Prepared Testimony for the Hearing "The Disappearing Corporate Income Tax"

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Chairman Neal, Ranking Member Brady, and Members of the Committee:

Thank you for the opportunity to testify on the important topic of the disappearing corporate income tax. I am a Professor of the Practice of Economic Policy jointly at the Harvard Kennedy School and in the Economics Department at Harvard University. I am also a Non-resident Senior Fellow at the Peterson Institute for International Economics. I do research and teaching on a wide range of economic policy issues and I have worked on business tax reform, in particular, for more than fifteen years.

In my testimony today I will make four points:

1. Corporate tax collections are very low both in historical perspective and compared with other countries. This contributes to the overall low level of revenue.

2. The 2017 tax law (Public Law 115-97) is a major reason for this revenue loss, with its total cost likely to be even larger than was estimated when the law originally passed.

3. There is no evidence that the 2017 tax law has made a substantial contribution to investment or longer-term economic growth. In fact, business investment growth has slowed to nearly a halt while economic growth has been propped up by increases in government spending.

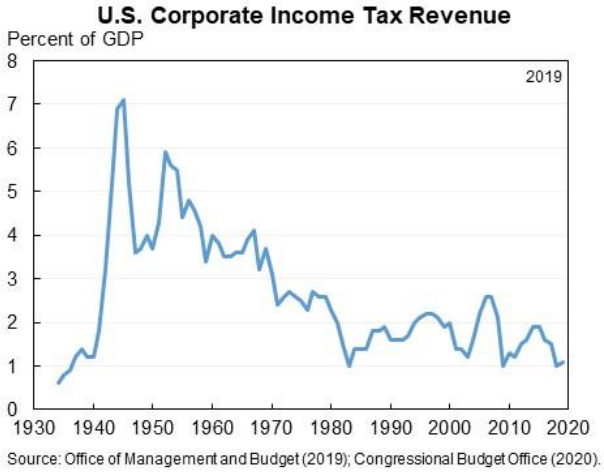
4. Going forward, a well-designed business tax reform could both increase revenue and encourage more investment and innovation.

I will now elaborate on each of these points.

Point #1: Corporate tax collections are very low in historical perspective and compared with other countries. This contributes to the overall low level of revenue

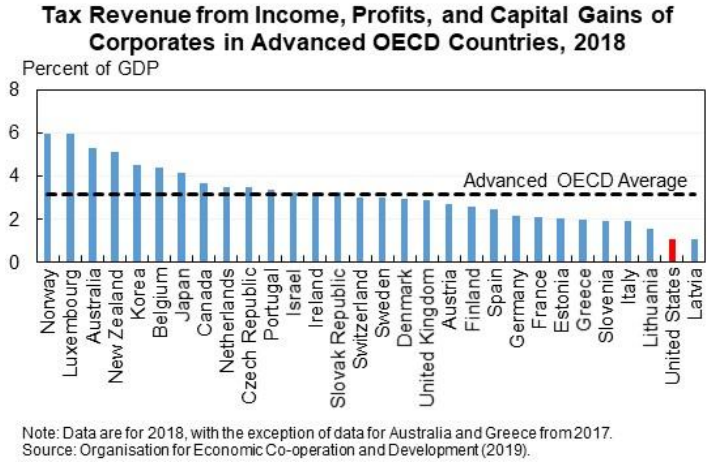
In 2019[1], the United States collected 1.1 percent of GDP in corporate income taxes, a number that is projected to rise slightly over the next decade, assuming a number of tax increases phase. As shown in Figure 1, this is near the lowest since the 1930s (outside of recessions or their immediate aftermaths). U.S. corporate taxes are less than one half their historic average.

Figure 1



In 2018, the last year for which comparable data are available, corporate tax collections were lower as a share of the economy in the United States than all but one of the advanced economies in the Organisation for Economic Co-operation and Development (OECD) as shown in Figure 2, and were one third the unweighted average for other advanced OECD economies.[2]

Figure 2



[1] All budget numbers are for fiscal years.

[2] Note that these figures do not account for tax revenue from pass-through businesses, which is collected through the individual income tax code. Even including this revenue, however, U.S. business taxes would still be low in both historical context and compared to other countries.

