PRELIMINARY. COMMENTS WELCOME.

Taxing Business Under the TCJA:

The Good, The Bad, and the Ugly

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I. Introduction

How a country taxes its businesses is central to its economic performance. Businesses employ workers, make investments, develop innovative production techniques, and provide goods and services to each other and consumers. But the issues can be more complex than they appear. First, the nation's business landscape is remarkably diverse, and corporations are taxed differently from other types of businesses. Second, although businesses write tax checks to the government, they *don't* bear the ultimate burden of taxes—people do. Businesses pass along the cost of their taxes to consumers via higher prices, to workers via lower wages, to their owners and shareholders via lower returns, or to someone else. Third, the impact of taxing businesses depends not only on the headline tax rate, but also on the various provisions that are either "incentives," if you like them, or "loopholes," if you don't.

The Tax Cuts and Jobs Act of 2017 (TCJA, Public Law No. 115-97) created the most substantial changes in business taxation since, at least, the Tax Reform Act of 1986.[1] This paper reviews the changes made in TCJA and examines several key issues in the taxation of pass-through

[1] The original bill was commonly called the Tax Cuts and Jobs Act, but the official title was changed to "An Act to Provide for Reconciliation Pursuant to Titles II and V of the Concurrent Resolution on the Budget for Fiscal Year 2018" due to certain parliamentary rules.

organizations and corporations. Section II provides background information on pass-through businesses and their taxation. Section III does the same for corporations. Sections IV and V discuss key issues related to the taxation of pass-through income and corporations, respectively, now that TCJA has been implemented. We find that TCJA improved business taxes in some ways, but also made some existing problems worse and created some new concerns. Section VI concludes.

II. Pass-Through Businesses and TCJA

Although we often equate "business" with "corporation," about 95 percent of American businesses are not standard (or "C") corporations. Sole proprietorships are owned and often operated by a single person. Two or more people or entities can form partnerships. The owners of a limited liability corporation can choose to be taxed as a partnership or a traditional corporation. S-corporations are closely-held organizations and, unlike partnerships, they must distribute net income proportionally to each owner's share. Although these entities—collectively called "pass-throughs" for tax purposes—operate under a variety of rules, they have one thing in common. They don't face business-level taxes. Rather, the owners pay tax on their business earnings through the individual income tax.

Most sole proprietorships are small businesses. They are typically owned by moderate- and middle-income households and represent less than half of the owner's income.[2] But not all pass-throughs are small. Businesses with annual receipts above $50 million represent about 0.3 percent of S-corporations and partnerships, but they earn more than 30 percent of all receipts among those

[2] Gleckman (2016). In 2016, almost 40 percent of all business tax returns were sole proprietors whose income was less than $82,000 (in the third quintile or lower). For almost all of these, business income was a small fraction (much less than half) of their total income.

types of organizations.[3]

Pass-throughs have grown enormously in number and size since the early 1980s. In 1980, pass-throughs represented 83 percent of businesses but only 25 percent of net business income. By 2012, those figures had risen to 95 percent and 64 percent, respectively (Figure 1).[4]

Much of this change can be traced to a more favorable tax treatment of pass-throughs relative to corporations and a liberalization of rules concerning ownership of S-corporations. For example, the Tax Reform Act of 1986 reduced the top corporate income tax rate from 46 to 34 percent**,** but it reduced the top marginal tax rate on individual income from 50 to 28 percent. This change substantially increased the incentives for businesses to organize as pass-throughs rather than corporations.[5]

The rise in pass-through income and shift away from corporate income, combined with the higher effective tax rate on corporate income than on pass-through income, has cost the government increasing amounts of revenue over time, now totaling more than $100 billion a year.[6] The rise of pass through income also accounts for a significant share of the rise in reported income going to the top 1 percent over time. The share of income going to the top 1 percent doubled from 10 percent to 20 percent from 1980 to 2013; pass-through income accounted for 40 percent of that increase.[7]

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[3] Keightley (2012); Krupkin and Looney (2017); Tax Policy Center (2016). Owners of limited liability corporations and S-corporations enjoy the benefits of limited liability even though the businesses do not face corporate income tax.

[4] Internal Revenue Service (2015).

[5] The United States generally provides more favorable tax treatment to pass-throughs than other countries do. For example, Austria, Belgium, Canada, Italy, Mexico, Poland, and Spain require a business to incorporate and face the corporate income tax if they wish to have limited liability (U.S. Department of the Treasury 2007).

[6] Cooper et al. (2016).

[7] Cooper et al. (2016).

TCJA introduced a new deduction for income from pass-through business entities. Joint filers with taxable income below $315,000 ($157,500 for singles) can receive a 20 percent deduction of their qualified business income (QBI), regardless of business type. At higher income levels, the size of the deduction for QBI depends on the taxpayer's income, business type, and the wages paid and property owned by the business.[8] In general, pass-through businesses, like corporate income taxpayers, are subject to the TCJA's changes to the business tax base – including both income and deduction items, described further below.

Besides the pass-through income deduction created by the TCJA, small businesses receive other subsidies.[9] Most prominently, they can write off the first million dollars per year (as opposed to $500,000 per year before TCJA) of investment in equipment and software. Combined with the deduction for interest payments, they can generate a negative effective tax rate on new investments. In addition, capital gains on a business owner's "sweat equity" are treated very generously. Such income is not taxed until the business is sold, and, even then, it is taxed at preferential rates. If the owner holds the business until death, the "sweat equity" is never taxed under the income tax and is only taxed under the estate tax if the value reaches millions of dollars.

