

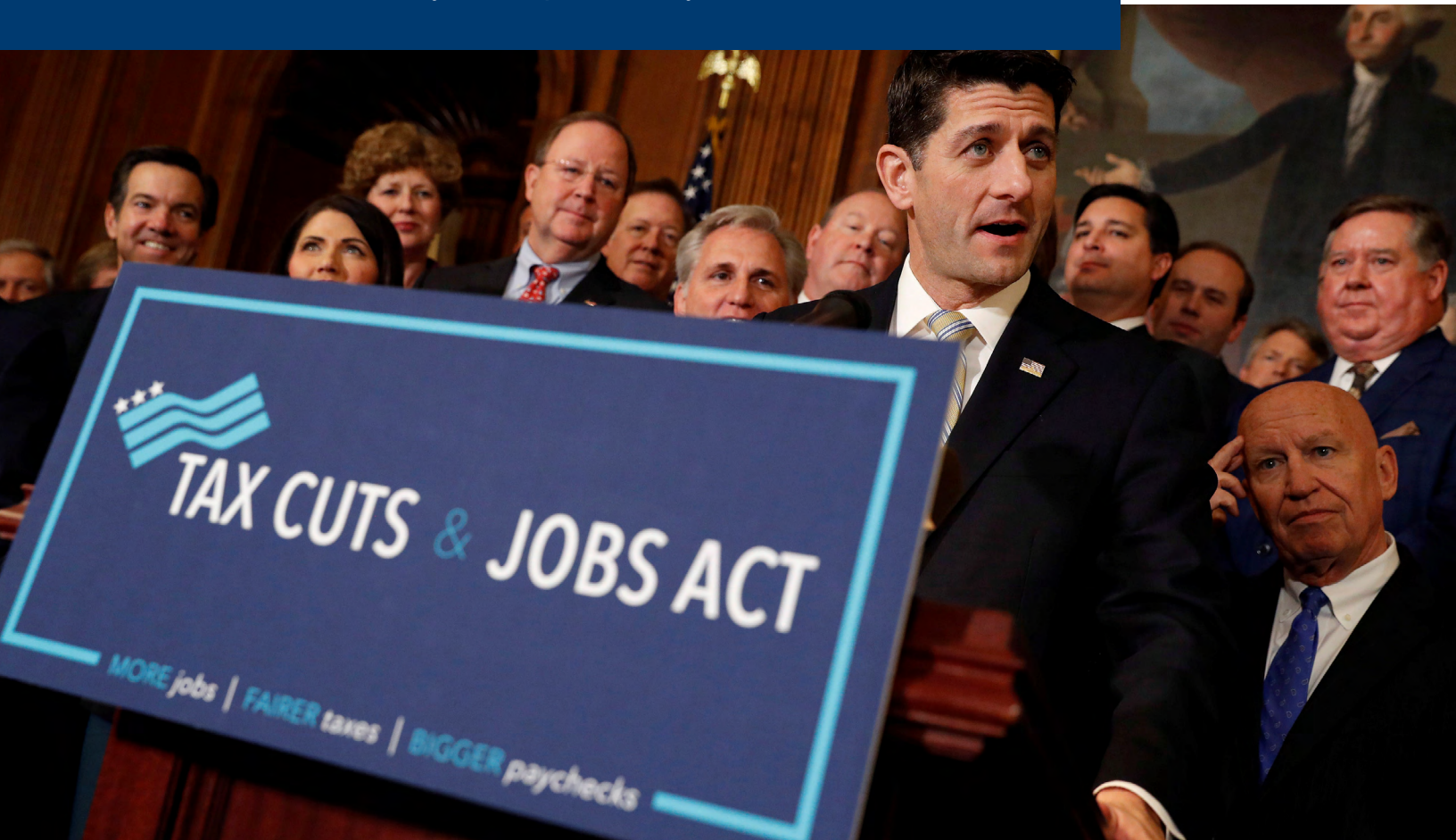
BROOKINGS

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SWEEPING CHANGES AND AN UNCERTAIN LEGACY

THE TAX CUTS AND JOBS ACT OF 2017

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ABSTRACT

The Tax Cuts and Jobs Act (TCJA) of 2017 introduced sweeping changes to individual and corporate taxation. We summarize the major provisions, trace the origins of the Act, and compare it to previous tax changes. We also examine the effects on the government budget, economic activity, and distribution of resources. Based on evidence through 2019, we find that the TCJA clearly raised federal debt and increased after-tax incomes, disproportionately increasing incomes for the most affluent. Its effects on GDP and median wages seem modest at best, although clear counterfactuals are difficult to identify. The impact on investment is less certain, and research is only recently emerging that addresses this question. Empirical analysis of longer-term effects may prove difficult due to the disruptions created by the COVID-19 pandemic starting in 2020.

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After the 2016 election, when Donald Trump won the presidency and Republicans held both chambers of Congress, lawmakers made tax reform a priority. The official process was quick. The Tax Cuts and Jobs Act was introduced on November 2, 2017, and signed into law on December 22, 2017. Although the bill was arguably the most sweeping realignment of the U.S. tax code since the Tax Reform Act of 1986, there were no hearings. Stakeholders had little time to comment on the bill. That said, the provisions enacted in the law had strong antecedents in ideas that had been expressed in previous years by lawmakers in both chambers of Congress, by President Barack Obama, and by presidential candidates from both parties.

The 2017 law combined a substantial tax cut for individuals and businesses with significant broadening of the tax base. But in 2017, Senate Republicans only had a slim majority and did not have the 60 votes needed to overcome a filibuster. A budget procedure called “reconciliation” allows lawmakers to make certain budgetary changes with only a simple majority. However, a Senate procedural rule known as the “Byrd rule”—named after Senator Robert Byrd (D-West Virginia) and dating back to 1985—requires that reconciliation bills cannot increase the federal budget deficit outside of the 10-year budget window. Thus, Republicans needed either to offset any tax cut after the 10th year or make some of the tax cuts temporary. They opted to make almost all the individual income tax provisions expire at the end of 2025, hoping to extend them when the time came. Having met the requirements to pass the bill through the reconciliation process, Republicans passed what was technically known as “The Act to provide for reconciliation pursuant to titles II and V of the concurrent resolution on the budget for fiscal year 2018” along strictly party lines in both the House (224-201) and Senate (51-48).

In this paper, we begin by describing the major goals and provisions of the Tax Cuts and Jobs Act, and the build-up of tax reform ideas in advance of 2017. We then review the evidence of its impact on tax simplification, marginal tax rates, the government budget, several measures of aggregate economic activity, including business investment, and the distribution of resources.

The Tax Cuts and Jobs Act offers a fresh opportunity to examine the effects of taxes on economic behavior.¹ Indeed, as Slemrod (2018) wryly remarked in this journal: “[W]hether or not the Tax Cut and Jobs Act is good for the U.S. economy and its population, it is clearly good for those of us who study taxation.” Estimating the impact of the Tax Cuts and Jobs Act and its individual provisions can be difficult, both because so many provisions changed at the same time and because contemporaneous economy-wide events may have blurred the tax effects. However, we will also present some survey evidence that the economics profession understood the likely consequences of the law when it was passed, as shown by the evidence that has accumulated since then.

Other papers in this symposium then delve more deeply into particular aspects of the law, with discussions of changes to the individual income tax, the taxation of domestic business income, provisions concerning international business taxation, and the attempt to encourage place-based economic development through “opportunity zones.”

Goals and major provisions

Prior to 2017, the last major tax overhaul occurred in 1986. There was a bipartisan understanding that the tax system needed reform, and even some general agreement on the direction of needed reforms. However, the bill was ultimately put together by the slim Republican majority in Congress, which approached tax reform with several major goals.

The first was business “competitiveness,” which in this context refers to the belief that lower corporate taxes would help U.S. firms gain market share when competing against foreign rivals. Prior to the Tax Cut and Jobs Act, U.S. corporations faced the highest statutory tax rate among any advanced economy—about 39% when considering federal and state levies (Pomerleau, 2023). In addition, most other countries had “territorial” systems, in which their firms paid tax domestically only on their domestic profits. In contrast, U.S.-based

multinational corporations paid U.S. tax on their worldwide profits but could defer tax on actively-earned foreign profits until they were repatriated to the U.S. parent company, at which time they also received a credit for having paid foreign taxes (Pomerleau 2021). This situation generated twin concerns that it discouraged U.S. firms from repatriating foreign profits to the U.S. parent and disadvantaged U.S. companies when competing overseas. Republican lawmakers also wanted to reduce taxes for pass-through businesses. Income from pass-through businesses does not face the corporate tax; instead, it is passed on to the owners and falls under the individual income tax. Over 60% of net business income reported to the IRS comes from pass-through firms (Pomerleau 2022).

The second goal was economic growth and a more efficient economy (Gaertner, Hoopes and Williams 2019). Supporters believed that reducing marginal tax rates would raise the size of the economy by reducing penalties on saving and investment and that reducing the dispersion of the tax rates across alternative uses would reduce distortions in the allocation of economic resources. These distortions ranged from addressing “special interest subsidies” like credits and deductions for specific economic activities to international profit shifting and corporate base erosions and “tax subsidies for debt-financed investment” (House GOP 2016).²

Simplifying individual income tax compliance costs was a third goal. Rep. Dave Camp (R-Michigan) stated in 2011 that “the tax code is onerous and burdensome because it is too complex, too costly and requires too much time to be spent on compliance” (House Ways and Means Committee 2011). Speaking about the 2017 Act, then-President Trump commented, “We’re going to simplify very greatly the tax code. H&R Block probably won’t be too happy. That’s one business that might not be happy with what we’re doing” (Isidore 2017).