The low levels of corporate tax revenue are a major reason why overall federal revenue is very low; at 16.3 percent of GDP in 2019 it was the lowest it has been in the past 50 years outside of recessions and their aftermaths. By 2030, revenue will be 5 percent of GDP lower than noninterest spending under the alternative fiscal scenario. If this gap did not change, it would be consistent with the debt eventually rising to about 500 percent of GDP.

It is likely that future policymakers would—and should—act to prevent debt rising to 500 percent of GDP or more. It is uncertain, however, what steps they will take, and whether they would include further changes to corporate or other business taxes. As a result, the fiscal imbalance itself is an indirect source of uncertainty for America's businesses, an uncertainty that was exacerbated by the revenue losses caused by the 2017 tax law.

Point #2: The 2017 tax law contributed to this revenue loss, with its total cost likely to be even larger than was estimated when the law originally passed

The 2017 tax law was originally projected to lose $1.5 trillion over the 2018 to 2027 budget window, or $1.1 trillion including macroeconomic feedback (Joint Committee on Taxation [JCT] 2017b). CBO' subsequent revisions imply an even higher cost of about $2.0 trillion and $1.5 trillion respectively. These projections are broadly consistent with actual revenue growth since the law passed.

Projected revenue loss from over the ten-year budget window

At the time the 2017 tax law passed, the JCT estimated that it would result in $1.456 trillion of revenue loss from 2018 to 2027 absent macroeconomic feedback with just over half of this revenue loss attributable to tax cuts for corporations and passthroughs. The JCT estimated $1.071 trillion in revenue loss taking into account "additional effects resulting from macroeconomic analysis". In work published with Robert Barro we estimated that macroeconomic feedback would be somewhat smaller than JCT, resulting in revenue loss about $100 billion higher than in JCT's estimates (Barro and Furman 2018).

The Congressional Budget Office (CBO) did a re-estimation of the revenue impacts of the 2017 tax law that was based on both an updated economic and budget baseline and also based on "information about the implementation of the tax act learned in recent months," including the implementation of and taxpayer response to various business provisions. The re-estimate increased the estimated revenue loss over the 2018 to 2027 period to $1.890 trillion absent macroeconomic feedback and $1.369 trillion with macroeconomic feedback (CBO 2018).

CBO (2020) further raised its estimates of the costs of the 2017 tax law in its January 2020 *Economic and Budget Outlook*, estimating that its cost would be roughly $110 billion higher from 2020 to 2029 as a result of a reduction in "its projection of the amount of income subject to tax under certain provisions related to international business activities. Those changes, which lowered corporate receipts, reflect the implementation of the law (including regulations announced by the Internal Revenue Service over the past year), new tax and financial reporting data, and updated information on taxpayers' responses."

Overall the way the law has been implemented and the way taxpayers have responded to it has increased CBO's initial cost estimates by about 35 percent.

Moreover, CBO's cost estimates—by long-standing tradition—reflect the provisions passed by Congress. The law included numerous tax cuts that phase down or out (e.g., all the individual tax cuts and business equipment expensing) and numerous tax increases that phase in (e.g., amortization of research and development [R&D], expanded limits on interest deductions, and higher tax rates on low-taxed overseas income). If the 2019 provisions of the law were made permanent the total cost would be about $700 billion higher before macroeconomic feedback over the original 10-year window from 2018 to 2027 (Barro and Furman 2018)—and substantially more than that over the new 2021-2030 budget window (CBO 2020)

Actual revenue performance since the law is consistent with it having a large cost

The evolution of revenue since the enactment of the 2017 tax law suggests that these revenue estimates were accurate or perhaps even an understatement of the true cost of the law. Revenue was 17.2 percent of GDP in 2017 and normally would have been expected to rise as a result of economic performance since then. Instead it fell to 16.3 percent of GDP in 2019.

