



THE ECONOMIC REALITIES OF TAX REFORM AND ITS IMPACT

DESCRIPTION: This panel examined the revenue, distributional, macro-economic, and sectoral economic consequences of the current tax reform and other proposals based on the CBO, JCT, NEC, and outside analyses.

PANELISTS:

Hank Gutman, Of Counsel, Ivins, Phillips & Barker (moderator)

Jason Furman, Professor of the Practice of Economic Policy, Harvard Kennedy School

Drew Lyon, Principal and National Economics and Statistics Leader, PwC

Martin Sullivan, Chief Economist, Tax Analysts

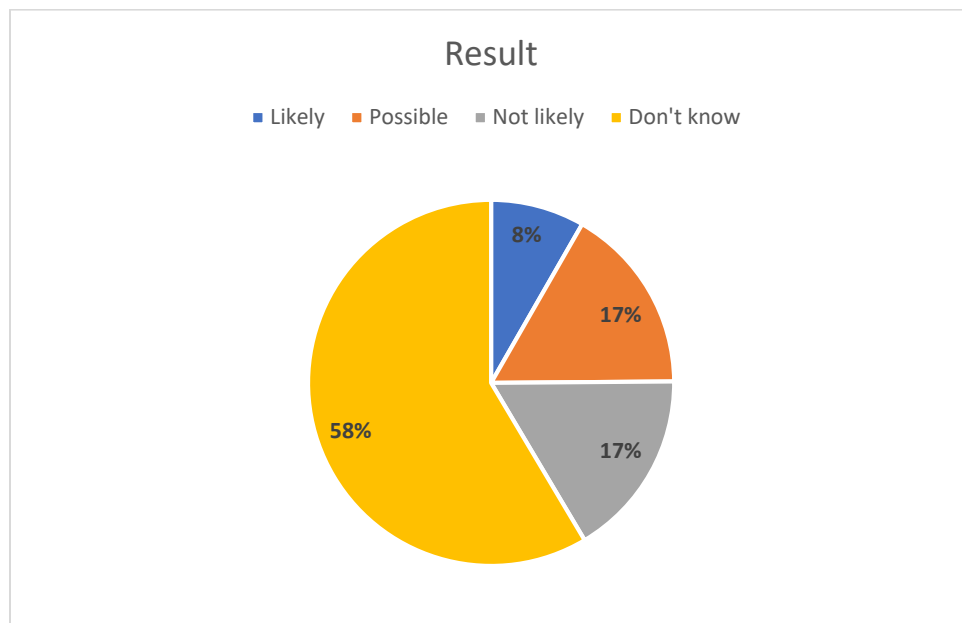
MR. HANK GUTMAN: Good morning. I'm Hank Gutman, and I have the privilege of being joined on this panel by three terrific economists. We're going to talk about the economic effects of the Tax Act, and in particular we're going to focus on revenue and distribution. We're going to talk about how we think the act is going to affect the competitive position of United States companies, multinationals in particular. And, finally, we're going to talk about economic growth and the economic growth potential of the bill. We will also focus a bit on deficits and why we care or if we care.

Just to introduce the panel very quickly, on my left is Martin Sullivan. Marty is the Chief Economist at Tax Analysts. More importantly for me, he was my colleague at Joint Committee. I relied on him a lot for his economic wisdom. To Marty's left is Jason Furman. Jason now teaches at the Kennedy School at Harvard, but he was the Chairman of the Council of Economic Advisers in the Obama Administration. He has a perspective on things, and we'll be able to compare his perspective to the current chairman of the Council of Economic Advisers, who will be arriving here later this morning. That should be very interesting. Then finally, Drew Lyon. Drew is now at PwC, but Drew was the Deputy Assistant Secretary for Tax Analysis in the Treasury.

So, this is the group we've got. Marty is going to talk about distribution and revenue. Drew is going to talk about competitiveness. Jason is going to talk about economic growth. And we'll have a little discussion about the deficit issue.

Before we start and before I turn it over to Marty, I have to take care of CPE and deal with a polling question. The first question asks, do you think that the Tax Act is going to cause your company to locate new income-producing activity in the United States? There are a lot of slides, by the way. We opted to give you as much information as we possibly could in writing so you can look at this on your own. We're constrained by the time limitation so I'm going to stop here and let Marty go to work on issues of revenue and distribution.