In keeping with these goals, the Tax Cuts and Jobs Act made dozens of changes to the individual income tax, the corporate income tax, and estate and gift taxes. Table 1 shows the major features of the law and their 10-year revenue costs as scored by the Joint Commit-

tee on Taxation at the time the law was passed.

The first twelve rows of Table 1 show changes to the individual taxes. The largest revenue consequences stem from the reduction in marginal tax rates. In simplifying taxes, the Tax Cuts and Jobs Act consolidated several family benefits by eliminating personal and dependent exemptions, expanding the child tax credit, enacting a non-child dependent exemption, and roughly doubling the standard deduction. In combination with new limits on the state and local tax deduction and the home mortgage interest deduction, the increase in the standard deduction was meant to reduce the number of itemizers. At the same time, the income level at which the alternative minimum income tax might apply was greatly increased and the overall limitation to itemized deductions was eliminated. The TCJA also introduced a new 20% deduction for certain forms of pass-through business income.

The tax on individuals who did not have health insurance coverage, enacted in the Patient Protection and Affordable Care Act of 2010, was set to zero. The measure used to index income tax parameters for inflation was changed from the standard Consumer Price Index for All Urban Consumers (CPI-U) to a “chained” version of the index that allows for greater substitution away from those goods and services where price changes have been relatively higher—and thus generally leads to a lower inflation adjustment for tax parameters. The estate tax exemption was increased substantially, so that fewer taxpayers would be affected by the estate tax. All of these provisions are set to expire at the end of 2025, except for indexing and the elimination of the health insurance penalty.

The next eight rows show some historic changes in corporate taxation. Prior to 2017, the corporate tax had a graduated rate structure, though the largest firms faced, and most revenue derived from, the top rate of 35%. The act converted the corporate tax to a flat rate at 21% and repealed the corporate alternative minimum tax. The law enacted, temporarily, 100% “bonus depreciation,” which allowed firms to count the entire cost of certain investments as a current expense, rather than depreciating it over time, reducing the after-tax cost of investment. Several other changes were

designed, at least in part, to reduce the net cost of the bill: a tighter limit on net interest expense deductions as a proportion of income; a requirement that businesses amortize research and development expenses over time as opposed to immediately deducting them (starting in 2022); a tighter limit on the use of net operating losses to reduce taxable income; and the elimination of the Domestic Production Activities Deduction that had been available to firms with most of their production or work in the United States.

The final few rows of Table 1 show the main alterations in tax treatment of multinational corporations, which moved U.S. corporate taxation toward a territorial system. The primary reform was to enact a “participation exemption,” which eliminated the tax on profits paid from controlled foreign corporations to U.S. parent firms. One challenge of pure territorial systems is that firms have larger incentives to shift profits outside the United States to reduce their tax burden than under residence-based systems. To reduce such activity, the law included a variety of so-called “guardrails:” “global intangible low-taxed income” (GILTI), “foreign-derived intangible income” (FDII), and the “base erosion and anti-abuse tax” (BEAT). In addition, the Tax Cuts and Jobs Act enacted a one-time tax on previously accumulated but unrepatriated, and therefore untaxed, foreign profits.

A wide variety of other changes in the Tax Cuts and Jobs Act created or altered tax provisions ranging from “opportunity zones,” excise taxes on alcohol, limits on executive compensation, and tax breaks that benefited private jet companies and the owners of dead citrus trees. The 2017 law also included provisions beyond taxation, including a mandate to open the Arctic National Wildlife Refuge to oil and gas drilling.

The road to 2017

Although the Tax Cuts and Jobs Act of 2017 was passed into law quickly after being introduced, there had been an active discussion about many of its provisions for several years. Many of the roots of Tax Cuts and Jobs Act were present in a 2014 bill intro-

duced by Representative Dave Camp (R-MI), Chairman of the House Ways and Means Committee. That bill would have increased the standard deduction and the Child Tax Credit, while eliminating the personal exemption and state and local tax deduction. It would have reduced top statutory rates to 35% for individuals and 25% for corporations, and taxed pass-through business income generated from manufacturing activity at 25%. Camp’s bill would also have shifted U.S. multinationals to a quasi-territorial system. Corporations could repatriate earnings back to the United States, tax-free, but would face a minimum tax on foreign profits above a deemed return (Joint Committee on Taxation 2014).

A year later, the U.S. Senate Committee on Finance (2015) launched five bipartisan working groups, covering individual income taxation, business income taxation, savings and investment, international taxation, and community development and infrastructure. The working groups did not produce any specific tax plan, but discussed several tax proposals that made their way into the Tax Cuts and Jobs Act, including limiting business deductions for interest payments and taxing all currently deferred foreign profits at a discounted rate over several years.

In 2016, the Obama administration released a business-only tax reform plan. Like the Camp bill, it was revenue-neutral and proposed a territorial tax system with a minimum tax on foreign profits, with an allowance for corporate equity (similar to an exemption for a deemed return) and limits on the foreign tax credit. It proposed reducing the top corporate tax rate to 28%, eliminating the corporate alternative minimum tax, curtailing interest deductions, and eliminating many corporate tax expenditures, most notably for the oil and gas industries. It also argued for including a one-time levy on currently deferred profits in the transition to a new system for treating foreign income of multinationals. These ideas elaborated on a 2012 proposal from the Obama administration (White House and U.S. Department of the Treasury 2012, 2016).

Also in 2016, House Republican leadership—Speaker of the House Paul Ryan (R-Wisconsin) and Chairman of the Ways and Means Committee Kevin Brady

(R-Texas)—released what they called the “Blueprint” (House GOP 2016). Like the Camp bill, for the individual income tax, the plan would cut tax rates, reform family benefits, limit itemized deductions, and eliminate the individual alternative minimum tax. For corporations and other businesses, the Blueprint introduced the so-called “destination-based cash flow tax,” which would have adjusted the corporate tax in three fundamental ways: it would allow expensing (full, immediate write-offs) of investment; it would eliminate interest deductions; and rather than using either a world-wide or territorial system to tax multinationals, it would “border adjust” taxes—that is, it would tax imports and exempt exports (Auerbach 2010, Gaertner, Hoopes and Maydew 2019). Border adjustment generated widespread opposition and was eventually dropped. But the Tax Cut and Job Act moved towards a cash flow tax by including bonus depreciation and partially limiting interest deductions.

From a broader perspective, the Tax Cuts and Jobs Act reflected two different approaches to tax reform. One approach focuses on “broaden the tax base and reduce marginal tax rates.” In this spirit, the earlier Tax Reform Act of 1986 reduced statutory tax rates for both businesses and individuals and contained numerous base-broadening provisions.³ Indeed, by limiting the deduction for state and local taxes (which barely survived the 1986 act) and in modernizing the taxation of foreign profits of multinational corporations, the TCJA in some ways went farther than the 1986 law. However, whereas the 1986 law sought to tax more forms of income at the same rate, the 2017 law introduced new distortions, such as subsidies for business income relative to wage income.

The second approach focuses on reducing taxes in the hope of stimulating economic growth or reducing other distortions (Romer and Romer 2010). In this spirit, major tax cuts occurred in 1981, 2001, 2003, 2010, and 2012, with relatively minor increases in 1990 and 1993. In particular, the Tax Cuts and Jobs Act has much in common with 1981 tax cuts under President Reagan and the 2001 and 2003 tax cuts under President Bush, which were extended under President Obama for all taxpayers in 2010 and most taxpayers in 2012 (Hanlon and Hoopes 2014). Those reforms were focused

on reducing marginal tax rates as a way to stimulate growth, but they also cut revenues substantially and were regressive.

Another way that tax reforms differ is in their ability to survive. For example, the “broaden the tax base, cut the rates” bipartisan deal in the 1986 Tax Reform Act began to unravel just a few years after it was enacted. In contrast, although the TCJA was approved by strict party line votes, when the Democrats had control of both House of Congress and the White House starting in 2021, they did not make any significant changes to TCJA, even when they passed a major tax reform of their own, also by strictly party line votes. But many provisions of the TCJA provisions seem likely to be re-legislated in 2025, when significant portions are scheduled to expire.

Simplification

In many ways, the Tax Cut and Jobs Act succeeded in its goal of simplifying the individual income tax. Measuring simplification isn’t simple. But as one measure, in 2017, about 31% of tax filers itemized their deductions rather than taking the standard deduction (IRS 2017a). Itemizing deductions required tracking expenses such as mortgage interest, charitable contributions, healthcare, and state and local taxes. In 2018, this figure fell to 11% of taxpayers (IRS 2018a). Further, before the 2017 tax act, 55% of households earning more than \$200,000 a year were subject to the Alternative Minimum Tax—a parallel income tax with its own independent tax calculation that increased the cost of complying with the tax code (IRS 2017b). In 2018, this figure fell to 2.3% (IRS 2020b).

The biggest potential setbacks on the simplification front relate to business taxation. The deduction for pass-through business is complex. It allows for new ways to shelter income and creates new distinctions in the tax law (Kamin et al. 2019). Also, some of the international provisions, such as the GILTI tax (“global intangible low-taxed income” and the BEAT (“base erosion and anti-abuse tax”) are difficult to comply with and to audit and may have spurred entirely new forms of tax planning (Kelley et al. 2023).