The revisions of the CBO forecasts since the passage of the 2017 tax law are consistent with the view that its original revenue estimates were accurate or perhaps even an understatement of the true cost of the law. CBO lowered its revenue baseline in April 2018 more than entirely due to the passage of the 2017 tax law—economic and technical changes went in the other direction. Since then CBO has lowered the revenue baseline further. In total, actual revenues in FY 2019 were $224 billion (1.5 percent of GDP) below CBO's pre-tax law forecast, reflecting both the revenue reduction they originally anticipated and additional revenue loss that has occurred subsequently, as shown in Table 1. Projected revenues for 2020 are down by a similar amount.

Table 1
Change in Projected Revenue Following Passage of the 2017 Tax Law
(Billions of Dollars)

	Change Immediately After Passage		Subsequent Change		Total Change	
	2019	**2020**	**2019**	**2020**	**2019**	**2020**
Individual	-89	-100	-26	-41	-115	-141
Corporate	-68	-73	-46	-74	-114	-147
Customs duties	2	2	30	35	32	37
Other	-42	-5	15	35	-28	30
Total	**-197**	**-176**	**-27**	**-46**	**-224**	**-221**

Note: Components may not sum to total due to rounding.
Source: Congressional Budget Office (2017, 2018b, 2020); author's calculations.

The fact that CBO's January 2020 revenue baseline has fallen so much relative to the one it published in June 2017 reflects a combination of two sets of factors. The first, and likely largest, is unanticipated economic and technical developments that are unrelated to the tax law. In effect,

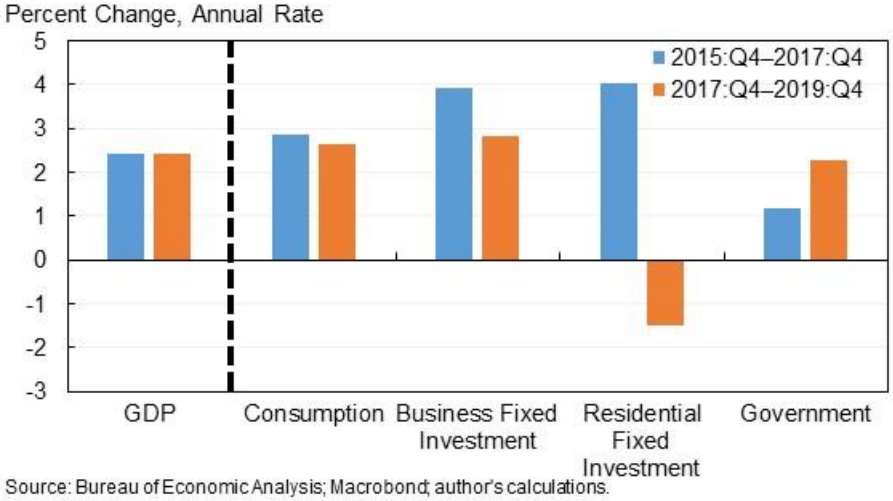
CBO's June 2017 revenue baseline was too high. The second is that the tax law has resulted in larger revenue reductions than originally estimated due to a combination of specific regulatory implementation decisions and an improved understanding of the effect of the law, including but likely not limited to the $110 billion explicitly identified by CBO.

Overall CBO currently projects total revenue of $41.4 trillion from 2018 to 2027, down $1.6 trillion from their $43.0 projection prior to the passage of the 2017 tax law. About half of that total revenue shortfall is due to lower corporate taxes.

Point #3: There is no evidence that the 2017 tax law has made a substantial contribution to investment or longer-term economic growth

GDP growth did not increase following the 2017 tax law: it was 2.4 percent in the eight quarters leading up to the law and 2.4 percent in the eight quarters since the law, as shown in Figure 3. The major private domestic components of GDP slowed in the two years since the 2017 tax law, including slowing consumption growth, business fixed investment growth and residential investment growth. In contrast, government expenditures and investments grew at a faster pace.