Polling Question #1: Will TCJA cause your company to locate new income producing activity in the U.S.?

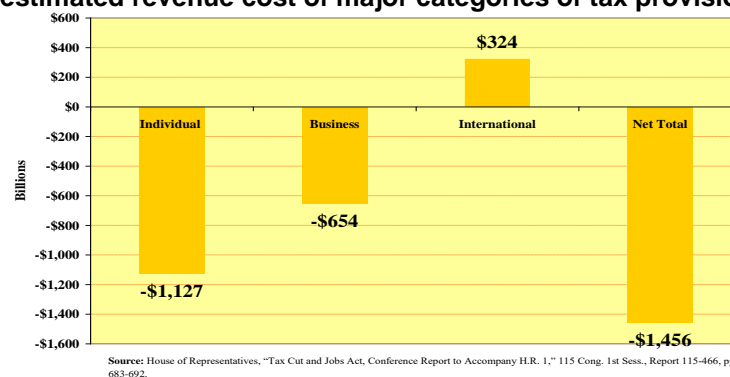


Marty, why don't you start talking?

MR. SULLIVAN: Okay. I want to thank everybody for waking up to listen to economics so early in the morning. I want to thank Lyn Walker and Debbie Siu at TCPI. I want to thank Lisa and Veronica at Deloitte. I want to thank the sound crew in the back. I wanted them to put on the Rolling Stones, but they wouldn't do it. I want to thank Bob Stack for allowing economists to speak at this conference. And I want to thank Hank for letting me be part of this prestigious panel. I only got 12 minutes, so I'm going to talk fast, so pay attention, okay? Here we go.

Let me tell you the story of PL115-97. I'm going to do it in pictures and every picture is going to tell you a little different angle about what's going on. This is all from the Joint Committee on Taxation.

Ten-year estimated revenue cost of major categories of tax provision in TJCA

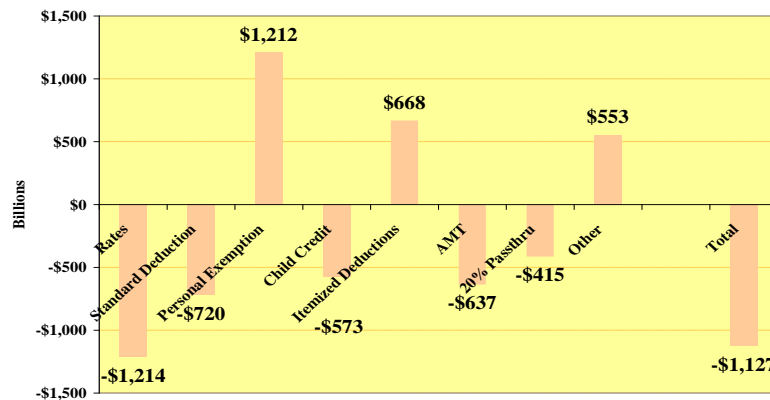


These are the ten-year revenue estimates, and as you can see, \$1.1 trillion for individuals and \$650 billion for businesses. On the international side, there is a tax increase of \$324 billion for a net total, \$1.456 – we call it \$1.5 trillion. What does this picture tell you? The first thing to notice is that in this \$1.1 trillion for individuals, there's \$400 billion for Section 199A (20 percent small business deduction). You have equal tax cuts for business and individuals, and you say, well, that seems fair except that businesses only have about 30 percent of the income of individuals. So proportionately, businesses are getting much larger tax cuts than individuals. Next, you should notice that international isn't doing too

well, so it's really domestic business that's getting the bulk of the benefit in this bill.

Now, let's just look at the individual piece of that, and it's very confusing.