MARGINAL TAX RATES: LEVELS AND DISPERSION

The Tax Cut and Jobs Act clearly succeeded in reducing the level of marginal tax rates on labor and capital income and the dispersion of such rates across types of firms and financing options. The Congressional Budget Office (2018b) estimated that the marginal tax rate on labor would be persistently lower from 2018 until 2025 (when the individual tax cuts are scheduled to expire, absent Congressional action) primarily due to lower statutory income tax rates.

The Congressional Budget Office (2018b) also projected that the effective marginal tax rate on capital would fall early in the budget window then rise slowly through the decade as certain provisions expired. The effective marginal rate is a theoretical measure of the burden on a “marginal” investment, or an investment that just breaks even in present value terms. The CBO measures capture both the taxes on the returns and the value of any deductions and credits business receive for new investment projects. The primary mechanisms by which capital tax rates fell were the cut in the corporate rate, the pass-through deduction, and the expansion of expensing. Partially offsetting these provisions were the limitation on interest payments and the amortization in research and development expenses (which went into force in 2022), among other provisions discussed above.

Besides reducing marginal tax rates on labor and capital, the Tax Cuts and Jobs Act also reduced the dispersion of marginal effective tax rates across asset types, financing methods, and organizational forms. The act reduced the difference between the marginal effective tax rate on corporate and noncorporate investments by 3.5 percentage points (from 3.3% to -0.2) and reduced the difference in the marginal effective tax rate on equity- versus debt-financed corporate investments by 44.4 percentage points (from 57.8% to 13.4%) (CBO 2018b). These smaller tax differentials lowered incentives to engage in tax planning involving entity selection choices and reduced the benefit to debt financing over equity financing, lowering incentives for firms to be overleveraged in ways that contribute to financial crises (De Mooij, Keen and Orihara 2014).

The Tax Cuts and Jobs Act also affected the average effective tax rate on corporate investment. In a global economy, corporations locate profitable assets where they can maximize the total return on new investment. Thus, the average tax rate, not the marginal rate, matters for the location of mobile assets. In 2017, the average effective U.S. tax rate on corporate investment was 37.1%, 11 percentage points higher than the non-U.S. OECD average. After the tax act, it fell to 26.3%, just above the non-U.S. OECD average of 25.5% (U.S. Department of the Treasury 2018, 2022).⁴

Finally, even as average tax rates fell for large and multinational firms, tax rates rose, on average, for privately-held domestic firms, some of whom had faced 15% corporate tax rates before TCJA on a significant share of their profits and some of whom were caught up in the tighter “net operating loss” rules imposed in 2017. Domestic firms and start-ups account for most C corporations and about one-third of C corporation employment, and are often engines of innovation and growth, especially in the technology and health sectors (Dobridge et al. 2023).

REVENUE AND BUDGET EFFECTS

A few political figures who supported the Tax Cut and Jobs Act argued that it would spur enough economic growth to be self-financing: for example, former U.S. Treasury secretary Steven Mnuchin claimed the law would “not only pay for itself but in fact create additional revenue for the government” (as reported in Bryan, 2018), while former Senate majority leader Mitch McConnell (R-Kentucky) said he was “totally convinced [it was] a revenue neutral bill” (as reported in Tankersley and Phillips 2018).

However, a consensus of economic forecasters predicted that the Tax Cuts and Jobs Act would reduce revenue substantially (Barro and Furman 2018; International Monetary Fund 2018; Mertens 2018; Page et al. 2017; Penn Wharton Budget Model 2017; Tax Foundation 2017; Zandi 2017). Nonpartisan estimates from within the government agreed. The Joint Committee on Taxation (2017a) projected a reduction in revenues totaling \$1,456 billion through 2027. In April 2018, Congressional Budget Office (2018a) concluded

that decline in revenue would be more than originally estimated due to more baseline economic output than initially expected before passage of the Tax Cuts and Jobs Act. Counting the additional net interest payments due on the resulting higher levels of debt, the total budgetary cost came to \$2,291 billion within the budget window, raising the ratio of debt-to-GDP by 8 percentage points by 2028.

These estimates account for many behavioral responses, but hold macroeconomic aggregates fixed. However, the increases in GDP associated with the Tax Cuts and Jobs Act (discussed in the next section) can offset some of the revenue losses obtained under conventional scoring. Various estimates projected that dynamic responses would reduce the revenue loss by between 7% and 31% (CBO 2018a, Joint Committee on Taxation 2017a, Page et al. 2017, and Penn-Wharton Budget Model 2017).

Short-term estimates of the budget effects are derived from comparing projected federal tax revenues immediately after the passage of the Tax Cuts and Jobs Act to realized revenue from 2018 and 2019 (Gale and Haldeman 2021). As shown in Figure 1, Panel A, total federal revenue in 2018 and 2019 was 7.4% (\$545 billion) lower than projected before the TCJA (CBO 2020a). The decline is 6.9% below projections in the individual income tax and 37% for corporate tax revenue. In contrast, payroll tax revenues, which were not affected by the TCJA, tracked projections very closely, which suggests that the declines in revenue from the other taxes were not the product of overly optimistic prior projections.

Medium-term revenue effects are more difficult to examine for two reasons. First, although firms clearly reacted in 2018 and 2019 (Chodorow-Reich et al. 2024; Kennedy et al. 2024), long-term responses along various dimensions could be larger or smaller than short-term responses.⁵ Second, the disruption created by COVID-19 and subsequent fiscal and monetary actions, as well as the large corporate tax cut passed by Democrats in 2022 by way of the Inflation Reduction Act blur the impact of TCJA.

One difficulty in assessing medium-term revenue effects involves corporate income tax revenue. Figure

1, Panel B, shows real corporate tax revenue collected from 2000 through 2023. While the same initial drop in 2017 is evident as in Panel A, so too, is an increase in revenues starting in 2020. It is difficult to know how much of this increase to attribute to firms' responses to the Tax Cut and Jobs Act, however, given the COVID-19 pandemic, the fiscal and monetary responses, and other factors, (Gale, Pomerleau, and Rosenthal 2022 and Hoopes 2022). Despite the economic gyrations since 2020, real corporate revenues in 2023 were almost exactly what the Congressional Budget Office predicted post-TCJA (Goldwein 2024).

Over the long term, the Tax Cuts and Jobs Act is projected to reduce federal revenue. Federal tax revenues averaged 17.4% of GDP from 1962 to 2016 and equaled 18.1% of GDP in 2016 (CBO 2024a). In the wake of the Tax Cuts and Jobs Act, federal revenues fell to 16.3% of GDP in 2018, the lowest share since before 1962 except for 2003–04 and 2009–12. In those periods, the economy experienced significant slack. In contrast, TCJA was enacted during a long economic expansion (CBO 2024a). Revenues are now slated to rise to 17.9% of GDP by 2033 under current law (CBO 2024b). If instead, the individual tax provisions in TCJA that expire after 2025 are extended, along with the expensing rules for equipment investment, CBO (2023) projects receipts will be 1.1% of GDP lower—16.8% of GDP in 2033. The 10-year costs of extension would exceed \$4.5 trillion (CBO 2024c). Over the 30-year window that CBO and other groups typically use for long-term projections, extending the individual income tax provisions would raise the debt by more than 30% of GDP by 2053 (Auerbach and Gale 2024).

GROWTH AND ECONOMIC ACTIVITY

Tax cuts can affect both aggregate demand and aggregate supply. Tax cuts can boost aggregate demand by raising households' after-tax income. As this additional after-tax income is spent, it can result in additional temporary hiring, investment, and economic output. The effect on output will depend on the state of the economy. In a slump, additional spending could bring unemployed workers into the labor force and encourage new investment. In a boom, additional spending would mainly bid up prices without changing real output much. The impact will also depend on the

extent to which the monetary authority accommodates or offsets the tax policy. It will also depend on who receives the tax cut, since low-income households tend to have a higher propensity to consume out of income than high-income households, although their consumption may derive more from foreign-produced goods. While demand effects can temporarily boost national income, they are unlikely to boost the economy's capacity permanently.

Tax cuts can also boost an economy's aggregate supply—and hence its capacity to produce goods and services—by increasing incentives to work, save, and invest and by reducing distortions across similar activities. The effect of the Tax Cuts and Jobs Act on marginal and average tax rates was discussed earlier. These supply-side effects could lead to more supply of labor and capital and more efficient allocation of resources, and thus to faster economic growth in the short and medium term and a permanently higher level of output in the long run.

Another effect of tax cuts, though, is to increase the federal budget deficit. Additional federal borrowing reduces national saving and reduces future national income. In simple closed-economy models, all investment is financed by domestic saving, and so higher government deficits (that are used to finance consumption) typically raise interest rates, crowd out private investment, and reduce future output and income. In more realistic open economy models, government borrowing from abroad would not necessarily increase interest rates, depress domestic investment, or reduce future output. But it would lead to an increase in the share of U.S. assets held by foreign investors: that is, it would worsen the U.S. "net international investment position," which is claims on foreign assets by U.S. residents minus claims on U.S. assets by foreign residents. As a result, even if foreign borrowing does not reduce future output, it still reduces future income for people in the domestic economy, because it raises the share of output that has to be paid to foreign investors.