Figure 3
Real GDP Growth Before and After Passage of 2017 Tax Law

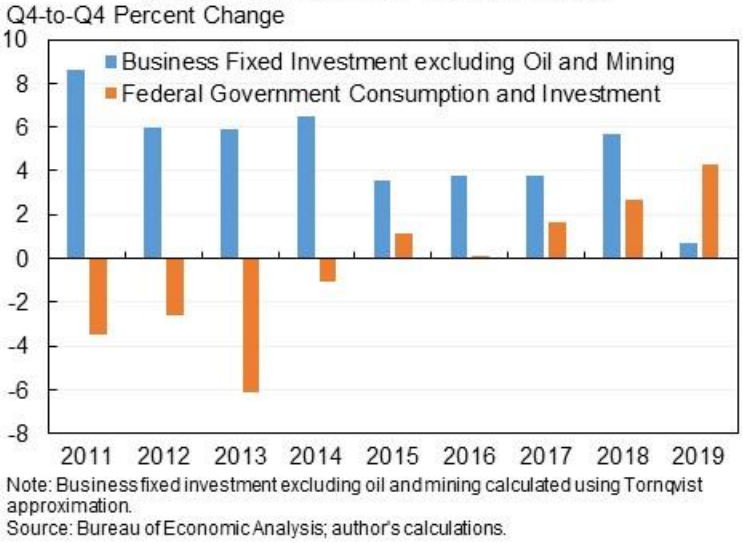


Source: Bureau of Economic Analysis; Macrobond; author's calculations.

Growth in 2019 was 2.3 percent (all annual macroeconomic data are Q4/Q4), with the lowest growth of business fixed investment excluding the volatile oil and mining category[3] and the highest growth of federal spending since the end of the recession as shown in Figure 4.

[3] In 2019, business fixed investment growth was negative, at -0.1 percent but the decline was driven by the volatile categories of oil and mining equipment and structures. The Bureau of Economic Analysis (BEA) does not publish estimates of business fixed investment excluding these categories so I do my own Tornqvist approximation using the BEA data—calculating that it grew 0.7 percent for 2019.

Figure 4
Growth of Real GDP Components



Note: Business fixed investment excluding oil and mining calculated using Tornqvist approximation.
Source: Bureau of Economic Analysis; author's calculations.

The macroeconomic data over the last year has been affected by many factors: the 2017 tax law, the large spending increases in 2018 and 2019, the tariff increases, changes in the price of oil, a longer-term trend of increased investment in software, and other changes in the domestic and global economy. It is impossible to extract the signal of the causal impact of the 2017 tax law from all of the noise of the other factors. Moreover even if we could do this signal extraction for 2018 and 2019 it would not tell us about the longer-term impacts of the tax law, which could be larger than the 2018 and 2019 effects (as capital increases accumulate over time) or smaller than the 2018 and 2019 effects (as temporary stimulus wears off and the economic costs of deficits rise).

Nevertheless, we can try to tease out the causal effects of the tax law on investment and what they might mean for longer-term economic growth. The macroeconomic data to date appear to rule out the immediate and large effects on investment that were predicted by many cheerleaders of the 2017 tax law and provide no reason to update the *ex ante* projections of minimal longer-term growth effects made by a range of economic modelers.

Analyses by both the Congressional Research Service and the Penn Wharton Budget Model have reached a similar conclusion, finding that there is little reason to believe the 2017 tax law substantially boosted investment to date and that to the degree some components of investment initially rose it was more due to rising oil prices than changing tax laws (Gravelle and Marples 2019; Arnon 2019).

Other macroeconomic factors have had offsetting effects and do not explain the weakness of investment

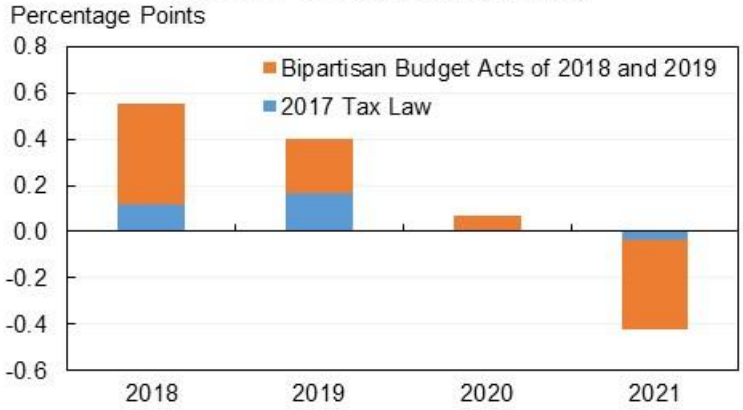
Although it is impossible to precisely disentangle the 2017 tax law from the many other factors affecting the macroeconomy in 2018 and 2019, it appears that most of the other unexpected macroeconomic developments were, on balance, positive. This suggests that they do not explain

away the weak performance of investment. In particular, three broad factors likely affected investment in different directions:

1. Deficit-financed fiscal stimulus temporarily boosted economic growth in 2018 and 2019 by about ¾ percentage point annually. The combination of the tax cuts in the 2017 tax law and the spending increases in the Bipartisan Budget Acts of 2018 and 2019 temporarily boosted aggregate demand and thus temporarily increased growth through a standard Keynesian channel. This increase in growth would be expected to boost investment through an accelerator mechanism but with all of these effects being temporary. Overall, as shown in Figure 5, my estimates find that the stimulus was substantial and more attributable to the spending increases than the tax cuts. Moreover, it is scheduled to diminish in 2020 and reverse in 2021.

Figure 5

Effect of 2017–2019 Fiscal Stimulus Measures on Real GDP Growth Rate (Q4/Q4)



Note: Assumes multipliers in CEA (2009) report scaled based on CBO multipliers as reported in CEA (2014).
Source: Congressional Budget Office (2017; 2018a, 2019a, 2019c); Joint Committee on Taxation (2017a); Council of Economic Advisers (2009; 2014); author's calculations.

2. Monetary policy has been more accommodative than expected. At the time the tax law passed, Federal Reserve officials projected that the federal funds rate would be 2.7 at the end of 2019. Instead it was 1.625. The change in the stance of monetary policy has been reflected in long-term interest rates, with the yield on the 10-year Treasury note currently at around 1.6 percent—much lower than the 3.4 percent that had been expected for 2020. This unexpectedly loose monetary policy should have led to investment increases unrelated to the 2017 tax law.

3. Tariff increases temporarily reduced economic growth, plausibly by something like ¼ percent of GDP. The escalation of tariffs against China and the rise in trade tensions in general had a temporary and countervailing negative impact on growth. A range of macroeconomic analysts have put the impact around ¼ percentage point off the annual GDP growth rate over this period although there is considerable uncertainty around that estimate and the temporary negative effects on business investment were likely proportionately larger.

On balance, the combined effect of these three factors, is, if anything, more likely to have increased investment growth than decreased it.

Other sectoral factors have had offsetting effects and also do not explain the overall weakness of investment

In addition to the aggregate macroeconomic factors, a number of factors affected particular sectors—again with some pushing investment up, others pulling investment down, but overall not changing the larger story about the absence of any evidence of a substantial 2017 tax law-driven increase in investment.

Table 2 compares the growth rates of several different components of investment in the eight quarters before and after the tax law passed. The annual growth rate of the overall business fixed investment category fell by 1.1 percentage point in the period following the law relative to the period before the law.

Table 2
Business Fixed Investment Growth Before and After the 2017 Tax Law

	Percent Change, Annual Rate		
	2015:Q4–2017:Q4	2017:Q4–2019:Q4	**Difference (p.p.)**
Business Fixed Investment	3.9	2.8	**-1.1**
Equipment	3.5	1.7	**-1.7**
Equipment excl. Oil and Mining	*3.4*	*1.9*	***-1.5***
Oil and Mining Equipment	*5.3*	*-7.4*	***-12.7***
Structures	2.9	-2.3	**-5.2**
Structures excl. Oil and Mining	*2.1*	*-2.4*	***-4.5***
Oil and Mining Structures	*6.3*	*-2.3*	***-8.7***
Intellectual Property	5.3	7.8	**2.4**
Software	*8.4*	*11.0*	***2.6***
Research and Development	*3.3*	*5.9*	***2.5***
Entertainment, Literary, and Artistic Originals	*2.8*	*3.9*	***1.1***
Memo:			
Equipment and Structures	3.2	0.3	**-2.9**
Equipment and Structures excl. Oil and Mining	*3.0*	*0.6*	***-2.3***
Oil and Mining Equipment and Structures	*6.1*	*-3.2*	***-9.3***

Note: Results for some series calculated using Tornqvist approximation.
Source: Bureau of Economic Analysis; author's calculations.