III. Corporations and TCJA

[8] For income from a "specified service trade or business," if taxable income is between $315,000 and $415,000 (for taxpayers who are married and filing jointly), the unlimited deduction for qualified business income phases out as income rises, and the deduction cannot exceed the applicable share of the greater of (a) 50 percent of W-2 wages paid by the business or (b) 25 percent of wages plus 2.5 percent of qualified property for the business. If taxable income is above $415,000, income from specified service trades or businesses is not eligible for the deduction. A specified service trade or business is defined as "any trade or business involving the performance of services in the fields of health, law, consulting, athletics, financial services, brokerage services, or any trade or business where the principal asset of such trade or business is the reputation or skill of one or more of its employees or owners, or which involves the performance of services that consist of investing and investment management trading, or dealing in securities, partnership interests, or commodities." For all other pass-through businesses, qualified business income does not phase out, and the 20 percent deduction is partially limited over the $315,000 to $415,000 taxable income range by the greater of either (a) 50 percent of W-2 wages for the business or (b) 25 percent of wages plus 2.5 percent of qualified property for the business. However, the limit is gradually applied over the income range. For a more detailed explanation, see Gale and Krupkin (2018).

[9] Gale and Brown (2013).

The other 5 percent of businesses are corporations (technically called C-corporations) and face a separate corporate income tax. The corporate income tax rate of 21 percent applies to the domestic income (and some components of foreign income, as discussed below) of U.S. corporations and the U.S. income of foreign corporations with permanent establishments here. It applies to corporate profits, calculated as gross business income (from the sale of goods and services, rents, royalties, interest, dividends, etc.) minus business costs that include employee compensation, supplies, advertising, a limited amount of interest payments, non-federal taxes, repairs, bad debts, and depreciation of assets (the decline in the value of an asset over time). The tax allows firms to immediately deduct 100 percent of their investments in equipment, though that feature is scheduled to phase out under current law beginning in 2023. Firms may deduct net operating losses for up to 80 percent of taxable income and carry forward unused losses indefinitely.

Payments remitted by big businesses account for almost the entire revenue yield of the corporate income tax. In 2013, for example, firms with assets of more than $2.5 billion accounted for just one out of every 1,800 corporations, but they paid 70 percent of all corporate income taxes.[10]

Although corporations pay the tax to the government, they do not bear its economic burden. Rather, they pass it along to individuals, via higher prices, lower wages, smaller dividends, or other adjustments. Capital owners bear about 75 percent of the burden, according to several analyses, with workers bearing the remaining 25 percent.[11] Because owners of capital bear so

[10] Internal Revenue Service (2016a).

[11] The Congressional Budget Office (2018b) and Joint Committee on Taxation (2013) allocate 25 percent of the burden to workers and 75 percent to capital. The Urban-Brookings Tax Policy Center allocates 20 percent of the burden to workers and 80 percent to owners of capital, the latter figure including 60 percent to shareholders and 20 percent to all holders of capital (Nunns 2012). The U.S. Treasury allocates about 18 percent to workers, and 82 percent to capital, of which 63 percent is assigned to shareholders and the rest to all capital (Cronin et al. 2012).

much of the burden, the corporate tax overall is very progressive (when the burden is assigned to households by income level). Households in the top 1 percent of the income distribution (including wages and capital income) bear almost half of the burden.[12]

TCJA reduced the corporate tax rate from 35 percent to 21 percent. For several decades, the U.S. corporate income tax rate was higher than the OECD average—which, critics argued, put U.S. corporations at a competitive disadvantage with those of other countries—but the 2017 tax act reduced the rate to about the OECD average (Figure 2).[13]

TCJA eliminated the graduated corporate rate schedule and repealed the corporate alternative minimum tax. The TCJA allowed for 100 percent bonus depreciation (full expensing) for qualified property for five years, phasing out by 20 percentage points per year starting in 2023. TCJA doubled the small business (section 179) expensing limit to $1,000,000 (with a $2,500,000 phase-out threshold) for qualified property. Several provisions of the TCJA broadened the tax base for measuring business income. These include limits on business deductions for net interest and net operating losses, elimination of the domestic production activities deduction, and, beginning in 2022, five-year amortization for research and experimentation expenditures instead of expensing.

TCJA made sweeping changes to the treatment of foreign source income and international financial flows. Traditionally, analysts have considered two canonical ways that countries can address the taxation of foreign-source income.[14] Under a worldwide system, a country taxes the worldwide income of companies that legally reside there (and their foreign affiliates). Under a territorial system, each country taxes the net income that companies earn within the borders of the

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[12] Congressional Budget Office (2018b). This is based on the assumption that 75 percent of the burden is borne by owners of capital (including shareholders), while 25 percent is borne by labor.

[13] OECD (2018).

[14] See Shaviro (2018b) for the various ways that this dichotomous characterization is inadequate.

country but does not tax net income earned abroad. Each of these two options represents idealized systems. In practice, no country has a pure worldwide or territorial system. For example, countries with territorial systems may impose taxes on passive income (interest, rents, royalties) that companies earn abroad, impose a minimum tax on resident companies' worldwide profits, or set restrictions on how companies can allocate income or expenses (deductions) across countries. Most OECD countries have a variant of a territorial system.

Under prior law, the United States taxed the active income of multinational firms on a worldwide basis, less a credit for foreign income taxes paid, with U.S. taxes deferred until the income was distributed to the U.S. parent company. (Passive income was taxed on a current basis). This system was complex, raised little revenue, and gave firms ways to reduce taxes on their domestic earnings by shifting income overseas. To avoid the tax, U.S. companies held more than $2.6 trillion in untaxed income in their foreign affiliates by 2015.[15] The ability of U.S. multinational corporations to defer – in some cases indefinitely – the tax on actively-earned foreign income and to avoid taxes on passively-earned foreign income made the U.S. tax system much closer to a territorial system than the official description would suggest. In 2010, U.S. corporations paid $27 billion of residual tax on foreign earnings and reported profits of $930 billion, for an average tax rate of about 3 percent.[16]

The TCJA created what might be called a modified territorial tax system. Corporations continue to owe U.S. taxes on the profits they earn in the United States, but TCJA exempted from taxation the dividends that domestic corporations receive from foreign corporations in which they own at least a 10 percent stake. To transition to the new system, TCJA created a new "deemed

[15] Joint Committee on Taxation (2016).

[16] Office of Tax Policy (2017).

repatriation" tax for previously accumulated and untaxed earnings of foreign subsidiaries of U.S. firms equal to 15.5 percent for cash and 8 percent for illiquid assets. Companies have eight years to pay the tax, with a back-loaded minimum payment schedule specified in the law.

