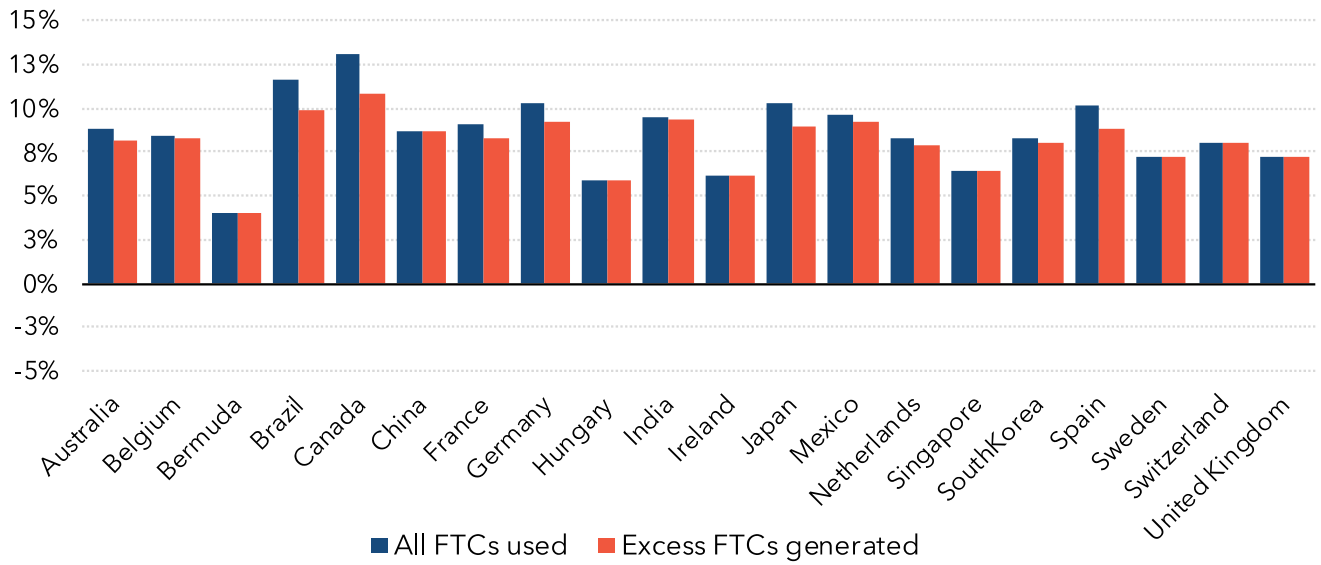


Source: Author's calculations.
Notes: EATR = effective average tax rate; FTC = foreign tax credit. See figure 8 notes for details.

FIGURE A.4

Effect of Modest International Tax Reform on Outbound EATRs by Country

50 percent of profit shifted

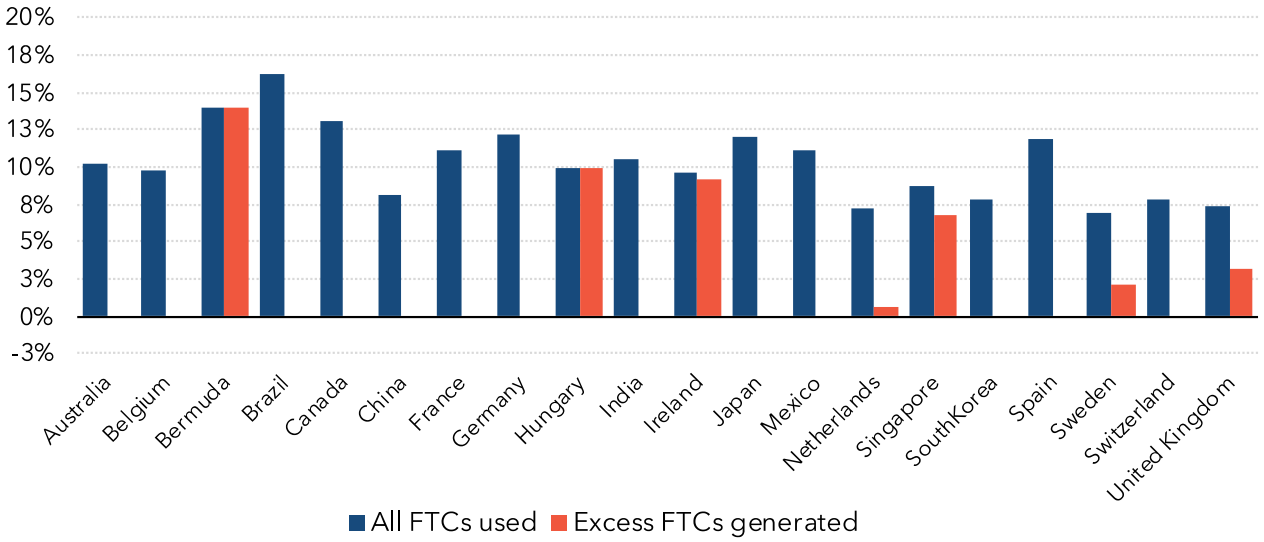


Source: Author's calculations.
Notes: EATR = effective average tax rate; FTC = foreign tax credit. See figure 8 notes for details.