Three sectoral stories are notable:

1. The rapid growth in software and the substantial pickup in investment in research and development boosted investment in the last two years for reasons unrelated to the tax law. These changes were driven by the changing business use of technology in the economy, and has nothing to do with the 2017 tax law, which actually raised effective tax rates on many of these types of investment (research and development was previously expensed, so the main impact of the reform's rate reduction was to reduce the value of the interest deduction).

2. Oil prices levelling off and declining in 2018 and 2019, subtracted from investment for reasons unrelated to the tax law. Investment in oil and mining equipment and structures rose in the period preceding the law and fell in the period following the law. This shift was more due to rises and falls in the price of the oil than any changes in tax incentives. Excluding investment in oil and gas, however, investment growth still slowed considerably in the period following the tax law.

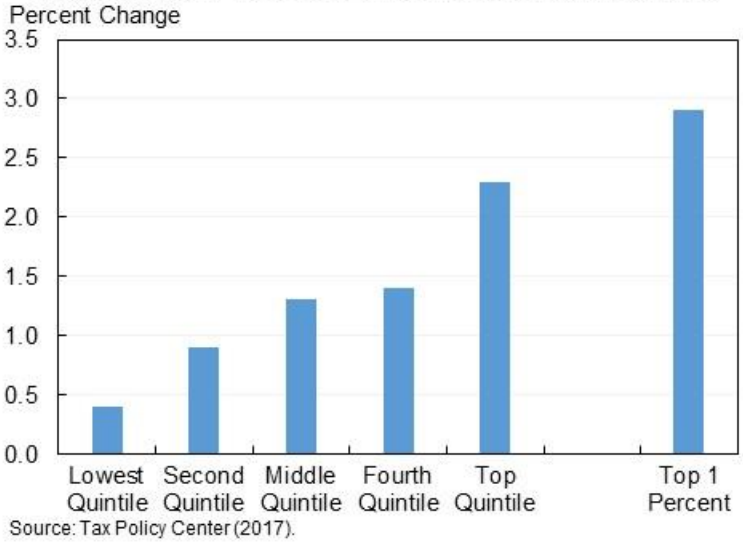
3. The grounding of the Boeing 737 MAX reduced investment for reasons unrelated to the tax law. This has reduced investment in the airline sector with negative spillovers to other sectors as well. It is unlikely, however, to be large enough to explain the broad-based weakness in equipment and structures investment in 2019, with investment declining in every major equipment and structure sector reported by BEA with the exception of information processing equipment.

Overall, the decline of business investment growth in the period following the tax cut relative to the period preceding it is similar whether looking at the headline number or when adding and subtracting special factors. Moreover, the components of investment that saw the largest effective marginal rate reductions under the 2017 tax law have fallen since the law went into effect while the components that saw little change or even increases in their effective marginal rates have seen increases—also suggesting little reason to believe the effective rate reductions provided a big impetus for additional investment in the last two years.

Changes in the composition of income, tilted more towards corporate profits and high-income individuals

The tax law has not perceptibly changed the total amount of GDP but it has changed its distribution. Figure 6 shows the percentage change in after-tax income from the 2017 tax law itself as estimated by the Tax Policy Center. It shows that the law barely increased incomes for the bottom quintile and resulted in twice the income gains for the top 1 percent relative to the middle quintile, increasing after-tax inequality.

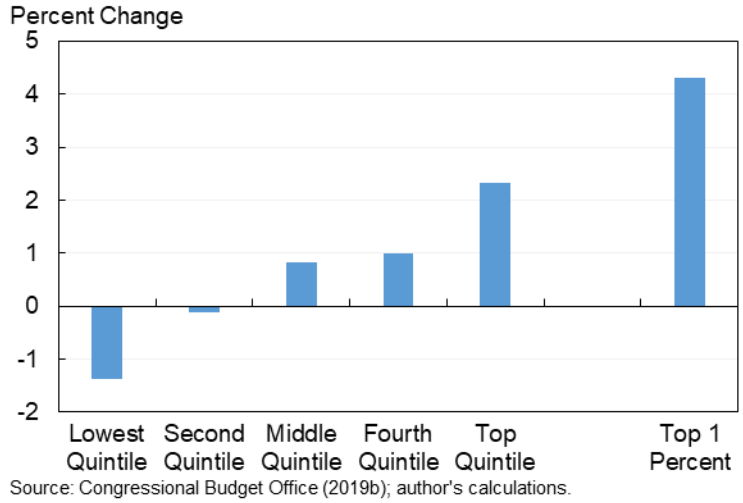
Figure 6
Effect of 2017 Tax Law on After-tax Income, 2025



Source: Tax Policy Center (2017).