With just those changes, the new system would have been close to pure territorial (one major exception being that passive income is still taxed on a current basis). But under such a system, firms would have a strong incentive to shift real investment and reported income to low-tax jurisdictions overseas and to shift deductions into the United States. The TCJA contained several provisions to reduce the extent to which companies take those actions.

First, TCJA imposed a 10.5 percent minimum tax without deferral on Global Intangible Low-Taxed Income (GILTI) – defined as profits earned abroad that exceed 10 percent of the adjusted basis in tangible property. Companies can use 80 percent of their foreign tax credits, calculated on a worldwide basis, to offset this minimum tax, making the GILTI provision applicable for foreign tax rates less than 13.125 percent. The GILTI tax rate increases from 10.5 percent to 13.125 percent for tax years 2026 and later.

Second, TCJA imposed a new base erosion and anti-abuse tax (BEAT) at a 10.5 percent rate on the sum of the corporation's taxable income plus deductible payments (excluding costs of goods sold) made to foreign affiliates.[17] Corporations pay the larger of the regular tax or the BEAT, which limits the ability of both foreign-resident and U.S.-resident multinationals to shift profits out of their U.S. affiliates.

Third, TCJA provided a deduction for foreign-derived intangible income (FDII) to encourage firms to hold intangible assets in their U.S. affiliates. FDII is income received from

[17] The tax is only levied on corporations with average annual gross receipts of at least $500 million and those that have made related party deductible payments exceeding 3 percent of the corporation's total deductions for that year. For this purpose, regular corporate tax liability is post-foreign tax credit, but pre-R&E tax credit.

exporting products whose intangible assets are held in the United States. After application of this new deduction, FDII is taxed at a rate of 13.125 percent through 2025 and 16.406 percent thereafter instead of the 21 percent rate applied to other domestic profits.

IV. Pass-Through Issues

The new deduction for pass-through businesses will cause numerous problems. The rules are inequitable; about 44 percent of the benefits go to taxpayers with incomes greater than $1,000,000 per year.[18] They provide windfall gains to owners who made investments in the past, which won't increase current investment. They will create enormous opportunities to game the tax system. As one example, called "cracking," doctors or lawyers might split (crack apart) their operations into two companies: one that provides medical or legal services, and another that contracts with the service provider and acts as a leasing firm that owns all the property and equipment.[19] The rules will also create incentives for people to relabel wage income as business income.

The overarching problem is that the rules do not make sense because they don't reflect any underlying, organized principles. Rather, they create distinctions that often do not have a sound basis in tax law, or in some cases, a verifiable basis. They function as "incoherent and unrationalized industrial policy."[20] At worst, the new pass-through rules will prove unadministrable and generate massive tax avoidance. They should be repealed, to eliminate the revenue cost, the inequity, and the tax administration headaches, and so that wages and non-corporate business income are taxed at the same rate.

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[18] Joint Committee on Taxation (2018).

[19] There are many more ways enterprising taxpayers can use this provision to reduce their taxes. For details and examples, see Kamin et al. (2018).

[20] Shaviro (2018a).

A. Avoidance and Evasion

It is worth exploring the impact of TCJA further on avoidance and evasion (this section) and on jobs and investment (section B). People can also use businesses to shelter or hide income. Empirical evidence shows that *higher* personal tax rates (at a time when business income and wages faced the same taxes) caused people to start businesses, presumably because owning a business offers the opportunity to shelter income or evade taxes.[21]

Furthermore, partnerships seem to invite opportunities to shelter income and avoid taxes. A partnership can be owned, in part or whole, by other partnerships, foreigners, corporations, tax-exempt entities, trusts, etc. According to a recent Treasury Department study, partnership income is "opaque" and "murky."[22] The study found that 20 percent of partnership income goes to partners that could not be traced in tax return data, and another 15 percent is earned in circular partnerships – a group of partnerships that collectively own each other. Both of these findings suggest high levels of tax avoidance. The study found that the average federal income tax rate on partnership was under 16 percent (pre-TCJA). How can this be, given that the vast proportion of partnership income goes to the top 1 percent? The murky aspects definitely play a role, again suggesting significant tax avoidance. Additionally, a lot of partnership income is received in the form of capital gains or dividends, which are taxed at preferred rates.

Regarding evasion, the IRS studies tax compliance using data from audits and other sources.[23] Compliance rates are highest when taxes are withheld and when income is reported to the government. For example, around 99 percent of wage income is accurately reported to the

[21] Bruce (2002); Gurley-Calvez and Bruce (2008).

[22] Cooper et al. (2016).

[23] Internal Revenue Service (2016b).

government. A problem arises for tips, though, which do not face tax withholding. This makes it the exception that proves the rule. For forms of income that feature cross reporting but no withholding, under-reporting rates are higher. For example, about 16 percent of partnership and S-corporation income is misreported. Compliance is lowest when there is no withholding or information reporting, a situation that characterizes most sole proprietorship income, where – not surprisingly – compliance is lower than for wages. What is surprising is how low compliance actually is – only 36 percent of what is usually called small business income is reported to the government.[24] That is, almost two-thirds of income earned by small businesses is *not reported* to the government – and thus is not taxed. However, it is not clear how much of the shortfall is due to outright cheating or to confusion about the tax laws. Plausibly, a significant portion is due to confusion and not malicious intent. On average, underreporting of pass-through income cost the government $125 billion annually from 2008-2010.[25] This represented about 0.8 percent of GDP in that period, or roughly $165 billion in the 2017 economy. By comparison, according to the Congressional Budget Office, the Tax Cuts and Jobs Act lowered revenues by about 0.8 – 1.0 percent of GDP in 2018.[26]

These findings have important implications for considering the impact of the pass-through rules enacted in TCJA. The fact that the provisions are complicated provides more avenues for sophisticated business owners to avoid taxes, and it provides more reasons for other owners to ignore the provisions and continue to not report their income. As a result, the pass-through provisions, if left in place, will likely increase tax avoidance considerably and lead to additional

[24] Internal Revenue Service (2016b, Table 6). This is for tax years 2008-2010 and is based on the net misreporting percentage of nonfarm proprietorships.

