

# Corporate Taxes Across Borders

Governments across the globe recently reached agreement in principle on measures to counter the tax avoidance strategies of multinational corporations

**M**icrosoft's Irish subsidiary "Microsoft Round Island One" made an astonishing \$315 billion profit last year — an amount surpassing half of Ireland's GDP. The subsidiary was able to accomplish this without any employees other than its directors. Moreover, it did so without paying any corporate income taxes.

If this sounds like an impressive accomplishment, then welcome to the world of cross-border corporate taxation. Microsoft Round Island One received its income from other Microsoft affiliates, and it avoided paying income taxes due to its hybrid status as a firm registered in Ireland but tax domiciled in Bermuda, which does not levy a corporate income tax. It's just one example of strategies used by multinational corporations to reduce their global tax bills by using technically legal maneuvers that allow them to shift taxable income to affiliates in low-tax jurisdictions.

The details have varied over the years, but the basic idea has remained the same. International tax law allows multinational corporations to place their intellectual property in subsidiaries that reside in low-tax jurisdictions. This move allows a multinational's intellectual property holding subsidiaries to collect royalty fees from the firm's operating subsidiaries that sell goods and services and collect revenue in jurisdictions with relatively high corporate tax rates. The royalty payments serve to shift taxable income away from affiliates in high-tax jurisdictions and toward affiliates in low-tax jurisdictions.

The largest U.S. tech firms have been extremely adept at using sophisticated strategies to reduce their global taxes. Microsoft was one of the early adopters of financial engineering techniques designed to minimize taxes, having begun to establish a complex web of interrelated foreign entities in the 1990s. Since then, tax avoidance strategies have proliferated. U.S. multinationals have drawn the ire of European Union (EU) officials by using

colorfully named strategies — such as the "double Irish with a Dutch sandwich" and the "single malt" — to shift income associated with European sales away from Europe and toward international tax havens. In a similar manner, multinationals have engineered corporate structures that allow them to shift income associated with U.S. sales away from the United States and toward low-tax havens.

The story extends well beyond Microsoft. Amazon, Facebook, Google owner Alphabet, Netflix, and Apple have also been accused of using accounting maneuvers to pay taxes significantly below what they would have otherwise been obligated to pay, based on statutory tax rates.

Recognizing multinationals' ability to shift operations and income across borders, governments across the globe have repeatedly lowered statutory tax rates in a competition to retain and attract corporations as investors and residents. Indeed, statutory tax rates among advanced economies have declined substantially since the 1980s. (See chart.) Economists have mixed

views about the trend. Many see lower corporate income taxes as an unalloyed positive, primarily based on the long-standing argument that the corporate income tax is an inefficient way for governments to raise revenue. In contrast, other economists view the corporate income tax as an indispensable part of the U.S. tax system and believe that the tax cutting trend has become a harmful race to the bottom.

As part of an effort known as the “OECD/G-20 Base Inclusive Framework,” governments around the globe have been working together since 2013 to establish mechanisms for countering multinational income shifting and tax avoidance. Until recently, an agreement appeared elusive, and several countries had acted independently to institute “digital service taxes,” which mainly impact the largest U.S. tech companies. But a breakthrough came recently, when numerous governments agreed in principle to a broad framework designed to curb multinational tax avoidance and stop what many perceive as a race to the bottom.