Since its passage, researchers have employed three approaches to examine the effects of the Tax Cuts and Jobs Act: macroeconomic simulations; compar-

isons of economic aggregates, from before the 2017 tax law to 2018 and 2019, before the pandemic hit; and micro-econometric studies of particular sectors. Longer-term effects that allow for further supply-side responses are made difficult because of complicating factors after 2019.

Macroeconomic simulations

Simulation modeling has certain advantages. It can provide estimates of a policy while holding constant other factors that could impact the economy, and the estimates are not constrained by having to wait for data on policy outcomes to emerge. The downside is that many parameter assumptions are required, and in many cases, the relevant empirical literature has not consolidated around a precise estimate of these parameters.

Typically, simulation models project that the Tax Cut and Jobs Act would boost output of the United States, at least temporarily. For example, the Congressional Budget Office (2018a, Figure 1-3) estimated that output would rise by 0.3% in the first year and would be almost 1% larger than it otherwise would have been by 2022, due to both increased aggregate demand and greater supply of labor and capital. After 2022, output growth would slowly fall and GDP would only be higher by 0.5% in 2028—the final year of the budget window—than it would have been under pre-existing law, both because many of the temporary features of the law would expire and because the additional borrowing would raise interest rates and start crowding out private sector investment. Several other studies generate similar—but not always identical—levels and time patterns of estimates.⁶

These estimates examine the tax cut as it was legislated. If the temporary provisions in the Tax Cuts and Jobs Act (and the rest of the tax system) are extended, and the scheduled increases in some corporate provisions are not allowed to take effect, Barro and Furman (2018) estimate that GDP would be 1.0% larger in 2027 than it would have been relative to a baseline that assumes pre-TCJA law holds (including crowd-out effects of government debt).⁷

Aggregate trends

Several efforts have been made to assess the impacts of the Tax Cuts and Jobs Act using aggregate data from 2018 and 2019—before the COVID-19 pandemic disrupted the economy (Gravelle and Marples 2019, Furman 2020a, Gale and Haldeman 2021, Sullivan 2024). The advantage of these studies over simulations is that they use relevant macroeconomic data. However, these studies may not be compelling for at least two reasons. First, by considering results only through 2019, the studies focus on short-term effects. Short-term growth dynamics are typically dominated by changes in aggregate demand, whereas long-term growth stems from changes in aggregate supply. Although the micro-investment studies noted below suggest that firms did respond actively in 2018 and 2019, supply-side process may take a significant amount of time to take full effect, as Mathur (2019), Viard (2019), and others emphasize. Ultimately, the long-term supply-side effect could be larger or smaller than the short-term effect.

Second, aggregate comparisons are not dispositive, because many things could and did change in the macro-economy at the same time, but they can still help frame the discussion. Because it is difficult to tease out effects from aggregate data under the best of circumstances, we confine our attention to the effects in 2018 and 2019, the period before the COVID-19 pandemic disrupted the economy.

With those caveats, we note that the aggregate studies generally do not find a significant short-term impact of the Tax Cuts and Jobs Act on macro variables such as GDP, investment, employment, and labor compensation. Real GDP growth averaged 2.65% in 2018-2019, compared to 3.05% in 2017 and 2.52% in 2013-2017 (Sullivan 2024). GDP grew at the same rate in the eight quarters preceding enactment of TCJA as in the eight quarters after enactment (Furman 2020a).

Just after the passage of the Tax Cuts and Jobs act in 2018 and 2019, several other major factors impacted the economy. On one side, rising trade tensions and tariffs slowed growth—estimates suggest that tariffs reduced GDP by roughly 0.3 percentage points rela-

tive to baseline in the short run, falling to around 0.1 percentage points by 2029 (CBO 2019, Fried 2019). Conversely, fiscal policy was expansionary: Furman (2020a) and Campbell et al. (2019) estimate that the Bipartisan Spending Acts of 2018 and 2019 boosted GDP growth by between 0.75 and 1.75 percentage points. In addition, monetary policy was more accommodating in 2018 and 2019 than had been predicted pre-TCJA. When TCJA was enacted, Federal Reserve Officials projected a federal funds rate of 2.7% at the end of 2019, but it ended up being substantially lower at 1.625% (Furman 2020a).

Perhaps surprisingly, several comparisons suggest that trends in aggregate investment were not markedly influenced by the Tax Cuts and Jobs Act.

First, the Tax Cuts and Jobs Act substantially reduced the user cost of capital for equipment and structures (Barro and Furman 2018, Chodorow-Reich et al. 2024, Congressional Budget Office 2018, Kennedy et al. 2024). But Figure 2 and Table 2 show that real equipment investment rose only slightly as a share of real GDP, from 5.9% in 2015-16 to just over 6.0% in 2018-19, and that investment in structures was the same share of GDP (3.1%) in those two periods. In addition, an IMF study found that investment growth after TCJA was smaller than would have been expected based on previous corporate tax cuts and was explained by increases in aggregate demand (Kopp et al. 2019).

Second, relative changes in marginal effective tax rates (or the user cost of capital) across different asset types do not correlate well with relative changes in investment. The studies noted above show that the Tax Cuts and Jobs Act reduced the tax burden for investments in equipment and structures by more than it did for intellectual property, but investment in intellectual property grew faster than in equipment and structures. Unlike equipment and structures, investment in intellectual property had risen steadily in the years before TCJA and essentially just continued that trend after TCJA.

Third, comparisons of CBO investment projections with actual investment data show similar patterns. In early 2017, after President Trump took office and

before TCJA was introduced, CBO projected that real nonresidential investment would rise by 8.6% from the first quarter of 2017 to the final quarter of 2019 (CBO 2017b). It actually rose by significantly more—13.8% (BEA 2024). However, mirroring the results above, virtually all the difference between projected and actual figures was due to intellectual property investment. Equipment and structures investment, which received the largest tax cuts, was projected to rise by 8.3% and only did slightly better in actual terms—8.6%.

Finally, comparisons of investment across countries similarly do not show significant impact of the Tax Cuts and Jobs Act. Figure 3 shows that, after 2017, the change in investment as a share of GDP in the United States was not exceptional compared to other G-7 countries (that is, Canada, France, Germany, Italy, Japan, and United Kingdom). Although the U.S. economy had the second-highest growth rate in investment/GDP from 2013 to 2016, investment growth was not exceptional from 2016 to 2019. Indeed, the U.S. economy had only the fourth highest growth rate (essentially tied with Japan) in investment/GDP from 2016 to 2019, incorporating the period after the TCJA. Other than Japan, none of the other G-7 countries had major business tax reforms during this period.⁸

Investment in owner-occupied housing declined after 2017, in line with the estimated increase in the cost of capital for housing and the limits on the deductibility of property taxes in the TCJA (Pomerleau 2019). As with GDP, however, factors other than the TCJA affected investment over this period. For example, delayed deliveries of Boeing's 737 MAX plane reduced investment growth by 0.5 percentage points in 2019 (CBO 2020a).

Wage and employment data align with the notions that the Tax Cuts and Jobs had little aggregate effect in 2018-19 and predominantly benefited high-income earners, without substantially enhancing wages for other workers or overall employment rates. Following the enactment of the TCJA, the growth in total nonfarm employment witnessed a decrease of 0.44 percentage points during 2018-19 compared to 2016-17, as shown in Figure 4. Moreover, the growth in employment-to-population ratio among prime-age

individuals (25–54) declined by 0.16 percentage points. It's worth noting that employment levels were already nearing historic highs at the time of the Tax Cuts and Jobs Act passing, potentially making further employment growth harder to achieve as the economy neared full employment. It might seem that tightening labor markets should have led to an increase in wage growth. But growth in real median earnings for all wage and salary employees rose by only 0.09 percentage points after the enactment of the TCJA. However, one alternative gauge of wages did exhibit a faster rise following the 2017 law: The portion of the Employer Cost Index that measures average wages and salaries rose by 0.57 percentage points. The accelerated growth in mean wages alongside the much growth in median wages raises an intriguing possibility: The shift in employer costs primarily favored high-income earners, with low- and middle-income workers not experiencing commensurate wage growth. Supporting this idea, Kennedy et al. (2024) indicate that the corporate tax cuts in TCJA resulted in wage hikes for owners, executives, and the top 10% of workers in small firms, while leaving the wages of workers in the bottom 90% unaffected. Similar incidence results for other corporate tax cuts have been shown by Ohrn (2024) and Dobridge et al. (2022).

These wage patterns may seem inconsistent with some well-publicized corporate announcements of pay raises and bonuses for employees after the Tax Cuts and Jobs Act was enacted. For example, Walmart (2018), the nation's largest private employer, announced an increase in its minimum wage up to \$11 an hour starting February 17, 2018, and attributed the increase to the 2017 tax law. Moreover, companies that gave bonuses at this time were more likely to have received larger tax cuts under the TCJA (Hanlon, Hoopes, and Slemrod 2018) and sometimes announced these bonuses as "sharing the gains" with workers. But more broadly, these bonuses look like political advertising. The wage bonuses were generally small (Gale and Haldeman 2021), and companies that gave bonuses were also more likely to have contributed to Republican political action committees than Democratic ones (Hanlon, Hoopes, and Slemrod 2018; Rosenthal 2019).