Ten-year revenue cost of major individual provisions in TJCA



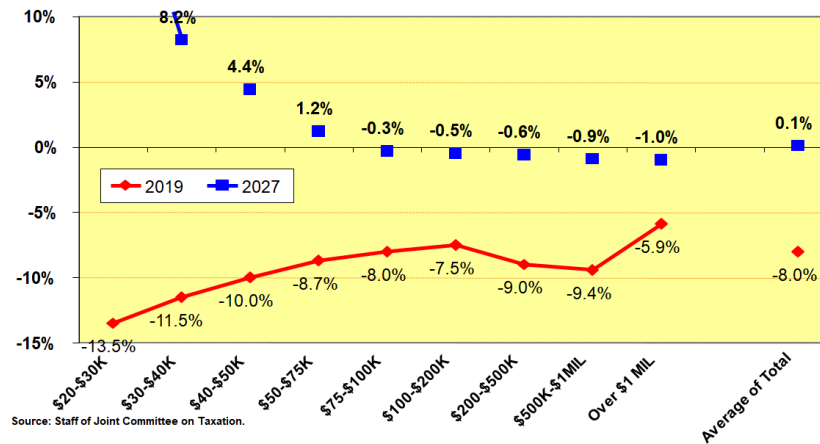
You have rate cuts, great. Standard deduction increase, great. That's good economics. That is what we want. Elimination of the personal exemption, that's a big revenue increase, offset by the expansion of the child credit. Generally, that's a good thing. Child credit -- credits are better than exemptions. We increase itemized deductions. That's mostly limitations on the SALT deduction. We mostly got rid of the AMT. That's a good thing. Twenty percent passthrough, Section 199A, that's a terrible thing. That's an abomination. There's no economic justification for it. It's all about politics. It's extremely complex. It makes a farce of the idea of simplifying taxes for small businesses. But when it's all said and done, you got \$1.1 trillion in the official JCT estimates for individual cuts.

Yesterday, we had a polling questions on the business tax cuts. You were asked which is most important to you, is it the corporate rate, is it bonus depreciation, is it the interest limitations, or the NOLs limits. And guess what, most people said the rates mattered most, and these revenue estimates back that up. Is this good economics? This is great economics. We the economists hate the corporate tax. It's fantastic that we reduced the rate from 35 to 21 percent. The bonus depreciation you can combine with the interest limitation, that's great economics because instead of rewarding interest which might promote capital formation, we're going to reward capital formation that might be financed by interest. So those are positive moves. We got rid of Section 199. And we are going to amortize R&D. I don't think it's ever going to happen, but we can argue about that.

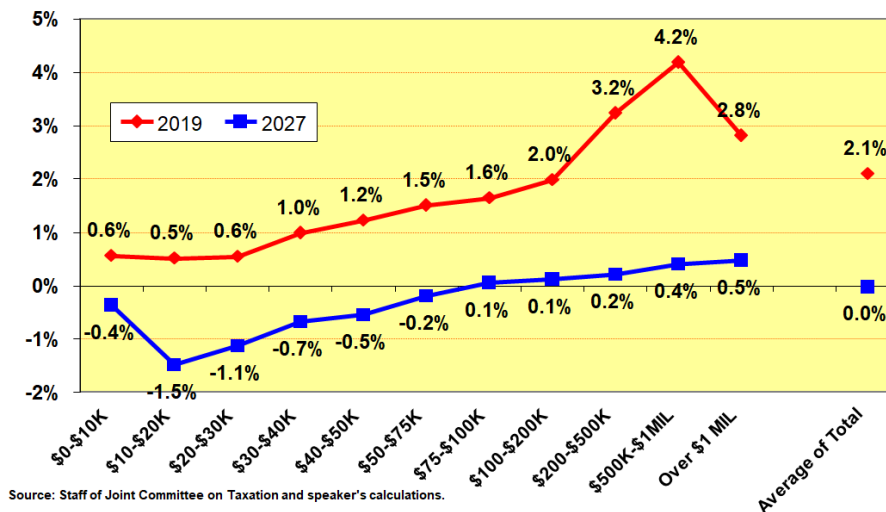
International is the focus of a lot of attention. We go to a territorial system. Repatriation. Getting rid of a lockout effect, fantastic economics. We're very glad to see that. Then we have GILTI, raising \$112 billion, and then we have FDII losing a little bit. It's very complex, and it's got thousands of problems with it technically, but the general idea is we're tilting the playing field back to the United States. That's good. The BEAT, big revenue raiser, only applies to companies with over \$500 million in domestic sales. Technically, it has tons of problems, but the idea of limiting, earnings stripping is a very good thing. So overall, the international sector totally jives with what we hear anecdotally, "Gee, we love the repatriation, we're getting our cash back. But otherwise, it's a mixed bag and it really isn't that good of a deal." In fact, for folks who don't have a lot of tangible capital, and you're subject to the GILTI, it's like a worldwide system with a lower rate. So, for some folks, it's been a very unpleasant surprise.