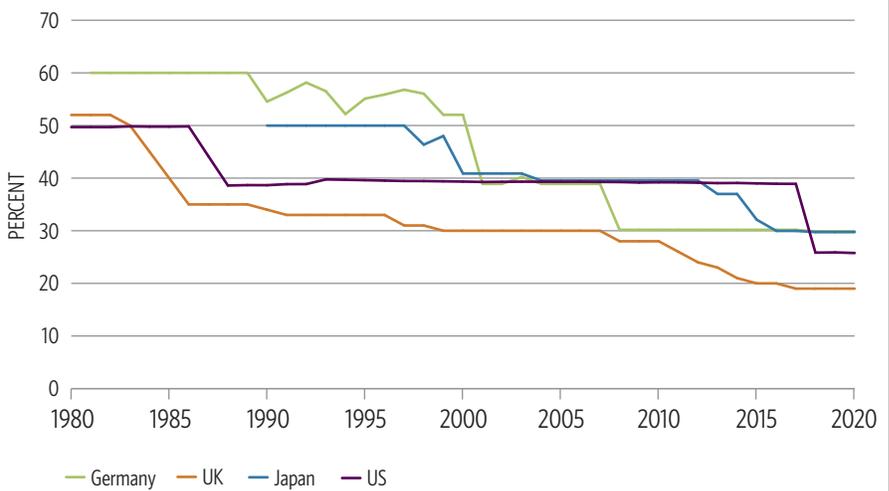
### THE INCENTIVE TO SHIFT

The corporate income tax hinges on the measurement of income. In principle, a corporation’s income should represent a fair estimate of its revenues minus costs during the period under consideration. In practice, earnings are difficult to pin down, even for purely domestic firms. Generally accepted accounting methods can yield estimates that are very different from methods dictated by tax authorities. On top of this, firms sometimes have a great deal of latitude in terms of when they recognize and book certain revenues and costs.

The incentive for multinational firms to shift income among their cross-border affiliates is built into the structure of the U.S. tax code and its relationship to the tax codes of competing foreign jurisdictions. The quantitatively most significant part of the U.S. corporate tax code is its territorial component,

### A Race to the Bottom?

Statutory corporate tax rates (federal plus state or provincial)



SOURCE: Organisation for Economic Co-operation and Development (OECD) Corporate Tax Statistics Database

which is based on the income that corporations earn from their operations on U.S. territory, whether the corporations are headquartered in the United States or abroad. Most advanced economies employ territorial tax systems, but since many countries have lower statutory corporate tax rates than the United States, corporations have an incentive to maximize their after-tax global profits by shifting income to lower-tax territories. The shifting can be done in two mutually compatible ways. A corporation can change its operations by making substantive economic changes such as moving production abroad. But a corporation can also — without necessarily changing its operations — make use of its legal and accounting latitude to shift reported income abroad. (See “Policy Measures and Countermeasures,” an online supplement at <https://bit.ly/corp-tax-policy>.)

Measuring a multinational firm’s territorial U.S. income is not a trivial task. For a firm with foreign affiliates, the calculation of domestic profits requires that the firm assign “transfer prices” to the goods and services that it explicitly or implicitly sells to and buys from the foreign affiliates. Transfer prices are supposed to correspond to prices that unrelated

third parties would pay or receive in the open market. “Even in the most straight-forward cases involving manufactured parts, the arm’s length principle can leave firms some wiggle room,” says Eric Toder, co-director of the Urban-Brookings Tax Policy Center. “But people feel that this works pretty well for goods and services that are not unique and where there is a ready market.” The wiggle room for setting prices and shifting income across borders greatly expands when the service is unique — which is often the case with intellectual property licensing agreements.

In addition to the territory-based tax, the U.S. corporate tax code has a worldwide component that applies to the foreign-sourced income of U.S. resident firms. Until 2017, the foreign income of U.S. resident corporations was taxed at the U.S. statutory rate, but only after the profits were repatriated as dividends to the U.S. parent. In practice, however, U.S. multinationals regularly deferred the repatriation of profits — a practice that created the so-called “lockout” phenomenon of U.S. firms holding an estimated \$2.1 trillion of accumulated profits overseas by 2015.

With the enactment of the Tax Cut and Jobs Act (TCJA) of 2017, U.S. resident firms became subject to a

minimum tax on global income based on a new concept bearing the acronym GILTI, for “Global Intangible Low-Taxed Income.” The GILTI tax applies to what are called the “residual” foreign profits of U.S.-based multinationals — specifically, foreign profits in excess of a “normal” return on foreign invested capital, a hurdle that lawmakers set somewhat arbitrarily at 10 percent.

The vast majority of U.S. corporate tax revenue is raised by the tax code’s territorial component rather than the global component. But this does not mean that the GILTI tax is irrelevant. The U.S. code’s global component works as a disincentive for firms shifting income abroad. “It is not just a lot of noise,” says Toder, “because the idea behind taxing foreign income is really to protect the domestic tax base.” But the protection provided by the global tax has a cost: It arguably provides an incentive for firms to shift their residence abroad.