The Tax Policy Center estimates reflect just the tax law itself. Eventually the revenue losses would need to be made up in some manner, potentially including spending cuts. A preview of what this might be like is provided by the CBO (2019b) projections of the distribution of income before and after taxes and transfers in 2021. CBO shows that, from 2016 to 2021, incomes after taxes and transfers are projected to rise more quickly than those before taxes and transfers for households at the top of the distribution while the converse is true for households at the bottom. Overall CBO's estimates imply an even more regressive set of changes in after-tax income beyond those resulting from the 2017 tax law, such as administrative changes designed to restrict low-income programs. All told, relative to the continuation of 2016 tax-and-transfer rates, after-tax incomes fall for the bottom two quintiles and rise sharply for the top 1 percent, as shown in Figure 7.

Figure 7
Effect of Changes to Taxes and Transfers Since 2016 on Income After Taxes and Transfers, 2021



Source: Congressional Budget Office (2019b); author's calculations.

No reason to increase the minimal growth forecasts based on ex ante *estimates of the law*

Nothing in the performance of the economy since the 2017 tax law provides a reason to believe that its effects were larger than initially estimated; if anything the data would suggest some downward revision in the *ex ante* forecasts. Overall both GDP and investment underperform the forecast. As discussed above, this underperformance is for many reasons, but at the very least it provides no basis for believing the tax law had larger effects than originally anticipated.

The *ex ante* estimates of the impact of the 2017 tax law on growth over the next decade were based on economic analysis of what its impact likely would be. A variety of public and private sources had largely convergent estimates, generally showing growth effects between 0 and 0.05 percentage point per year (for context, reported growth rates of, for example, exactly 2.1 percent would still be reported as 2.1 even with these increases because they round to less than 0.1 percent). Any of these effects would be essentially undetectable. Table 3 shows a range of estimates, including my own estimate in a paper with Robert Barro that the law as passed would lead to an increase in the real growth rate of GDP of 0.02 percentage point per year after accounting for crowd out (Barro and Furman 2018).

Table 3
Summary of Macroeconomic Analyses of the 2017 Tax Law

	Increase in Annual Growth Rate (p.p.), 2017–2027
Barro and Furman (2018)	0.02 to 0.04
Congressional Budget Office (2018b)	0.06
Goldman Sachs[1]	0.07
International Monetary Fund[1]	-0.01
Joint Committee on Taxation (2017b)	0.01 to 0.02
Macroeconomic Advisers[1]	0.02
Moody's Analytics[1]	0.04
Penn Wharton Budget Model (2017)	0.06 to 0.12
Tax Foundation (2017)	0.29
Tax Policy Center (2017)	0.00

Note: [1]Annual changes as reported in CBO (2018b). Tax Policy Center analysis published by Page et al. 2017. Based on sources listed and author's calculations.

All of these estimates are for GDP and thus overstate the impact on well-being of people, possibly even getting the sign reversed, for three reasons. First, the law results in a higher level of capital and thus a higher level of depreciation—which is counted in GDP but is not a source of income for people. Second, the law results in increased foreign borrowing that will eventually need to be repaid—coming out of Americans' future incomes. The statistic that adjusts for these two factors is national income and its increase would be even smaller than that of GDP and might even be negative (Furman 2018). Finally, none of these data reflect the cost associated with the reduced consumption from increased saving and the reduced leisure from increased work, incorporating these would lower the benefits even more.

Point #4: A better approach could both increase revenue and encourage more investment and innovation

Congress should be working on a tax reform that would genuinely improve the tax system—increasing revenue while promoting economic growth wherever possible. I recently published a paper as part of a broader project at The Hamilton Project that outlined the domestic components of corporate reform that would achieve these goals (Furman 2020). In addition, addressing the many ways that companies can still avoid taxes by shifting income and in some cases production overseas should be a high priority.