Okay, moving right along. These are the distribution tables from the Joint Committee on Taxation. Just look at the lower line, which is for 2019.

Percentage change in federal taxes, Conference Report



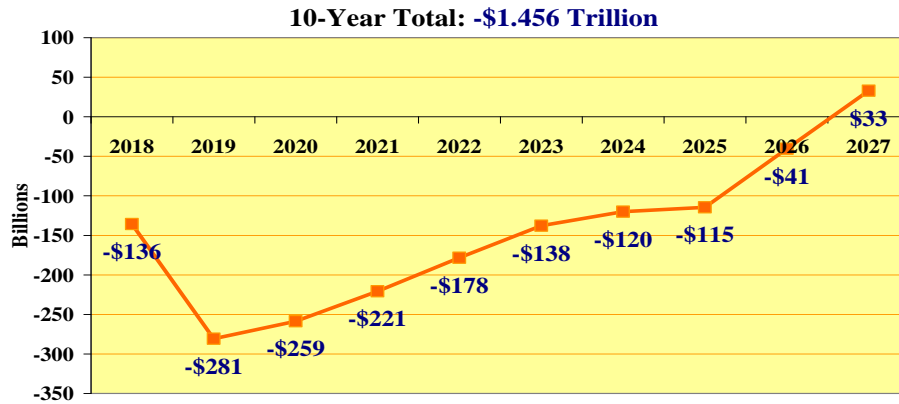
Percentage change in after-tax income, Conference Report



Notice two things. One, everybody gets a tax cut on average of about 8 percent. Two, the tax cut is proportionately larger for lower income people than higher income people. That means it's a progressive tax cut. The Democrats really overplayed their hand when they said that this bill was going to favor wealthy because on average it doesn't. Now, the Democrats would have you focus on 2027, which is the top line, when all the individual stuff expires. In that case, yeah, it's going to be terribly regressive. If you just skipped ahead to 2027, this would be a large redistribution. But 2027, that's like after the second Trump term. I can't even think about that.

Let's take another picture of the bill. This is a year-by-year revenue estimate.

Conventional revenue estimates of final version of TCJA in Conference Report

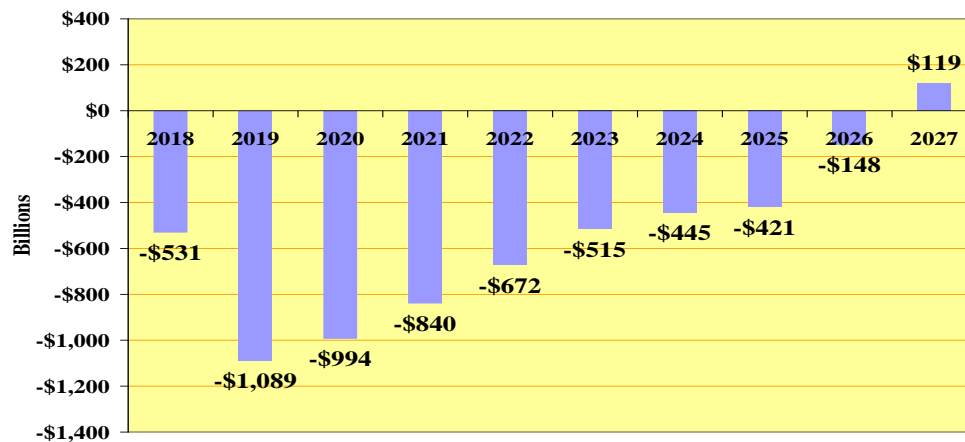


Source: Joint Committee on Taxation as reported in as reported in 'House of Representatives, 115th Cong., 1st Sess., Report 115-[blank], "Tax Cuts and Jobs Act," released at 5:30 p.m., Dec.