[25] Internal Revenue Service (2016b, Table 2).

[26] Congressional Budget Office (2018a).

non-reporting of income.

B. Jobs and Investment

The extent to which tax cuts help small businesses is a matter of some dispute. There is some evidence that lower tax rates can boost investment and hiring modestly among existing businesses, but there is a natural limit on how large such effects can be. First, the high rates of non-payment of taxes noted above indicate that tax changes should not be expected to affect a large share of sole proprietorship income. In other words, it is hard to see how changes in tax policy would affect the behavior of the sole proprietorships who do not report their income to the IRS anyway.

Whether tax policy should subsidize small businesses is a matter of further dispute. Commonly made claims to the effect that "most new jobs are created by small businesses" are misleading.[27] They mistake young firms – most of which are small – with small firms. Just as it is a mistake to confuse young people and small people, it is a mistake to provide policies for the entire small business sector based on the actions of young businesses. Young businesses account for a significant share of job growth and innovation, but employment growth is not common for small businesses. As they age, most small firms do not hire many, if any, new workers. As a result, policies that subsidize the entire small business sector do not make economic sense, even through the lens of innovation and job growth. For all of these reasons, TCJA's pass-through provisions are likely to have at best small effects on pass-through investment and employment patterns.

V. Corporate Tax Issues

A. Revenues

[27] Haltiwanger, Jarmin, and Miranda (2010).

Corporate tax revenues have fallen dramatically over time as a share of the economy. In 1950, the tax raised 3.7 percent of GDP in revenues. Revenues fell, as a share of GDP, to 2.3 percent in 1980 and 1.5 percent by 2017 (Figure 3). The TCJA is expected to continue these trends; under TJCA as written, corporate tax revenues are projected to fall to 1.2 percent of GDP in 2018 before rising to 1.5 percent by 2028. The increase is largely due to the phase-out of investment expensing beginning in 2023 and an increase of the GILTI rate in 2026.

The general long-term revenue decline is due in part to declines in the statutory and effective tax rate on corporate income from the 1986 changes noted above. But, largely, it is a testament to the ingenuity that powers tax avoidance strategies. Setting up a business as a pass-through entity is the clearest way to avoid the corporate tax, and in fact, pass-through activity has grown dramatically (Figure 1). Tax avoidance within the corporate sector has increased as well; between 2000 and 2015, corporate profits rose from 7 percent of GDP to 12 percent of GDP, but corporate tax revenues stayed relatively flat at around 2 percent of GDP (Figure 4). Stagnating corporate tax revenues in the face of rising corporate profits reflects increasingly aggressive international tax avoidance and other factors. Even with TCJA's foreign income provisions, overall corporate income tax revenue is expected to initially decline as a share of GDP relative to pre-TCJA levels (Figure 3).

B. Double Taxation and Differential Taxation of Assets

In the pre-TCJA standard textbook set-up, the returns to corporate equity holders were taxed twice: the corporation paid taxes on its profits, and individuals paid taxes when they received the profits as dividends or sold their stocks and realized capital gains. Double taxation raised the effective tax rate on corporate investments financed with equity. This raised the cost of making such investments, which reduced the level of investment and hence the rate of economic growth.

It also gave pass-through businesses more favorable tax treatment than corporations and encouraged firms to retain earnings rather than pay dividends. Because interest payments to debt holders were deductible for businesses, but dividend payments to shareholders were not, double taxation created a bias toward debt financing.

Nevertheless, the traditional emphasis on double taxation overstated the problem. Almost no corporate income was fully double-taxed. First, a large share of corporate profits was never taxed. Many corporations were able to pay much less than the statutory tax rate of 35 percent on their profits because they could take advantage of a wide array of tax preferences. Second, even when corporations paid tax on all of their profits, the taxation of dividends and capital gains at the individual level is light. About three-quarters of stock is held by parties that are not subject to dividend or capital gains taxation – tax-exempt entities, foreigners, or retirement saving plans.[28] And among those who are subject to dividend or capital gains taxation, individuals paid no more than 23.8 percent on realized capital gains and dividends, and even then, taxes on capital gains could be deferred until the asset was sold, further reducing effective tax rates.

Ideally, a tax system would be neutral – it would not influence business choices (except where externalities, like pollution, apply). This would allow investment choices to be made for business reasons, leading to the best level and allocation of investments for the economy. Under a neutral system, the marginal effective tax rate (METR) on each type of new investment would be the same, regardless of asset type, financing, business organization, etc. METR measures the combined effect of individual and corporate taxes on an investment's returns.

Uneven taxation – the *sina qua non* of a non-neutral system – has harmful economic effects. The special provisions that generate uneven taxation lead to investment and firm

[28] Rosenthal and Austin (2016).

formation choices driven by tax considerations rather than underlying economic criteria. They shrink the tax base, which then requires higher tax rates on other activity than would be the case in order to raise the same amount of revenue. They make the system more complex, adding administrative and compliance costs. They lead to overinvestment in certain areas and underinvestment in others. The net result is a smaller economy than would occur if METRs were evened out. A more even tax system would cause capital to move from currently less productive areas of the economy to currently more productive areas. This implies an opportunity to raise the size of the economy, even without having to raise saving (reduce consumption, or living standards) just by improving the allocation of investment.[29]

Table 1 shows that the numerous changes made in TCJA generally reduced or eliminated differences in the METR across business organizations, asset types, and financing options. First, the difference between the METR on corporate investment and pass-through investment declined post-TCJA. Before the tax act, the METR was 27.3 percent on corporate investment and 24.0 percent on pass-through investment. The TCJA reduced both rates, lowering the METR to 19.9 percent for corporations and 20.1 percent for pass-throughs. Thus, in terms of overall METR, corporate rates are about the same – indeed, slightly lower – than pass-through rates, on average.