## TAX AVOIDANCE TRENDS

Since the issue of tax avoidance is often front and center in discussions of corporate tax reform, it may be useful to look at how much U.S. multinationals have actually paid in corporate income taxes. Economists have estimated that, during 2009-2018, publicly traded U.S. multinationals paid over \$2.7 trillion in income taxes to governments globally — which translates into an effective tax rate, or ETR, of roughly 25 percent of their pretax earnings. Some may view the glass as half full because the dollar amount is high. Others may see the glass as half empty because the 25 percent ETR was well below the 39 percent U.S. statutory tax rate during most of the period (for federal and state taxes combined).

Economists have devoted much research to the variation of ETRs across firms and across time. In a 2017 article in the *Journal of Financial Economics*, Scott Dyreng of Duke University, Michelle Hanlon of the

Massachusetts Institute of Technology, Edward Maydew of the University of North Carolina at Chapel Hill, and Jacob Thornock of Brigham Young University found that the ETR for U.S. multinationals trended downward from roughly 34 percent in 1988 to roughly 24 percent in 2012. All of this occurred during a period in which the top U.S. statutory rate remained relatively constant. They found evidence suggesting that the decline was driven partially by U.S. multinationals becoming more global and intangibles based and partially by declining foreign statutory rates (which presumably lowered the effective taxes U.S. multinationals paid on their foreign earnings).

Some of the study’s results are difficult to interpret. Surprisingly, the researchers found a similar downtrend in the ETRs of purely domestic U.S. corporations. Moreover, they found that U.S. multinational corporations consistently had *higher* ETRs than U.S. domestic-only corporations, although the two rates show very similar patterns over time. While this does not contradict the notion that U.S. multinationals increasingly used cross-border income shifting during the period to reduce their taxes, it invites the obvious question: How did domestic-only firms accomplish the task? Economists have looked at various possible explanations, such as the timing of periods when the IRS allowed accelerated write-offs, but there does not appear to be a good explanation so far.

Researchers have uncovered a great deal of statistical evidence about the income shifting behavior of U.S. multinationals. In a 2017 article in the *Journal of Public Economics*, Tim Dowd, Paul Landefeld, and Anne Moore on the staff of Congress’ Joint Committee on Taxation provided further confirmation that such income shifting can be highly responsive to changes in cross-border tax differentials. Moreover, they found that the responsiveness of income shifting was much greater when the tax rates are already quite low. That is, a decline in

a country’s tax rate from 10 percent to 5 percent causes more income shifting into the country than a decline in the country’s tax rate from 30 percent to 25 percent. This result is consistent with income shifting being more sensitive to tax rate changes among tax havens than among those countries with higher tax rates. It suggests that most advanced countries may find it hard to attract corporate income by incrementally lowering their statutory rates.

It is difficult for outsiders to gauge the extent to which multinational income shifting reflects real operational changes that go beyond mere changes in corporate legal structures and accounting ledgers. Standard economic models predict that corporate income tax increases will tend to decrease investment, and the predictions have been confirmed by statistical research. In some cases, however, it appears that plant and equipment have been moved overseas to provide justification for income shifts that were originally accomplished via accounting latitude.

## THE TAX CUTS AND JOBS ACT

The enactment of the TCJA provided economists with something of a real-world experiment about the effects of corporate tax changes. The cut in the U.S. federal government’s territorial tax rate to 21 percent from 35 percent was expected on both theoretical and empirical grounds to stimulate investment in the United States and encourage corporations to shift income back into U.S. territory. Many observers held out hope that investment would also be stimulated by changes in the structure of the U.S. global tax — in particular, the provisions that ended tax deferrals and freed up the deferred profits held by U.S. multinationals’ overseas affiliates.

But the consensus view appears to be that the response of U.S. investment to the new tax law was underwhelming. “In theory, cutting corporate taxes should stimulate investment, but it did

not,” says Dhammika Dharmapala of the University of Chicago Law School. In a 2018 *National Tax Journal* article, he argued that the historical experience suggests that while repatriation holidays and cuts in repatriation taxes can dramatically increase repatriation of cash reserves held in overseas subsidiaries, these flows of cash to the United States have had no detectable effects on U.S. investment or employment levels. He noted that there is evidence that some cash-constrained U.S. multinationals may have responded by increasing their domestic investment. But based on studies of a previous repatriation tax holiday, mandated by the 2004 American Job Creation Act (AJCA), he argued that the general consensus in the literature “is that the primary impact of increased repatriations is an increase in shareholder payout” (in other words, dividends or stock buybacks).