If I were a Keynesian economist and a cynic, I would say that this bill is designed to stimulate the economy right before the 2020 election because notice how it's very front-loaded. In the olden days, we used to back load tax cuts, but for some reason, Congress front-loaded. Now, there are positive supply side effects to also consider in the long run. But many people would say right now this is the exact wrong time to be having a Keynesian stimulus. The ten-year bond rate has gone from 2.4 to 2.9 in 30 days. The inflation rate's up. There's upward pressure on wages. The stock market, I hear, is up. Is the economy overheating? Gary Cohn says don't worry about it. I say I don't know, but it's certainly not cooling off.

Here is the same picture from a person's point of view.

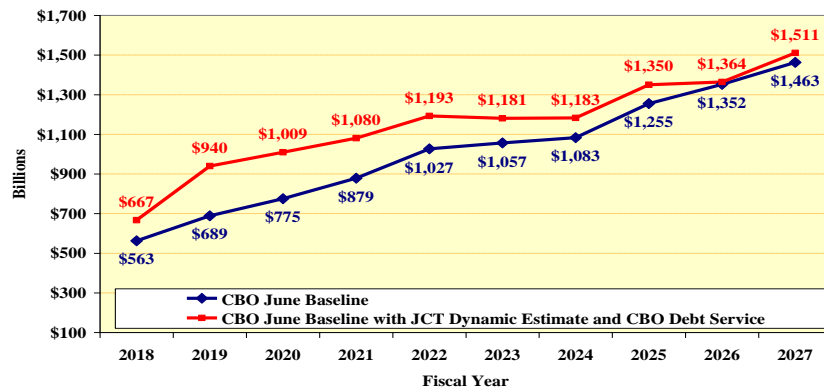
Average per capita (over age 18) tax cut from TCJA



Note: FYI, U.S. Census Projection 2020 Over Age population 260.4 million

It's the exact same numbers divided by the adult population, 260 million people. (There are 330 million total people in the United States now.) When you look at those distribution tables, on average, an adult's going to get \$500 next year in tax cuts. On average, about \$1,000 in the next year and so on and so forth. If you add these numbers up, it's \$4,500. The point is this is a tax cut, and people are going to be happy about it. But, the other thing to remember is the exact same numbers are the increases in deficits. So, you're getting a \$4,500 tax cut on average. You're also getting a \$4,500 increase in your deficit, which gets me to my main point: deficits, deficits, deficits, and more deficits.

Preliminary estimate of deficits after enactment of TCJA



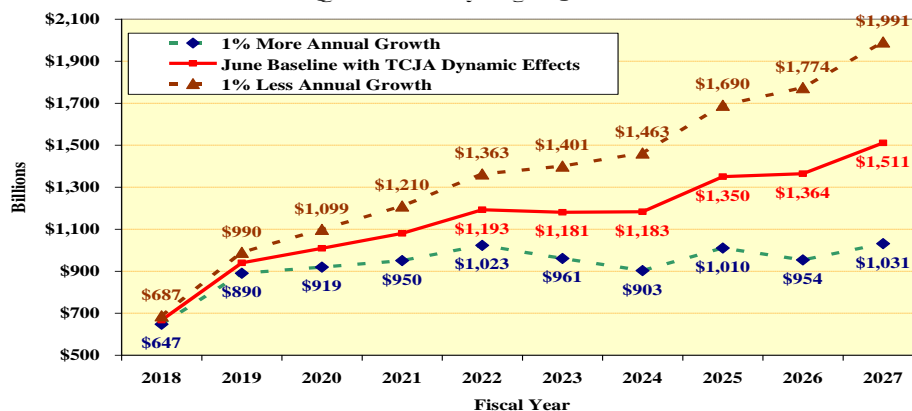
Sources : Congressional Budget Office, Letter to Sen. Ron Wyden, "Estimated Deficits," Jan. 2, 2018; Joint Committee on Taxation, "Macroeconomic Analysis of the Conference Agreement, for H.R. 1, The "Tax Cuts and Jobs Act"; Dec. 22, 2017, JCX-69-17; and author's calculations.

The blue line is the CBO baseline before the tax cut. We're at about \$600 billion now, and we are on the way to \$1.5 trillion. Not good, not good at all. This line has to be level if we want to be stable. Forget about balancing the budget or getting rid of the debt. I'm talking about just having stability. The red line is my estimate, adding on the JCT number for what is the effect of the tax cut. So, we're going to have larger deficits as a result of the tax cut unless there's tremendous economic growth. Now, what I don't have on here, because we had to hand in the slides two weeks ago, they did this little \$300 billion spending increase, which bumps this line up even more. Then, there's a question about will they continue that spending increase afterward or not. I'd say they're probably going to continue it. If you do say that, these numbers go up to \$2.1 trillion. We'll have a projected \$2.1 trillion!