Second, the difference between the METR on equity- versus debt-financed investment declined after TCJA. Before the tax act, corporations faced an METR of 34.4 percent on equity-financed investment and a METR of -23.4 percent on debt-financed investment, a more than 57 percentage point difference. After the tax act, the two METRs were 22.3 percent and 8.9 percent, respectively, a less than 14 percentage point difference. The differential between the METRs on

[29] Altig et al. (2001); Auerbach (1996); Auerbach and Kotlikoff (1987); Berkovec and Fulleron (1992); Carroll et al. (2006); deMooij (2011); Feld, Heckemeyer, and Overesch (2013); Gravelle (1994, 2014a); Skinner (1996).

equity- and debt-financed investments fell for pass-through businesses as well.

Third, differences between the taxation of equipment and structures more or less remained intact. For corporations, the METR fell by about 8 percentage points on equipment and 7 percentage points on structures. For pass-throughs, the METR fell by about 9 percentage points on equipment and 3 percentage points on structures. For each type of organization, there remained large differences in the METR between equipment and structures.

Fourth, overall METRs on intellectual property investments declined (and it started from a negative number) for both corporations and pass-through businesses. This is largely due to the METR on equity-financed intellectual property declining even though the METR on debt-financed intellectual property increased. Thus, the METR spread between equity- and debt-financed intellectual property greatly declined.

Fifth, even after TCJA, there remain large differences between the taxation of owner-occupied housing and other structures. Equity-financed owner-occupied housing faces negative effective tax rates because the income that an owner receives by renting to herself is not taxed, but the homeowner is allowed to take deductions for mortgage interest. The increased METR on debt-financed owner-occupied housing was largely due to the reduced mortgage interest deduction and the sharp decline in the share of homeowners who will itemize their deductions.

All of the results above refer to effective tax rates across broad range of investments. In contrast, under certain circumstances, the 2017 tax cut turned double taxation concerns on their head. Although corporate income is still taxed at both the business and individual levels, the sharp reduction in the corporate tax rate to 21 percent gives strong incentives for wealthy individuals without an immediate need for cash to shelter their income in corporations.[30] Virtually nothing prevents business taxpayers from switching from pass-through to corporation status – they only need to check a box on their tax form.

C. The Tax Treatment of Foreign Income

Some of the most significant changes in the 2017 tax law applied to the taxation of foreign income. International economic issues have grown dramatically in recent decades as communications and other technologies have made the world smaller and firms larger. Exports plus imports summed to 27 percent of GDP in 2017, compared to just 11 percent in 1970.[31]

There's no perfect way to treat foreign income under the tax code. The new international tax rules are clearly designed to combat corporate efforts to avoid taxes by moving assets and income overseas and dumping their costs into the United States. But the GILTI, BEAT, and FDII provisions create new categories of income and expenses that will take years for corporations and the government to sort out. Firms' efforts to find ways around these provisions will add compliance costs and require more IRS enforcement resources. The provisions contain some obvious flaws, and they will create a bewildering array of new problems.

GILTI has nothing, necessarily, to do with intangible income. It simply defines foreign income less a 10 percent return on foreign tangible assets as the tax base. Thus, it may miss its mark in important ways. It also gives firms unintended incentives to invest in tangible assets such as factories overseas. And because it's based on worldwide average tax rates rather than per country taxes, it gives firms incentives to shelter income in tax havens. There are also complicated

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[30] Kamin et al. (2018); Looney (2017). Certain rules related to personal holding companies and accumulated earnings limit the ability of wage earners simply to incorporate themselves to get the lower rate (Desai 2018).

[31] Bureau of Economic Analysis (2018).

interactions between GILTI and BEAT.[32]

BEAT is intended to reduce transfer pricing. It imposes a new minimum tax that disallows the deduction for certain payments that firms make to their foreign affiliates in order to limit firms' ability to shift U.S.-source income to low-tax foreign countries. While limiting transfer-pricing abuse is a laudable goal, there are numerous problems with the way BEAT aims to hit this target.

First, BEAT taxes the gross deductible payments (other than costs of goods sold) going out of the country, not the part of such payments that exceeds arms-length pricing. If it works as intended, BEAT will hurt the significant number of big businesses that use global supply chains, even if they're not engaging in abusive transfer pricing, since it implicitly assumes that the correct transfer price is zero in all cases.[33] Second, while it taxes all deductible payments (other than cost of goods sold) going out of the country, it ignores all transfer pricing issues for payments into the country. Third, the exemption for costs of goods sold gives firms incentives to hide transfer pricing within inventory sales – for example, by bundling other components into the cost of goods sold. Martin Sullivan, chief economist for *Tax Notes*, likens the BEAT to police giving a traffic ticket to anyone going one direction at any speed on a highway, while ignoring all traffic going the other direction, regardless of what speed it is travelling.[34]

FDII is supposed to subsidize the creation of exportable goods and services that use intangible capital housed in the United States. But under circumstances, the deduction can be claimed even if there is no production in the United States, no intangible capital deployed in the United States, and no sale (other than a "round trip" provision, in which a firm sells a product to a

[32] See Sullivan (2018b).

[33] Shaviro (2018b, 2018c).

[34] Sullivan (2018a).

foreigner who makes minimal changes to it and sells it back into the United States).[35]

In the future, GILTI provisions will probably need to be tightened and BEAT provisions will probably need to be reformed to conform more closely to transfer pricing issues. The FDII provisions should be repealed, however. They will not prove particularly helpful in stimulating investment, and they will likely face challenge from other countries in the World Trade Organization for violating a rule against selective export subsidies.

More generally, we don't yet know how other countries will respond to the recent tax legislation. They could plausibly challenge the BEAT as well, for what might seem a selective import tariff. And whether other nations will merely stand by and let the United States become a "low-corporate tax" country compared to many of its competitors is an open question. They could reduce their own corporate tax rates, continuing a "race to the bottom." They could otherwise strengthen tax incentives to attract reported profits and production.