The Tax Cuts and Jobs Act may also have encouraged firms to move their foreign-held intellectual property assets back to the U.S. economy. For example, payments from Ireland to the United States for the use of intellectual property products rose sharply from roughly €2 billion per quarter in the early-to-mid 2010s to nearly €4 billion in the last quarter of 2019 and to €28.7 billion in 2023Q3. These changes are consistent with incentives embedded in the TCJA but also correspond to the timing of the OECD's work on harmonizing a minimum global corporate tax (as discussed in the paper by Clausing in this symposium) and changes to Irish corporate tax law (Cole 2024).

Comparisons and Causality

Other papers have sought to measure the impact of the Tax Cuts and Jobs Act using methods that emphasize using micro data and drawing comparisons that are more likely to allow causal inferences (as reviewed in more detail in the paper by Chodorow-Reich et al. in this symposium). Here, we mention an illustrative selection of methods that have been used and discuss the results. These studies generally find corporate behavior, such as investment, more in line with the incentives created by the law, but these methods have weaknesses of their own.

One approach is to look across the range of C corporations, calculate how the Tax Cuts and Jobs Act affected the cost of capital for different firms, and then see if changes in cost of capital are reflected in investment decisions. Chodorow-Reich, Smith, Zidar, Zwick (2024) take this approach, using a sample of about 12,000 tax returns from mid- and large-size corporations. Their regressions show that firms with larger tax cuts increased their investment from 2015-6 to 2018-9 by more than firms with smaller or no tax cuts. They construct a long-term, general equilibrium simulation model, calibrated with the tax parameter estimates and find that the domestic and foreign capital stock held by domestic corporations will rise about 7% and 13%, respectively. They also find that moving to expensing has a bigger “bang for the buck” than cuts in corporate tax rates, that domestic and foreign capital appear to be complements at the firm level, and that “dynamic” revenue estimates of the revenue loss from the corporate cuts are very close to the “static” estimates.

Another type of analysis involves comparing S corporations, which pass through their income to the owners each year, and C corporations, whose income is taxed at the firm level and, again at the individual level, as either dividends or capital gains (when realized). Kennedy et al. (2024) show the Tax Cuts and Jobs Act reduced taxes for C corporations by more than for S corporations. They use matched employer-employee tax data to examine the effects of TCJA on otherwise similar (same industry and size category) C and S corporations. Their regression evidence suggests that the larger reductions in marginal tax rates caused C corporations to increase their sales, profits, investment, and employment relative to S corporations, with responses driven by capital-intensive industries. Their simulation estimates suggest that a \$1 reduction in corporate tax revenue generates an additional \$0.44 in output on average and that the corporate tax cuts generated a net output increase of \$38 billion, or 0.18% of 2016 GDP.

These results reflect the effects of the Tax Cuts and Jobs Act on smaller C corporations, those that can be reasonably compared to S corporations. However, large corporations, such as Amazon and Walmart, are likely to be omitted from the analysis and are plausibly the firms that TCJA affected the most.

A third approach focuses on “synthetic controls.” This approach attempts to create a sample of firms in other countries that are similar to U.S. firms and compares investment of the two groups over time. Markarian and Crawford (2022) show that that relative to a control group of Canadian firms, U.S. firms increased investments after the Tax Cuts and Jobs Act by 0.4% of total assets and that the increases were concentrated in the firms the TCJA was likely to affect—large multinationals with cash trapped abroad. In their study, Chodorow-Reich, Smith, Zidar, Zwick (2024) find that the U.S. C corporations in their sample increased their investment by 17% more than a synthetic control group that they created.

Synthetic controls of different groups of corporations, however, have two potential shortfalls. First, unlike cross-country studies, synthetic controls analysis requires (or allows) analysts to make choices about which firms to include and exclude in the analysis, and such decisions are often based on data availability,

rather than firm characteristics. For example, in their synthetic control analysis, Chodorow-Reich, Smith, Zidar, Zwick (2024) end up excluding 83% of corporations (accounting for 41% of investment) in their potential synthetic group. Second, synthetic control analyses of corporations omit consideration of how non-corporate investment changed. A tax cut that resulted in reallocation of investment from pass-through businesses to C corporations in the U.S. would misleadingly appear as a positive effect on overall U.S. investment.

A final approach is to examine changes in economic activity by pass-through organizations whose owners had different exposure to the pass-through deduction enacted in 2017. Goodman et al. (2024) use this approach to demonstrate that, in 2018 and 2019, variations in exposure to the deduction had little effect on firms' reported business income eligible for the deduction, physical investment, wages paid to non-owners, or employment by the affected firms.

Distributional effects

Determining who bears the burden of taxes is one of the oldest and most controversial issues in economics. For income taxes, it is reasonable to claim that those who pay the tax bear the burden. For payroll taxes, the common belief is that workers end up bearing the burden both for what they pay directly, and also—in the form of wages lower than they would otherwise be—for the share nominally paid by employers.

Although the corporate tax is remitted by companies to the government, the tax is ultimately borne by individuals. Traditionally, the “corporate tax burden” refers to the extent that the tax affects different sources of income. Individuals can be made worse off by the tax in various ways: reduced wages (workers), reduced dividends or capital gains (shareholders), or reduced rate of return on capital (all capital owners). The Urban-Brookings Tax Policy Center Simulation Model, used for the estimates below, assumes that 20% of the corporate burden is borne by workers, 20% by all capital owners, and 60% by shareholders. Models used by the Treasury Department provide similar assump-

tions (Cronin 2022). CBO (2018) and Joint Committee on Taxation (2013) assume that 75% is allocated to capital owners and 25% to labor, which, in practice, does not generate dissimilar results.⁹

Distributional analysis distributes the cash value of tax burdens: it essentially examines income effects, but typically falls short of a full welfare analysis that would include substitution effects. It omits the short-run and dynamic impacts of taxes and focuses instead on the long-run comparative static impacts (Auerbach 1993, 2018). Nevertheless, it can be valuable, especially for taxes like the corporate income tax, where the payer is by definition not the entity that bears the burden of the tax.

Many distributional analyses follow a convention that changes to taxes are distributed to households while assuming no changes in government spending, other taxes, or national income. However, these conventional analyses do typically assume that individuals can change their behavior to reduce their tax liability, given changes in tax law.

Based on standard assumptions, the Tax Cuts and Jobs Act reduced tax liability of most households, with a larger effect on after-tax income for high-income households. According to estimates from the Tax Policy Center in the first column of Table 3, 80% of tax filing units received a tax cut; the average tax cut over all tax units was \$1,610 in 2018. After-tax income rose by 2.2% on average, but by only 0.4% for households in the lowest quintile, compared with 1.6% and 2.9% for those in the middle and top quintile respectively, more than 4% for those in the ninety-fifth to ninety-ninth percentiles, and 3.4% for taxpayers in the top 1%. The differences in dollars are more extreme: \$60 for those in the bottom quintile, \$930 for the middle quintile, and \$51,140 for the top 1%. While the specific numerical estimates vary in different studies, the general thrust of the results above are matched in other studies (CBO 2017c, Tax Foundation 2017, Penn Wharton Budget Model 2017).¹⁰

Taxes fell for high-income households for three main reasons: rate reductions (high-income households benefit from all the rate cuts, not just the reduction

in the top rate); the deduction for pass-through firms (section 199A), where between one-third and one-half of the benefits went to taxpayers with adjusted gross income above \$1 million (JCT 2018, Goodman et al. 2023); and the corporate tax cuts, because shareholding is concentrated among affluent households.

At the same time, however, the highest income households also had the highest probability of having their taxes rise. As shown in column 2 of Table 3, the Tax Cuts and Jobs Act raised taxes on about 4.8% of all households, with the likelihood highest for those at the top of the income distribution—including 9.3% of households in the top 1%. The main reason some high-income taxpayers faced higher rates was the capping of the deduction for state and local taxes.

These effects were not geographically neutral. Altig et al. (2020) compare Republican-and Democratic-leaning states, and find that taxpayers in Republican-leaning states benefitted more from the Tax Cuts and Jobs Act—with a 1.6% increase in potential lifetime spending, compared to 1.3% for those in Democratic-leaning states. The differential is explained largely by limits on the deduction for state and local taxes, which most affected the very highest income earners, in states with the highest taxes, and with the highest property values (all three of which are more common in Democratic-leaning states). In the absence of that change, households in Democratic-leaning states would have benefitted more (2.1%) than in Republican-leaning states (1.9%). This outcome of the TCJA was likely seen as a feature, not a bug, by the Republican legislature that passed it.

If the individual income tax cuts are allowed to expire as scheduled at the end of 2025, the distributional effects in Table 3 would change. On average, taxes in 2027 would be little changed compared to before the 2017 law for taxpayers in the bottom 95% of the income distribution, but the top 1% would continue to receive a significant tax cut—0.9% of after-tax income or \$20,660 (Tax Policy Center 2017). That is, the tax cuts the Republicans made permanent in 2017 vastly disproportionately benefited the highest-income households relative to others.

Conventional distributional analyses do not consider the fact that tax cuts eventually have to be financed with higher taxes or lower spending (or perhaps higher inflation to reduce the real value of government debt). Gale et al. (2019) show that if the tax cuts are financed by cuts in entitlement spending, the net effect of the tax cut and the financing will be hugely regressive. Overall, 74% of households would experience a tax increase with this assumption about financing—including 100% of households in the bottom quintile. Alternatively, if the Tax Cuts and Jobs Act were financed proportionally to each household's pre-credit income tax liability, replicating the distributional properties of the existing current income tax system, the results would be more progressive.¹¹ Accounting for modest amounts of economic growth does not materially change these outcomes.