Now, is that going to happen or not, or am I making the right assumptions? I don't want to argue about that, but I think the general direction is pretty clear. Finally, because I want you to hear the commentary of the rest of the panel, you got to remember and you're not going to believe this, but economists can't predict the future. We're not always right. Sorry. In fact, in my lifetime, you're not going to believe it given my youthful appearance, but in my lifetime, in the 1970s, nobody predicted the oil price shock, which was the biggest economic event. Nobody predicted the dot-com boom of the 1990s. It wasn't in any economic model. And certainly, nobody's economic model was predicting the financial crisis of 2008.

So, looking out over there, the red line is the latest CBO number, assuming 1.9 percent economic growth.

Preliminary estimate of deficits after enactment of TJCA and estimates assuming permanently higher and lower 1% growth



Sources : Same as figure 3 and Congressional Budget Office, "The Budget and Economic Outlook: 2017 to 2027," Jan. 24, 2017, Appendix B, Table B-1 [CBO "rules of thumb"].

So, you ask, how can you possibly say 1.9 percent when the historical has been 3 percent? What are

you, unpatriotic? No, it's demographics. Economists can't predict the economy, but demographers can predict the rate of growth of the population. And the working-age population is getting older, some of us are going to retire. And, so, when you say you want to have 3 percent growth in 1980, that's fine, because the population's growing. Women were entering the workforce. Now female participation in the workforce has leveled off. And on top of that male participation is dropping off. When you want to get to 3 percent now, you're swimming upstream. Before, you were swimming with the tide.

The economic growth and deficit projections are uncertain. We don't know which way we're going to go. We may end up on this lower line which are projected deficits assuming 3 percent growth, this is what the Administration is telling you. If we have that, we'll be all right, no doubt about it. But, what if we go the other way? And it can go either way. We'll certainly be looking at \$2 trillion deficits, and that does not include the spending cuts.

I know you're all busy trying to figure out the bill -- don't waste any time looking at the President's budget because it's fantasy, both politically and economically. What you want to be looking at is the CBO's *Budget and Economic Outlook*, which is going to come out sometime after February 15th.

MR. GUTMAN: We've got to get to Drew.

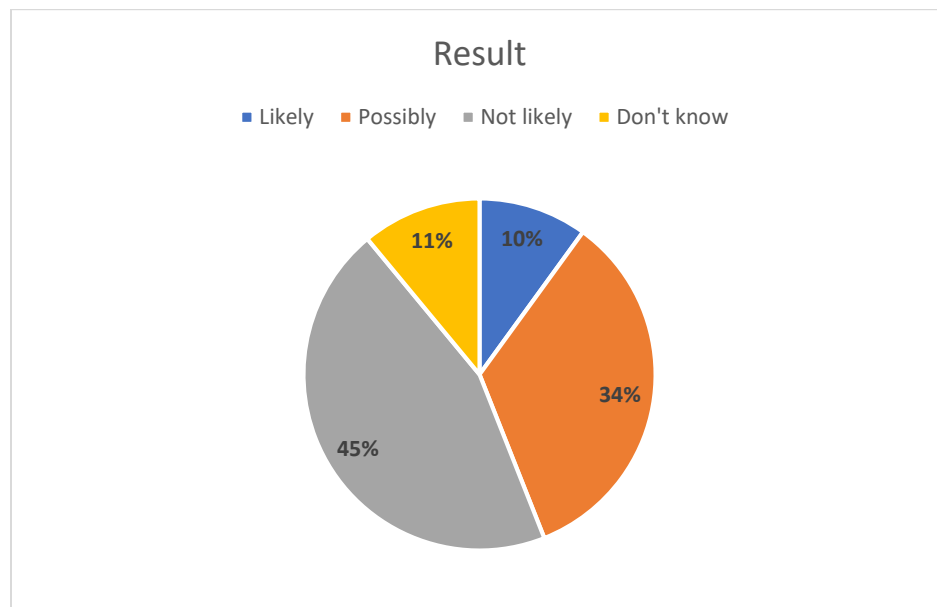
MR. SULLIVAN: Get to Drew, okay. If you want to, we could talk about the effects of all the different components of the bill, but we'll save that for later.