The key insight motivating my proposal was that much of the economic efficiency associated with the business tax code depends on the *tax base* and not on *statutory tax rates.* With a reformed tax base that expands incentives for new investment as well as for R&D it is possible to increase statutory tax rates in a way that raises more revenue from past investment decisions and their future profit windfalls (i.e., the so-called "supernormal" return) while cutting the tax rate on the portion of the return that businesses use in evaluating whether to make new investments or undertake R&D (i.e., the so-called "normal" return). This is the opposite of the traditional tax reform mantra to broaden the base and lower the rates. Instead, tax policy should improve the tax base going forward, which would enable more efficient increases in tax rates.

My proposal has five elements: (i) allowing businesses to expense all of their investments in equipment, structures, and intangibles while eliminating the net interest deduction; (ii) raising the corporate rate to 28 percent; (iii) requiring large businesses to file as C corporations; (iv) eliminating other corporate loopholes, including the so-called extenders; and (v) expanding the research and experimentation tax credit. My paper was focused on the domestic aspects of reform but the international aspects are also very important, with some specific proposals in Clausing (2020) that are worth considering.

My proposal would encompass both business income that is currently taxed through the corporate income tax as well as business income taxed through the individual income tax, which is used for pass-through corporations like sole proprietors, partnerships, and S corporations. Thus, the proposal addresses the taxation of business income broadly, and not just taxation of C corporation income. Given the current ability of companies to choose which system they are taxed under—an ability this proposal would remove—it is essential to consider business taxation as a whole, and not just corporate tax reform by itself.

Using the model and parameters I developed with Barro, I estimated that the proposed reform would increase the annualized GDP growth rate over the next decade by at least 0.2 percentage point, increasing the long-run level of output in the economy by at least 5.8 percent (both relative to current law).[4] In addition, if enacted in 2021 it would raise $300 billion in revenue from 2021 through 2030, not counting macroeconomic feedback, and $1.1 trillion with macroeconomic

[4] This estimate just reflects changes in the cost of capital and associated changes in investment. It does not reflect the fact that increases in R&D could also increase total factor productivity growth or the benefits that reducing the debt-equity difference would have for macroeconomic stability and potentially the longer-run level of output as well. As such, these growth estimates are a lower bound.

feedback. In steady-state, revenue would increase by 1.1 percent of GDP (including macroeconomic feedback), the equivalent of $3 trillion over the next decade.

This business tax change by itself would be very progressive. Taking into account the specifics of the tax proposal and the wage effects, the bottom four quintiles would all see increases in their after-tax incomes while the top 0.1 percent would see a 3.8 percent decline. Also taking into account the use of the revenue, assuming that it is given out in equal lump sum amounts to every tax unit, the bottom quintile would see a 9.9 percent increase in its after-tax income, and the middle quintile would see a 3.5 percent increase in its after-tax income. The total gains to society, measured by summing the percentage changes for individual households, would be about a 5.0 percent increase in well-being. These results are summarized in Table 4.

Table 4
Summary of Estimated Effects of Furman (2020) Business Tax Proposal

Macroeconomic Effects		
Long-run change in GDP		5.8%
Change in annual growth rate, 2021–2030		0.24 p.p.
Revenue Effects		
Revenue for 2021–2030:		
Without macroeconomic feedback ($ billions)		300
With macroeconomic feedback ($ billions)		1,100
feedback:		
As a percent of GDP		1.1%
Nominal equivalent for 2021–2030 ($ billions)		3,000
Distributional Effects		
	Corporate tax increase only	With lump sum transfer
Lowest quintile	1.1%	9.9%
Second quintile	1.3%	5.0%
Middle quintile	1.3%	3.5%
Fourth quintile	1.3%	2.6%
Top quintile	-0.1%	0.4%
Top 0.1 percent	-3.8%	-3.8%
Average percent change for households		5.0%

Note: Distributional estimates are for 2025.
Source: Furman (2020).

Thank you, and I look forward to your questions.

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