Expert opinion

The Tax Cuts and Jobs Act is difficult to assess. It was a complex piece of legislation, combining both the base-broadening and tax-cut features of previous reforms, with major changes to both corporate and individual taxes. Further, it was followed up by the COVID-19 pandemic, a once-in-a-lifetime shock to the economic system. As a result, simply asking economists, who could look at the evidence comprehensively and mentally adjust for these factors, seems useful.

The Kent A. Clark Center for Global Markets at the University of Chicago regularly polls a panel of leading academic economic experts on different issues. In November 2017, as Congress was considering the legislation that would eventually become Tax Cuts and Jobs Act, the Clark Center asked the group to respond to two statements:¹²

If the U.S. enacts a tax bill similar to those currently moving through the House and Senate—and assuming no other changes in tax or spending policy—U.S. GDP will be substantially higher a decade from now than under the status quo.

If the U.S. enacts a tax bill similar to those currently moving through the House and Senate—and assuming no other changes in tax or spending policy—the U.S. debt-to-GDP ratio will be substantially higher a decade from now than under the status quo.

Only 2% of respondents, weighted by their confidence, agreed that GDP would be substantially higher in the future (with the rest approximately equally divided between disagreeing, strongly disagreeing, and being uncertain). In contrast, 100% of experts (88% in the raw data, with the other 12% either uncertain or not answering and, in either of those cases, receiving zero weight in the confidence-weighted calculations) thought that the debt-to-GDP ratio would be substantially higher if TCJA were enacted.

In late 2023, in response to our request, the Center posed several more statements, asking respondents to compare the outcome “now, as a result of the passage of the TCJA, [relative to what it] would have been had the TCJA not been passed, and all else was equal.”¹³ We focus on responses to four outcomes: 1) U.S. GDP is substantially higher; 2) federal tax revenues are substantially lower; 3) corporate capital stock is substantially higher; and 4) real median wages are substantially higher.

Figure 5 shows that the responses for GDP and fiscal effects in 2017 remain consistent in the more recent survey. Relative to a no-TCJA world, only 8% of respondents agreed that GDP was substantially higher in 2023 than it would have been otherwise (and 51% disagreed or strongly disagreed); in contrast, 87% agreed or strongly agreed that revenues are substantially lower due to TCJA (and only 3% disagreed). Respondents showed significant uncertainty about GDP but not revenue. Only 1% agreed that real median wages were substantially higher in 2023 than they would have been without TCJA, in contrast to an overwhelming majority (73%) that disagreed or strongly disagreed. Results for the corporate capital stock were more mixed. About 27% agreed that it was substantially higher than it would have been without TCJA, 36% disagreed, and 38% were uncertain.¹⁴ Overall, the story that emerges from the experts is that the capital stock may have

increased, but real median wages and GDP changes seem very modest and revenues fell relative to a world without the TCJA. These judgments seem in accord with the evidence that has emerged.

Conclusion

Controversy over tax policy never really stops. In looking at the effects of tax policy on outcomes such as GDP and wages, causal identification is difficult, both by virtue of the nature of the law, which simultaneously legislated several countervailing forces, as well as the COVID-19 pandemic that makes long-term analysis, necessary for a full understanding of the potential dynamic effects, difficult. In 2025, the immediate short-run decision that policymakers face involves whether or how to extend the temporary provisions of the Tax Cuts and Jobs Act, which revolve around the individual income tax. But the broader issues remain regarding how the United States generates sufficient revenue to cover its expenses and the budgetary challenges will only become more salient in light of slowly growing revenues and looming shortfalls in the Social Security and Medicare trust funds.

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TABLE 1

Revenue Effects of Key Provisions of the Tax Cuts and Jobs Act

Provision	Revenue Effect 2018-2027 (\$ Billions)
Individual Changes, Total:	-1,127
New tax rate and bracket structure	-1,214
Expand the standard deduction and repeal personal exemptions	491
Index tax provisions to chained CPI	134
New pass-through business deduction	-415
Pass-through business loss limits	150
Expand Child Tax Credit (CTC) and new non-child dependent credit	-573
Repeal and modifications to itemized deductions	668
Increase Alternative Minimum Tax (AMT) exemption phaseout threshold	-637
Reforms to certain deductions and credits	25
Reforms to certain individual tax expenditures, including the ACA individual mandate	328
Double Estate Tax Exemption	-83
Corporate Changes, Total:	-654
Reduce corporate tax rate to 21%, repeal corporate AMT	-1,389
Net interest deduction capped at 30% of income	253
Changes to the treatment of investment	-86
Modification to net operating loss deductions	201
Amortize research & experimentation costs	120
Repeal of Domestic Production Deduction	98
Reforms to certain business tax expenditures	149

TABLE 1 CONT.

Provision	Revenue Effect 2018-2027 (\$ Billions)
International Changes, Total	324
Territorial System	-224
Special one-time repatriation rate	339
Other international reforms	210
TOTAL	-1,456

NOTES: This table reports Joint Committee on Taxation (2017) estimates of the revenue effects of major TCJA provisions, in broad categories reported by PWBM (2017). All estimates assume Joint Committee on Taxation provisions will sunset as planned under current law.

TABLE 2

Investment, by Major Category, Percent of GDP

Year	Equipment	Structures	Equipment + Structures	Intellectual Property	All
2010	4.51	2.71	7.22	3.49	10.71
2011	5.04	2.75	7.79	3.65	11.44
2012	5.47	3.05	8.52	3.75	12.26
2013	5.65	3.02	8.67	3.90	12.57
2014	5.95	3.27	9.22	4.05	13.26
2015	6.00	3.18	9.18	4.12	13.30
2016	5.84	3.03	8.87	4.43	13.29
2017	5.91	3.03	8.95	4.62	13.57
2018	6.08	3.12	9.20	4.88	14.08
2019	6.00	3.12	9.12	5.14	14.26

SOURCE: BEA (2024) Table 5.3.6, and authors' calculations.

NOTE: This table reports annual figures for real nonresidential fixed investment as a share of real GDP in three major categories – equipment, structures, and intellectual property. It also reports composite figures for investment in equipment and structures, the categories that received the largest change in their tax treatment under TCJA, and the total across all categories. Figure 2 shows trends in the same measure of investment on a quarterly basis.

TABLE 3

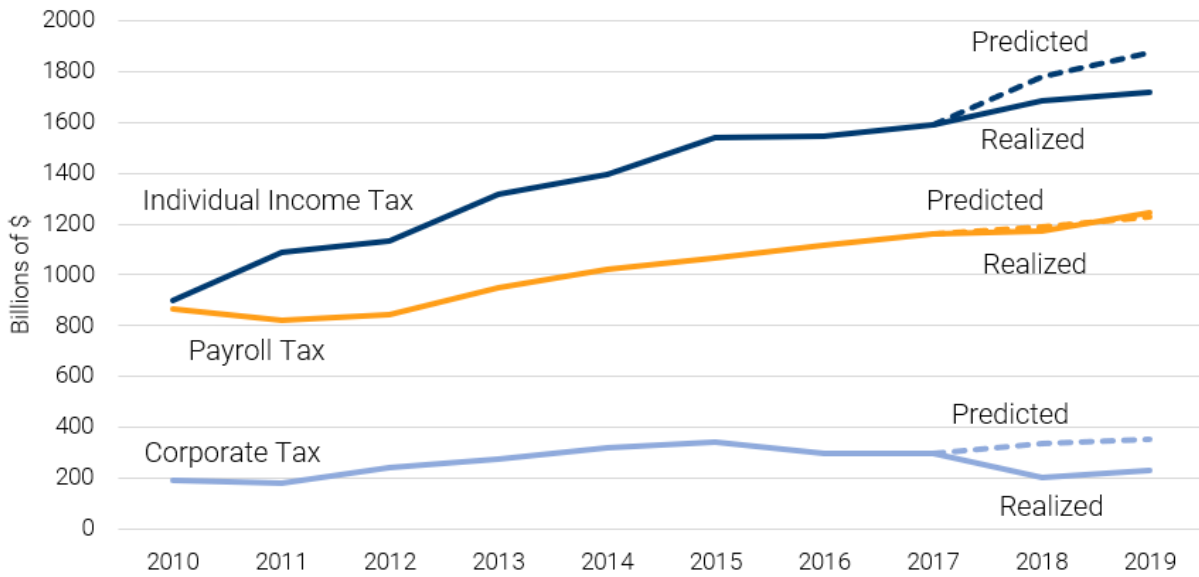
Distributional Effects of the Tax Cuts and Jobs Act

ECI Percentile	Percent of tax units with cut >\$10	Percent of tax units with increase >\$10	Change in after-tax income, percent	Change in after-tax income, dollars
Lowest quintile	53.9	1.2	0.4	60
Second quintile	86.8	4.6	1.2	380
Middle quintile	91.3	7.3	1.6	930
Fourth quintile	92.5	7.3	1.9	1,810
Top quintile	93.7	6.2	2.9	7,640
All	80.4	4.8	2.2	1,610
<i>Addendum</i>				
80–90th	92.3	7.6	2.0	2,970
90–95th	94.4	5.5	2.2	4,550
95–99th	97.3	2.7	4.1	13,480
99–99.9th	90.7	9.3	3.4	51,140
Top 0.1 Percent	83.7	16.2	2.7	193,380

SOURCE: Gale et al. (2019). The data include both filing and nonfiling tax units but not those who are dependents of other tax units. Tax units with negative adjusted gross income are excluded from their respective income class but included in the totals. The income measure used is Expanded Cash Income (ECI), a measure developed by the Tax Policy Center and explained in detail in Rosenberg (2013). Each income percentile contains an equal number of people. The dollar breaks (in 2022 dollars) are: 20 percent \$25,000; 40 percent \$48,600; 60 percent \$86,100; 80 percent \$149,400; 90 percent \$216,800; 95 percent \$307,900; 99 percent \$732,800; 99.9 percent \$3,439,900. Tax units with an increase includes all units with a change in federal tax burden of \$10 or more in absolute value.