VI. Conclusion

The TCJA made sweeping changes to the taxation of corporate and pass-through businesses. These changes have succeeded in lowering corporate effective marginal tax rates – relative to other countries and relative to pass-through businesses. As with any major set of changes, one expects there to be issues, but many of the problems created by TCJA stand out as particularly problematic, which may not be surprising given the haste with which the legislation was pursued. These concerns include the implementation of the pass-through deduction and the new provisions created to tax foreign-source income. Coupled with the decline in government revenue that TCJA has created, these provisions invite a prompt re-examination and adjustment of

[35] Sanchirico (2018).

the business tax provisions enacted by TCJA.

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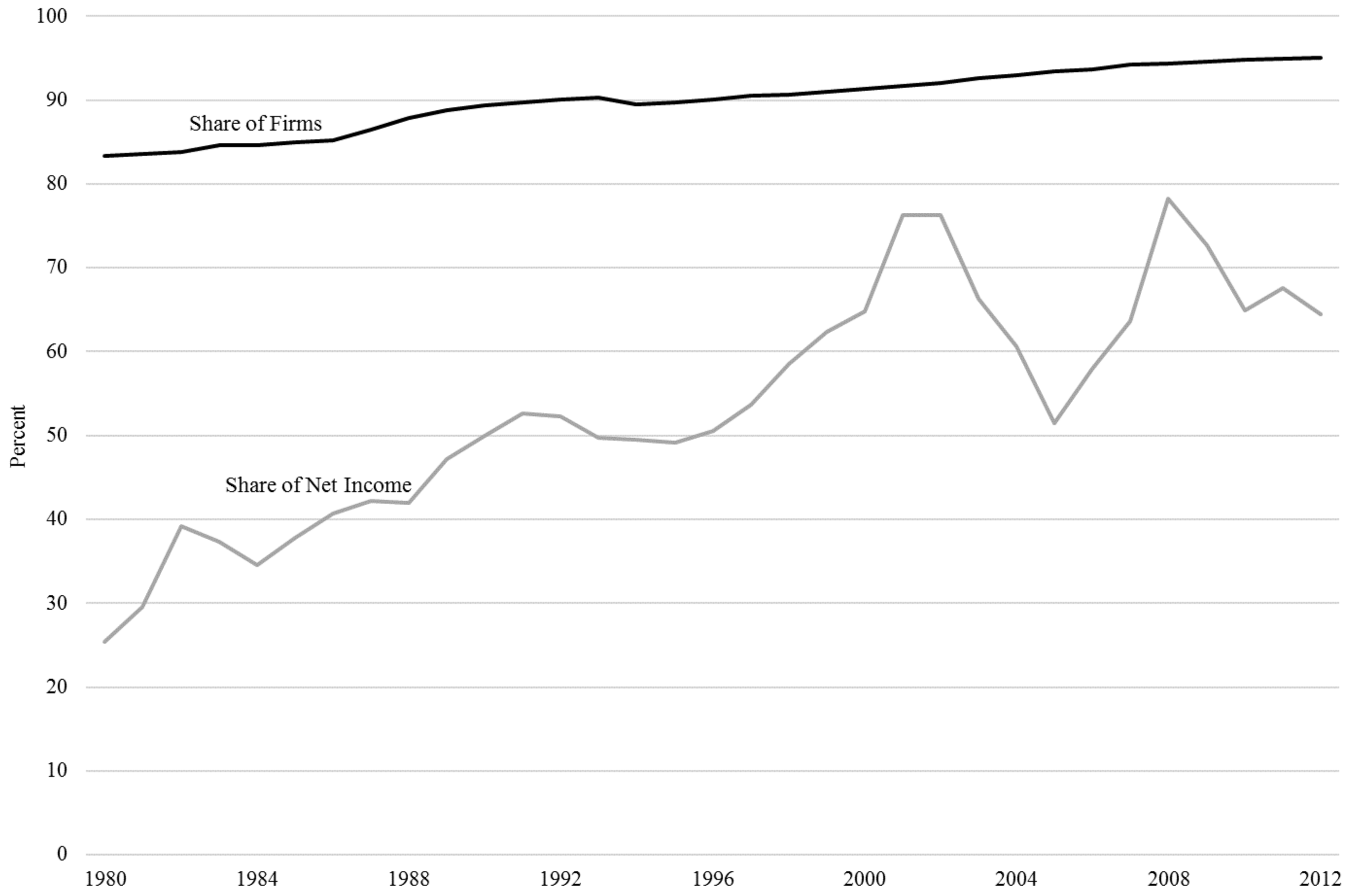
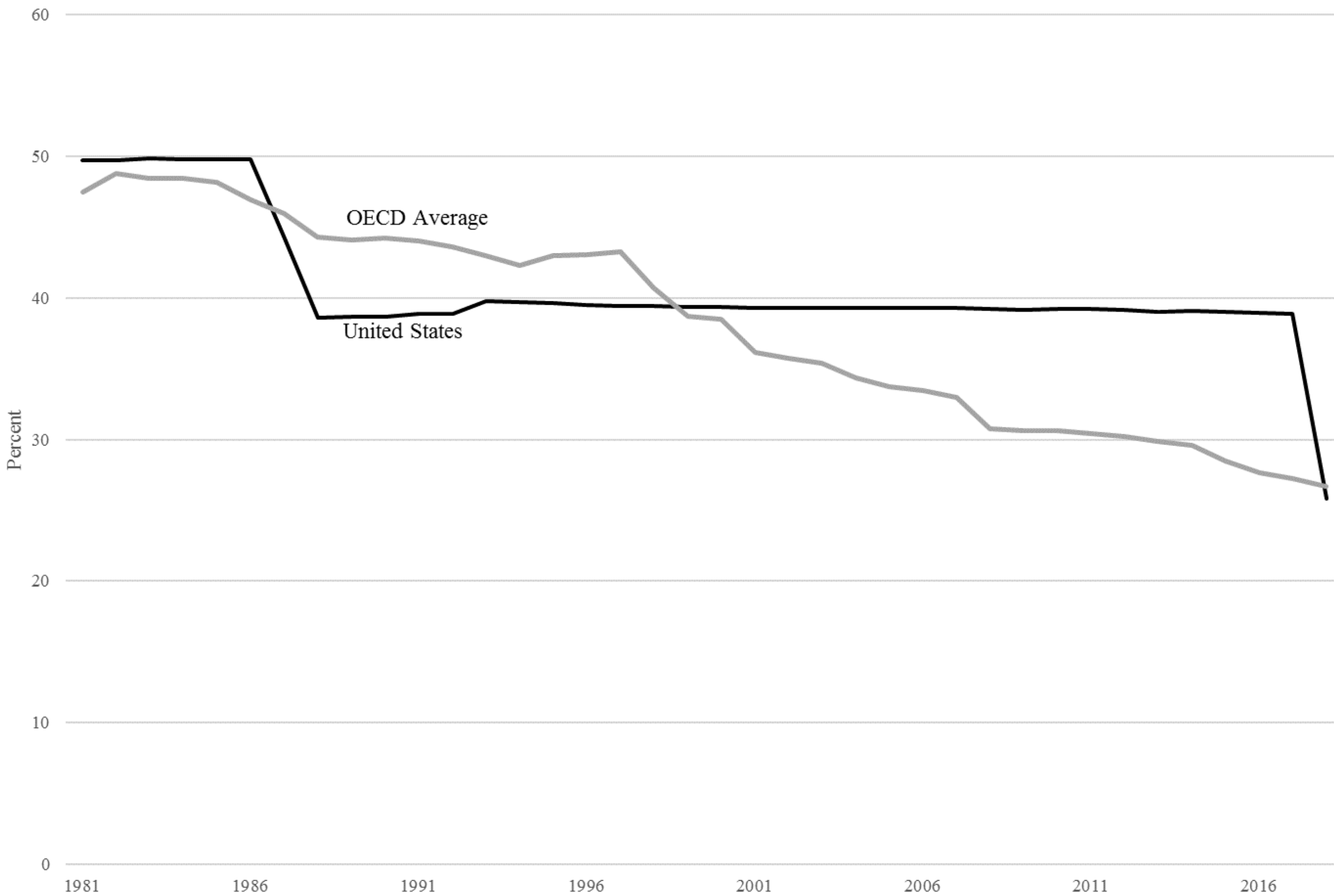
Figure 1. Pass-Through Share of Firms and Net Income, 1980-2012