MR. GUTMAN: Yes, I think Drew's going to talk about that, and then maybe we can come back in.

MR. SULLIVAN: Great.

MR. GUTMAN: Let's cue up the next polling question.

Polling Question #2: Will TCJA cause your company to transfer offshore income producing activity to the U.S.?



MR. GUTMAN: The first two questions actually really do go to the stuff that Drew wants to talk about, so we can see the extent to which your analysis is consistent with what the folks in the room think. There we go, okay.

MR. DREW LYON: Not likely is in the lead again.

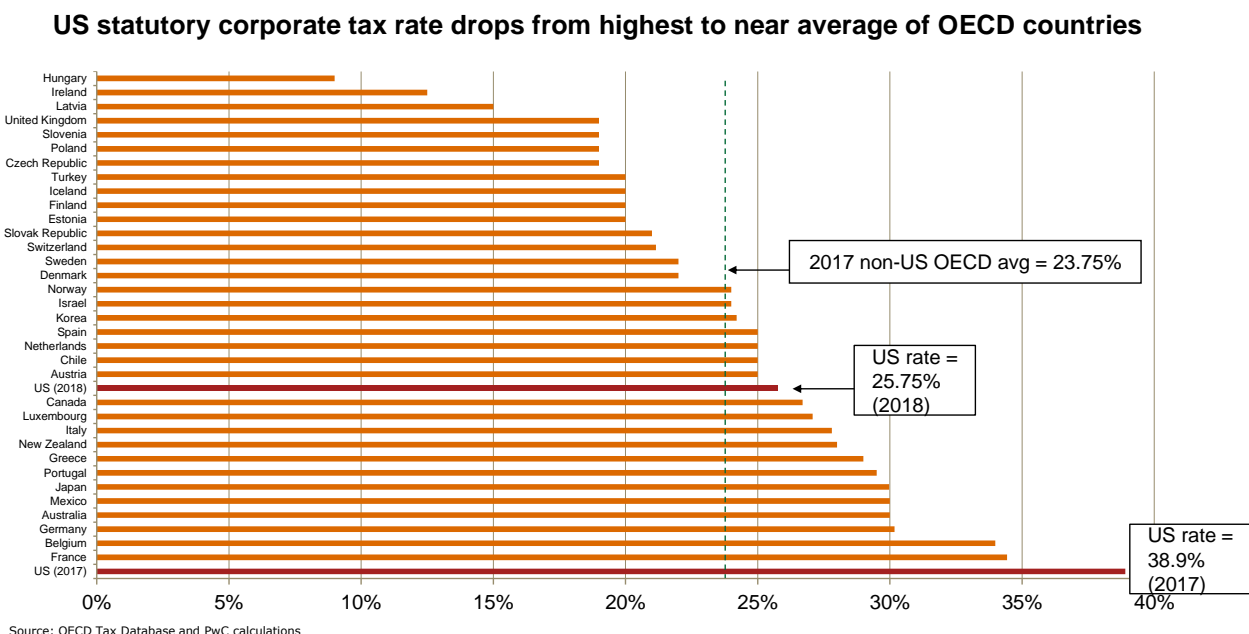
MR. GUTMAN: Likely again, the transfer offshore income to the United States or was it likely that people would be --

MR. LYON: Not likely is the largest response.

MR. GUTMAN: Okay. Drew, Marty set this thing up for you. Let's talk about whether you think that the consequences of this act are actually going to have an effect, material or otherwise, on the location of income-producing property.

MR. LYON: Okay. Thanks, Hank. So, I want to look at this more from a comparative international approach, how has tax reform changed tax policy in the U.S. compared to other developed countries, where do we stack up. I'm hearing that the reasoning behind tax reform was to improve U.S. competitiveness. The reasons we want to make U.S. companies competitive globally and increase investment at home is ultimately to increase U.S. income, to increase U.S. wages as well as U.S. investment income.