FIGURE 1

Panel A: Actual and Projected Tax Revenues



NOTE: Panel A shows actual revenues from individual income, payroll, and corporate taxes between 2010 and 2019 (solid lines; CBO, 2020), along with CBO revenue projections from before TCJA was passed (dotted lines; CBO, 2017a).

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Panel B: Actual Corporate Tax Revenues



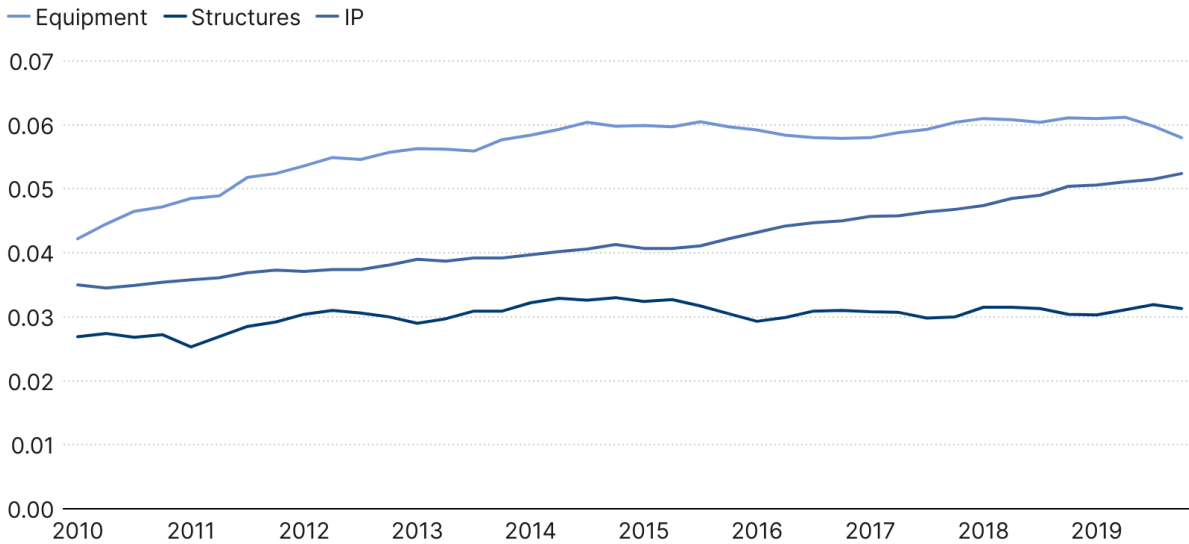
NOTE: Panel B shows real corporate tax revenues (from the BEA series 'Federal Government: Tax Receipts on Corporate Income'; available at <https://fred.stlouisfed.org/series/FCTAX>), inflation-adjusted in constant 1984 dollars.

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FIGURE 2

Nonresidential Fixed Investment

Share of GDP, Quarterly



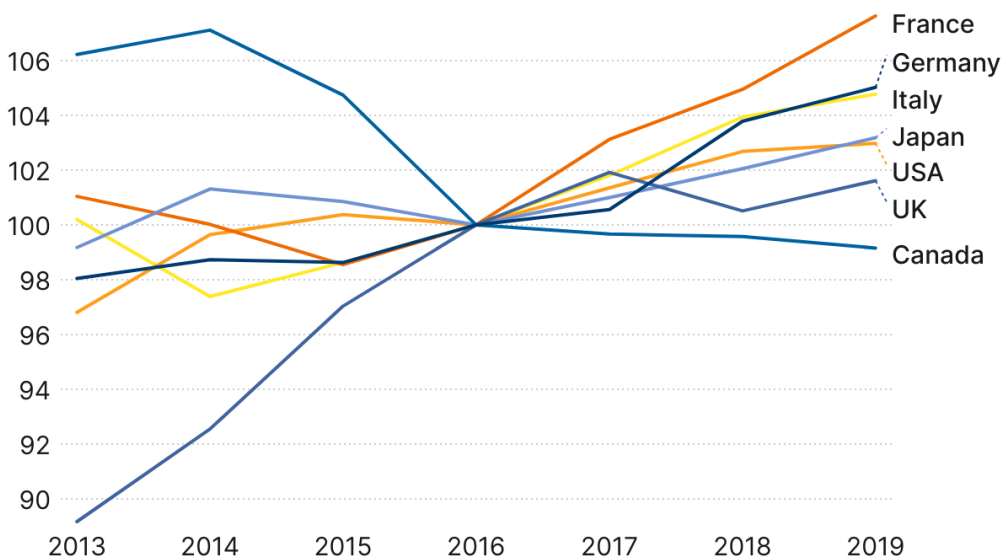
SOURCE: BEA (2024) Table 5.3.6, and authors' calculations. Note: This figure shows real nonresidential fixed investment in three major categories – equipment, structures, and intellectual property – as a share of real GDP on a quarterly basis from Q1 2010 to Q4 2019. The dotted line at Q4 2017 indicates the quarter when the first TCJA provisions began to take effect. 100% expensing was backdated to September 27, 2017, and most other provisions of the law took effect on January 1, 2018. Annual data on real investment as a share of real GDP are available in Table 2.

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FIGURE 3

Investment as a Share of GDP

Gross fixed capital formation, indexed (2016=100)



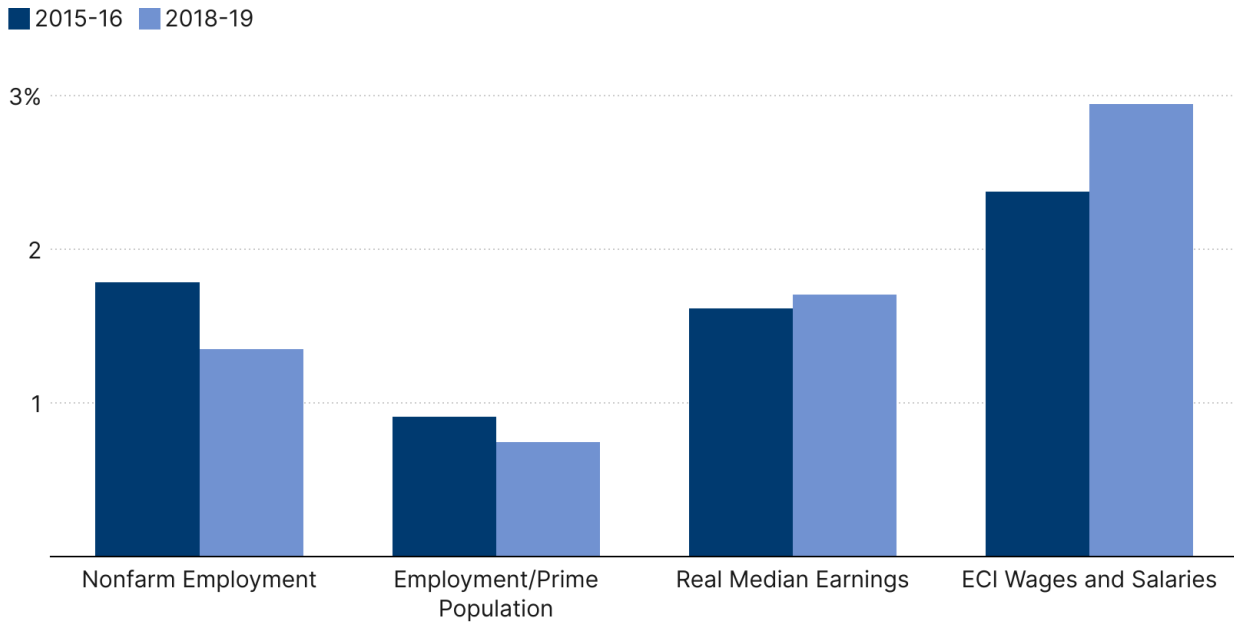
SOURCE: OECD (2024a, 2024b) and authors' calculations. This figure shows the level of investment as a fraction of GDP in each of the G7 countries: the United States, the United Kingdom, France, Germany, Japan, Italy, and Canada. The ratio of investment/GDP is indexed to 100 for each country in 2016 to compare changes in the ratio over time.