Source: Internal Revenue Service (2015)

Figure 2. OECD vs. US Combined Corporate Tax Rates, 1981-2018



Source: OECD (2018)

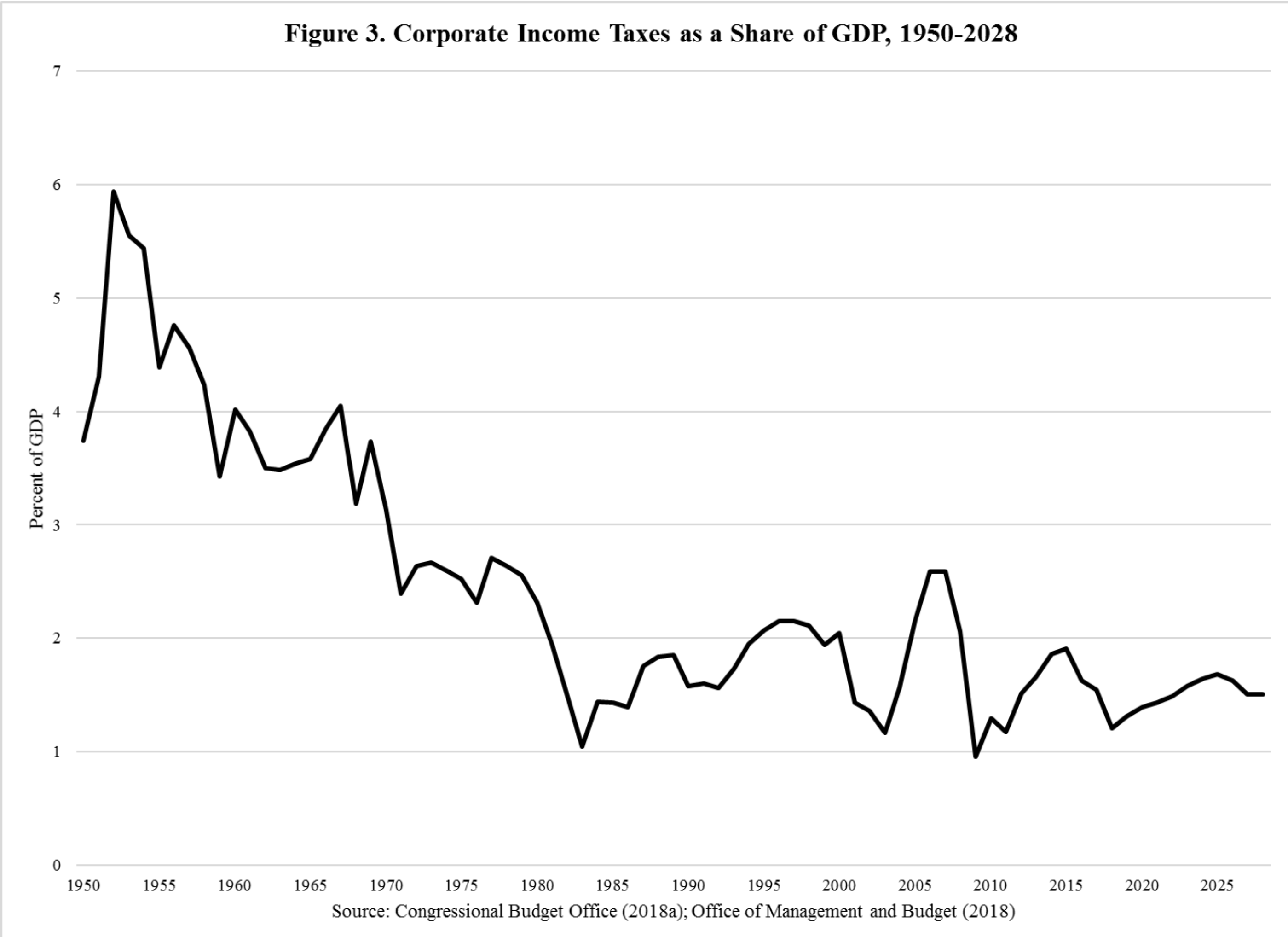
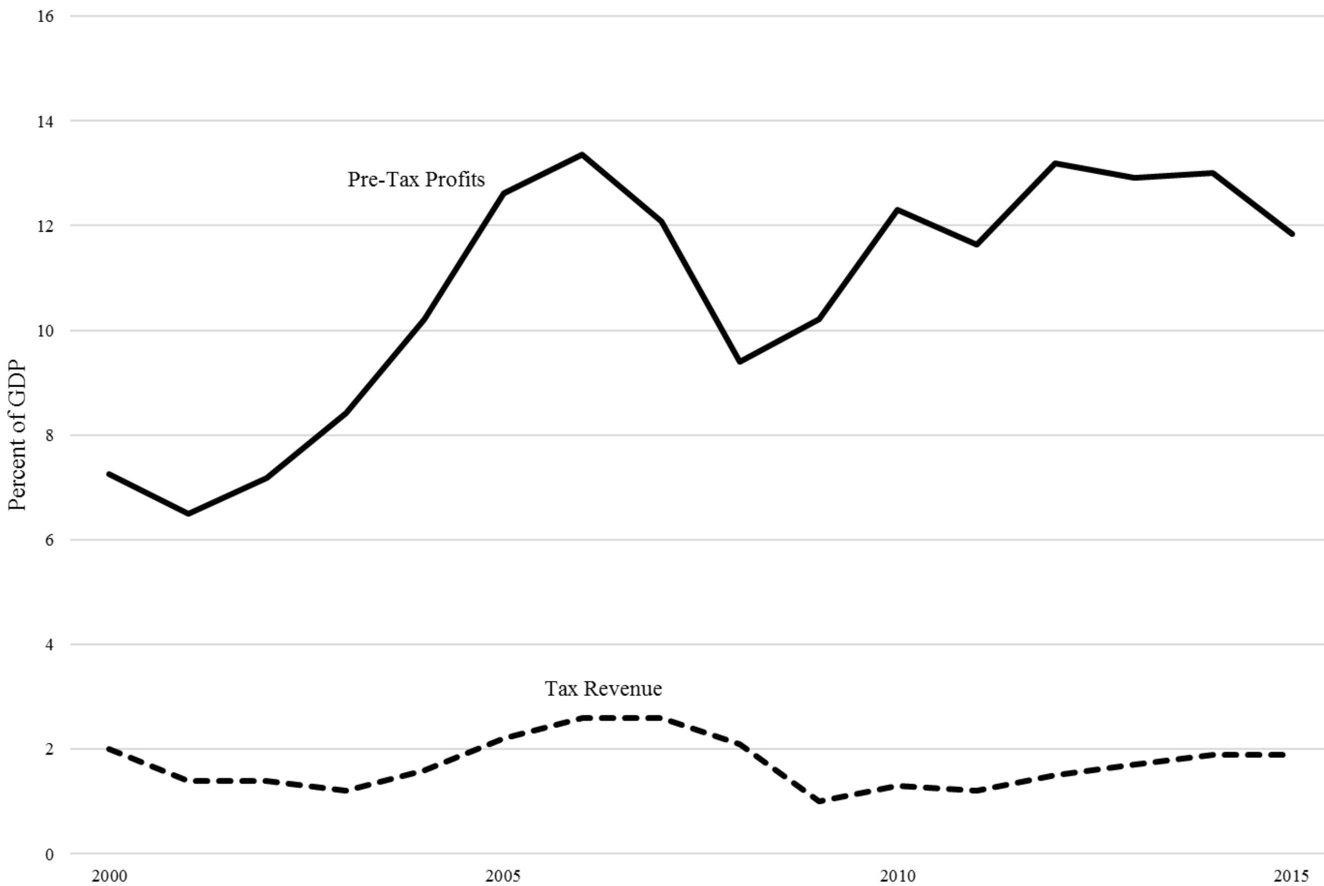


Figure 3. Corporate Income Taxes as a Share of GDP, 1950-2028
Percent of GDP
0
1
2
3
4
5
6
7
1950
1955
1960
1965
1970
1975
1980
1985
1990
1995
2000
2005
2010
2015
2020
2025
Source: Congressional Budget Office (2018a); Office of Management and Budget (2018)

Figure 4. Corporate Profits vs. Corporate Tax Revenue, 2000-2015



Source: Bureau of Economic Analysis (2016); Office of Management and Budget (2018)

Table 1. Effective Marginal Tax Rates on Capital Income, 2018 (percentage points)

	All Assets		Equipment		Structures		Intellectual Property		Owner-Occupied Housing	
	Pre-TCJA	**Post-TCJA**	**Pre-TCJA**	**Post-TCJA**	**Pre-TCJA**	**Post-TCJA**	**Pre-TCJA**	**Post-TCJA**	**Pre-TCJA**	**Post-TCJA**
C-Corporation - All	27.3	19.9	14.7	6.8	28.0	21.1	-1.5	-7.0		
Equity Financed	34.4	22.3	22.6	9.7	35.2	23.5	10.7	-1.2		
Debt Financed	-23.4	8.9	-38.2	-6.5	-20.0	10.7	-115.5	-37.4		
Pass-through - All	24.0	20.1	8.3	-1.2	25.0	21.7	-7.4	-15.7		
Equity Financed	28.8	22.7	13.7	2.4	29.8	24.3	2.2	-8.3		
Debt Financed	-7.5	6.3	-25.2	-20.5	-4.1	9.4	-90.2	-65.6		
Residential - All									-2.4	6.8
Equity Financed									-3.3	-0.4
Debt Financed									0.2	22.5

Source: Congressional Budget Office (2018a)