FIGURE A.5

Effect of Broad International Tax Reform on Outbound EATRs by Country

No profit shifting

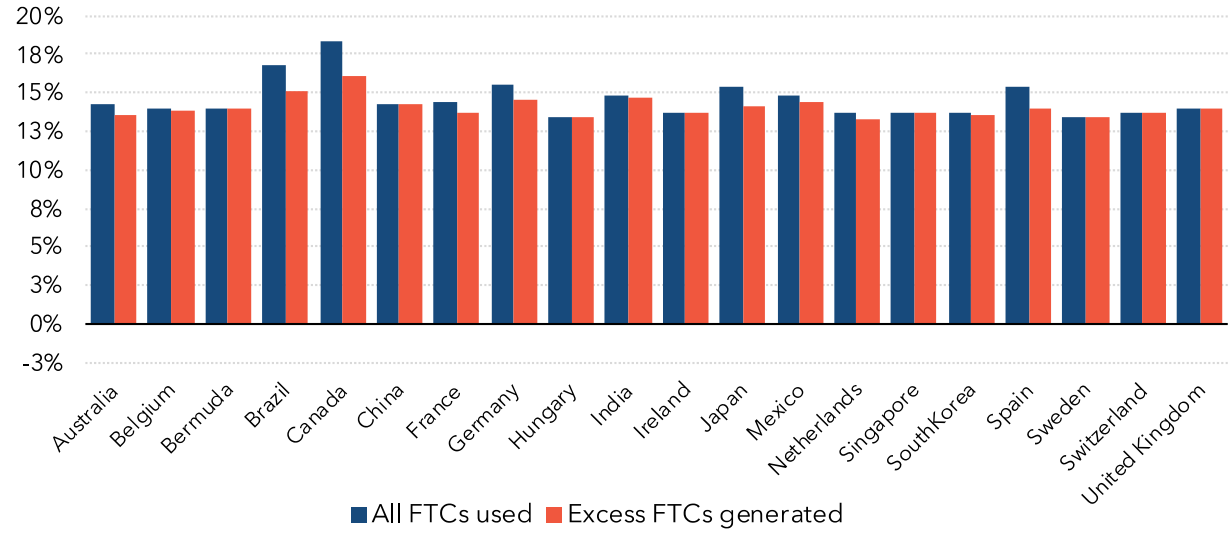


Source: Author's calculations.
Notes: EATR = effective average tax rate; FTC = foreign tax credit. See figure 10 notes for details.

FIGURE A.6

Effect of Broad International Tax Reform on Outbound EATRs by Country

50 percent of profit shifted



Source: Author's calculations.
Notes: EATR = effective average tax rate; FTC = foreign tax credit. See figure 10 notes for details.

NOTES

5 See Brosy (2024) for a more detailed explanation of the GILTI regime.

6 For a short summary of Pillar 1, see https://www.oecd.org/content/dam/oecd/en/topics/policy-issues/cross-border-and-international-tax/pillar-one-amount-a-fact-sheet.pdf.

7 See https://pro.bloombergtax.com/insights/international-tax/oecd-beps-and-the-multilateral-instrument/#oecd-beps-action-plan.

8 See https://wts.com/wts.com/hot-topics/pillar-two/implementation-status/wtsglobal-pillar-two-country-by-country-implementation.pdf.

9 For detailed information about Pillar 2, see: https://www.oecd.org/en/topics/sub-issues/global-minimum-tax/global-anti-base-erosion-model-rules-pillar-two.html.

10 For an updated list of implementations by country, see: https://www.pwc.com/gx/en/services/tax/pillar-two-readiness/country-tracker.html.

11 GILTI Section 78 estimates the amount of paid taxes for FTC purposes using the inclusion percentage. The inclusion percentage is derived by removing the QBAI deduction from tested income. Without any other deductions, the inclusion percentage in our case is 90 percent, and the FTC applies to returns minus the 10 percent deduction.

12 For a detailed discussion of challenges in estimating the Pillar 2 tax base (Globe income), see: https://www.oecd.org/content/dam/oecd/en/topics/policy-sub-issues/global-minimum-tax/tax-challenges-arising-from-the-digitalisation-of-the-economy-global-anti-erosion-model-rules-pillar-two-examples.pdf.

13 We are not endorsing any of these alternatives. We picked those 3 options to illustrate a key difference between the GILTI regime and Pillar 2 rules (country-by-country) tax liability, and to illustrate the impact of a reform that would just align the US with Pillar 2, compared to a reform that would raise substantial amount of revenues.

14 GILTI rules stipulate that only CFCs with positive net tested income can benefit from the QBAI. For tractability, and because many multinationals invest in countries where they already operate, and generate income, we assume that unless stated otherwise, the multinational can always benefit from the QBAI generated by a new investment, even if the net tested income of the underlying asset is negative in the country of investment.

15 And some EATRs for US multinational will fall in-between the red and the yellow line, when a multinational starts with a residual GILTI liability that is smaller than the new foreign tax credits generated.

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ABOUT THE AUTHOR

Thomas Brosy is a senior research associate at the Urban-Brookings Tax Policy Center. He studies business and international taxation, as well as state and local taxes. Brosy works extensively on business tax modeling. His research and writing have covered the impact of state taxation on business dynamism, bonus depreciation, Pillar 1 and 2, the book minimum tax, the buyback excise tax, the relationship between property values and property taxes, commercial property taxes, and federal business and international US tax reforms. Brosy holds a PhD in economics from the University of Michigan, an MS in economics from the University College London, and a BS in economics from the University of Lausanne, Switzerland.

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