Some analysts have criticized the TCJA’s changes in the U.S. global tax on the basis that they will increase the overall tax burden of U.S. residence. This conclusion appears to hinge on the premise that the GILTI tax will prove to be more burdensome for U.S. multinationals than the previous system of full but indefinitely deferred taxation of foreign earnings. “It may seem on the surface that GILTI is lower,” says Dharmapala. “But most U.S. multinationals did not take advantage of the tax holiday created by the AJCA. We can therefore say that the upper bound on the burden of the deferred tax was about 5 percent, which is the tax rate that they would have paid during the holiday to repatriate profits.”

The case that GILTI increased the global tax burden of U.S. multinationals has been bolstered by event studies that have found that the shift to GILTI caused U.S. multinationals to lose value relative to purely domestic U.S. corporations. According to Dharmapala’s 2018 journal article, “The TCJA increases the tax burden on U.S. residence for many, and perhaps most, U.S. MNCs .. [and will] create substantial distortions to the ownership of assets, both in the United States and around the world.”

### COUNTERING THE “RACE TO THE BOTTOM”

Treasury Secretary Janet Yellen did not mince her words. “We’ve had a global race to the bottom in corporate taxation, and we hope to put an end to that,” she testified at a recent hearing of the House Financial Services Committee. She views the U.S. corporate income tax as an important source of funding for the Biden administration’s planned expenditures on infrastructure investment and social services. Moreover, she sees it as a source of revenue that needs to be bolstered — particularly since U.S. government revenues from corporate income taxes shrunk to just 1 percent of GDP following the enactment of the TCJA, the lowest share since World War II.

The Biden administration, which sees international cooperation as vital to tackling tax avoidance and shoring up corporate tax revenues, achieved early successes in June and July when the G-7, OECD, and G-20 each reached an agreement in principle

on a proposal for a global minimum tax of at least 15 percent. There was also an agreement in principle on a revenue sharing concept that would apply to the “largest and most profitable” companies: At least 20 percent of their profits in excess of a 10 percent hurdle rate should be allocated toward the countries that buy their products and services. This arrangement could upend the traditional perspective that profits should be taxed in the territories where value is created — a standard that has become difficult to apply in cases where production no longer takes place on factory floors.

The global minimum tax would also come in lieu of the digital services taxes that have been imposed on large tech firms by some European countries. Indeed, the framework’s political success in the United States may very well hinge on the removal of these taxes, which many observers see as discriminating against U.S.-based firms.

The path from an agreement in principle to a fully operational global pact is likely to be long and arduous. In the EU, where such agreements require the unanimous assent of member governments, the pact faces opposition from several low-tax countries, including Ireland, Estonia, and Hungary. And in the United States, it faces opposition from those who are against corporate income taxes in any form as well as those who are concerned that the pact would put U.S. multinationals at a disadvantage to the extent that other countries hold out. Eventual success would require policymakers to gain the support of many diverse and competing interest groups. **EF**

---

### READINGS

Dharmapala, Dhammika. “The Consequences of the Tax Cut and Jobs Act’s International Provisions: Lessons from Existing Research.” *National Tax Journal*, December 2018, vol. 71, no. 4, pp. 707-728.

Dowd, Tim, Paul Landefeld, and Anne Moore. “Profit Shifting of U.S. Multinationals.” *Journal of Public Economics*, April 2017, vol. 148, pp. 1-13.

Dyreng, Scott, and Michelle Hanlon. “Tax Avoidance and Multinational Firm Behavior.” In C. Fritz Foley, et al., eds., *Global Goliaths: Multinational Corporations in the 21st Century Economy*. Washington, D.C.: Brookings Institution Press, 2021.

Dyreng, Scott, Michelle Hanlon, Edward Maydew, and Jacob Thornock. “Changes in Corporate Effective Tax Rates Over the Past 25 Years.” *Journal of Financial Economics*, June 2017, vol. 124, no. 3, pp. 441-463.