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FIGURE 4

Growth in Labor Market Indicators

Annualized growth, 2015-16 and 2018-19



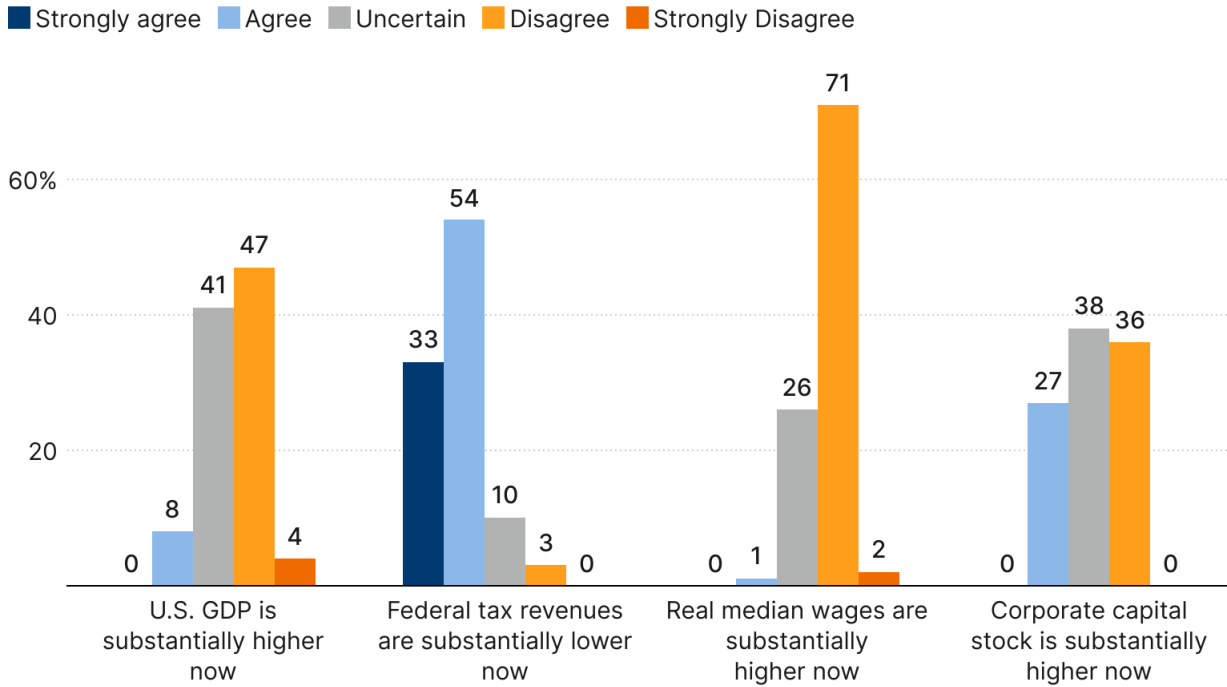
SOURCE: BLS (2024), BEA (2024a, 2024b, 2024c, 2024d).

NOTE: This figure shows annualized growth rates for four economic indicators: total nonfarm employment, the employment / prime population ratio, real median earnings, and Employer Cost Index (ECI) wages and salaries. Growth rates in 2015-16, before TCJA was developed, are shown in black; growth rates in 2018-19, after the law was implemented, are in grey.

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FIGURE 5

U.S. Economic Experts Panel on the Effects of the Tax Cuts and Jobs Act in 2023



SOURCE: Figures are from <https://www.kentclarkcenter.org/surveys/the-tax-cuts-and-jobs-act-tcja-of-2017/>.

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NOTE: This figure shows the results of a survey of economic experts conducted by the Kent Clark Center at the University of Chicago. Experts were asked to respond with their opinions on the following two statements: (1) If the United States enacts a tax bill similar to those currently moving through the House and Senate—and assuming no other changes in tax or spending policy—US GDP will be substantially higher a decade from now than under the status quo. (2) If the United States enacts a tax bill similar to those currently moving through the House and Senate—and assuming no other changes in tax or spending policy—the US debt-to-GDP ratio will be substantially higher a decade from now than under the status quo. Results are weighted by the experts’ confidence in their answers.

Endnotes

- 1 Auerbach (2018), Barro and Furman (2018), Gale et al. (2019), and Slemrod (2018) provide early analyses of the Tax Cuts and Jobs Act. The TCJA Tracker, <https://tax.kenaninstitute.unc.edu/what-do-we-know-about-the-effects-of-the-tax-cuts-and-jobs-act/> provides a repository of papers addressing effects of the Act.
- 2 By convention, the Joint Committee on Taxation estimates the revenue change of a tax plan while assuming that behavioral changes cannot increase the total amount of income. Republican lawmakers were generally in favor of using “dynamic scoring,” which would relax the fixed national income assumption, so that policies which changed total output would have a direct effect on tax revenue (Paletta, 2014). Proponents of dynamic scoring argued that this would make tax reform easier by allowing economic growth to pay for part of the “static” revenue loss (Hodge, 2015).
- 3 The Tax Reform Act of 1986 was subject of a symposium in the first issue of the *Journal of Economic Perspectives*. In particular, see Auerbach (1987), Hausman and Poterba (1987), McLure and Zodrow (1987), Musgrave (1987), and Pechman (1987).
- 4 These estimates exclude the impact of the FDII (“foreign-derived intangible income”) and GILTI (“global intangible low-taxed income”) provisions. FDII would reduce, but GILTI could raise or reduce, the average tax rate.
- 5 In order to see a tax-cut-induced expansion of the tax base, firms would need some time to respond to the changed tax incentives in the bill by, for example, repatriating cash that had been trapped abroad due to the change to a territorial system (Hanlon, Lester, Verdi, 2015), increasing investment during to bonus depreciation and lower tax rates (Ohrn, 2019), repatriating intellectual property from abroad due to changing (“foreign-derived intangible income” (FDII) provisions (Feng, Lipeles, Odintz and Weber, 2020), changing income shifting patterns from tax haven nations (Clausing, 2020), and so on. With time, those actions may expand the tax base and generate taxable income, which in turn could decrease the amount of revenue loss due to the tax cut. The CBO’s revenue estimates account for such factors.
- 6 For example, the Tax Policy Center estimated that the TCJA would have “little effect on GDP in 2027 (Page, Rosenberg, Nunns, Rohaly, and Berger, 2017).” The Tax Foundation (2017) estimated “a 1.7% increase in GDP over the long term. EY estimated “1.2% higher over the first five years (2018–22) and 0.8% higher over the second five years (2023–27)” (Pizzola, Carroll and Mackie, 2017). Penn Wharton Budget Model (2017) finds: “By 2040, we project that GDP is between 0.7% and 1.6% larger under our baseline assumptions.”
- 7 The studies above focus on GDP, which measures what is produced within a country. Given that the U.S. economy is open to world capital markets, a better measure of resources available to Americans is GNP, which starts with GDP, but then adds the foreign income of residents and subtracts the domestic income earned by foreigners. By increasing the after-tax return to domestic investment and increasing government borrowing, the Tax Cuts and Jobs Act raises capital inflows and thus increases future payments to foreign investors. As a result, while the Congressional Budget Office predicted that the 2017 law would raise the level of GDP by 0.5% in 2028, it also predicted that GNP would rise by only 0.1%. CBO also estimates that the rise in depreciation is about 0.1% of output in 2028—enough to erase the already meager boost to GNP. Thus, long-run incomes for Americans as measured by net national product (GNP minus depreciation) will be more or less unchanged by the TCJA under CBO’s projections (Gale and Page 2018).
- 8 Likewise, growth in U.S. investment in real terms (rather than as a share of GDP) from 2015-16 to 2018-19 was also unexceptional relative to other G-7 economies. Real investment in the U.S. economy grew about the same rate as in the United Kingdom, faster than Japan and Canada but slower than Italy, Germany, and France.
- 9 Gale and Thorpe (2024) provide a review of recent literature. It is also possible to distribute the tax according to uses of income. For example, Baker et al (2023) find that consumers bear a significant portion of the corporate tax. See Viard (2014) for further discussion.

- 10** While the results above are based on annual income measures, Auerbach et al. (2023) develop distributional measures of “lifetime spending power” as equal to the present value of a household’s expected future lifetime expenditures, including imputed rent and expected future bequests. In general, this measure suggests a dramatically more equal distribution of resources than income or wealth measured during a single year. In one part of the paper, the authors use their approach to estimate effects of the Tax Cuts and Jobs Act, assuming that all its provisions become permanent. The distributional effect of the Tax Cuts and Jobs Act using lifetime spending is slightly more progressive compared to annual income measures, but the overall general pattern that the TCJA provides great benefits to those with higher incomes, lifetime or annual, remains.
- 11** Accounting for these credits in financing the legislation would make the resulting law even more progressive, but seems unrealistic because many taxpayers have negative tax liabilities post credits, so financing the Tax Cuts and Jobs Act would mean giving them bigger credits while raising taxes on everyone else.
- 12** For details of the survey, see <https://www.kentclarkcenter.org/surveys/tax-reform-2/>. The survey reports the raw responses as well as confidence-weighted responses. We report the confidence-weighted responses in the text and note that switching to raw responses did not substantially change the results for any of the questions.
- 13** For details, see <https://www.kentclarkcenter.org/surveys/the-tax-cuts-and-jobs-act-tcja-of-2017/>. Notice that the 2017 questions about a decade later—2027—while the 2023 question ask about the status in 2023. In 2023, the survey also asked about charitable contributions. Almost two-thirds of respondents were uncertain whether contributions were higher than they otherwise would have been, a quarter thought they were, and an eighth thought they were not.
- 14** Questions about the Tax Cuts and Jobs Act did elicit more non-response and more uncertainty than other Clark Center polls. We downloaded the 36,890 answers to the 842 questions on the 432 issues about which the Clark Center has asked its experts over time. For questions about the TCJA, about 29% of TCJA questions were unanswered, and another 45% of the answers were “uncertain,” compared to a 14% rate of unanswered questions and a 20% rate of “uncertain” answers for questions on other subjects.

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