From the simplest perspective, what has happened to statutory rates? For many years, we've been looking at a chart like this, but we didn't have 2018 in here.



From this perspective, it really is a remarkable accomplishment, and it lines up with the revenue loss figures that Marty was just presenting.

I think for roughly 20 years U.S. companies recognized that the U.S. was lagging behind the rest of the world in terms of where the corporate rate was. Basically, after the '86 act, there was no change in the combined federal/state corporate rate. Actually, in 1993, there was a small increase in the federal rate. So, in one fell swoop we have essentially made up for 20 years of falling behind the rest of the world. The combined federal and state rate, using the average state rate that the OECD computes, under the new law still places the U.S. above the average for other OECD countries. If you look individually at each of the countries, the U.S. had been the highest combined statutory tax rate of the 35 OECD countries. Our combined federal and state statutory rate now, 25.75, again is slightly higher than the average, it also roughly gets us to the median of the OECD countries.

If you look individually at countries, the United Kingdom is at 19 percent, headed to 17 percent by 2020. Many of the larger European economies are in the 30 percent range -- Germany, Japan, France. But the

rest of the world is not standing still. Even before the ink was dry on the bill and even before it was introduced in Congress, there were discussions around the world of continuing rate reductions, and these have been even more affirmative post-enactment. Australia is talking about lowering its rate to 25 percent over the next several years. Belgium and France just enacted a phased-in rate reduction to 25 percent. There's a new focal point of about 25 percent in many of these countries. As I mentioned, the U.K. already has on the books a 17 percent rate to take effect in 2020.

Enacted and Proposed OECD Corporate Rate Reductions

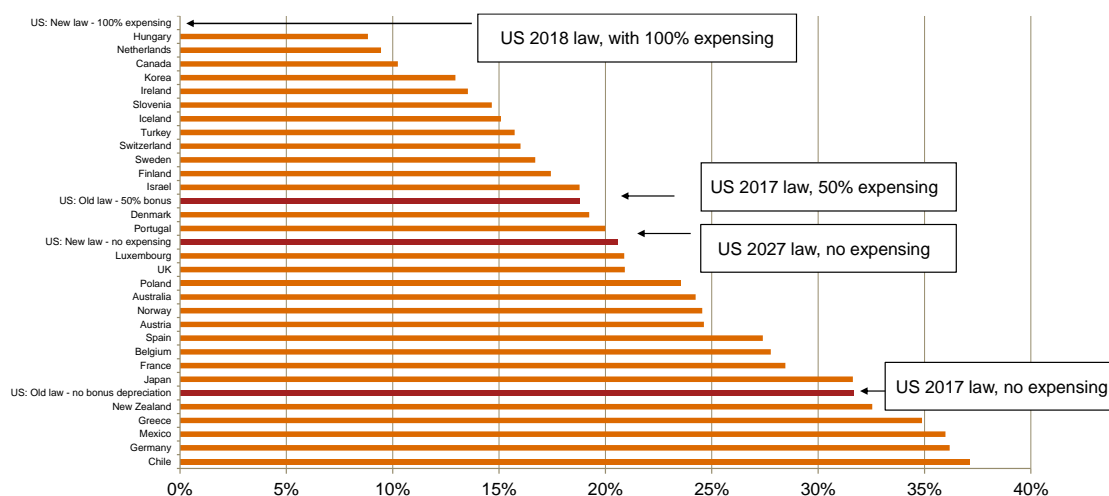
Country	2017 Rate	Future Rate	Change
Australia	30%	25%	-5.0%
Belgium	34%	25%	-9.0%
France	34.4%	25%	-9.4%
Greece	29%	26%	-3.0%
Israel	24%	23%	-1.0%
Luxembourg	27.1%	26%	-1.1%
Netherlands	25%	21%	-4.0%
Norway	24%	23%	-1.0%
Sweden	22%	20%	-2.0%
United Kingdom	19%	17%	-2.0%

Source: OECD Tax Database and PwC

And there are a couple of countries that have had rate increases -- Korea, a 27 percent rate kicks in; Turkey has a small rate increase. But, you know, if we think of the trend, the trend is going to continue for lower rates.

Now, statutory rates are not the only measure of competitiveness. I'm going to present some alternative measures. Jason's also going to be presenting some measures. Here, we will start with the effective *marginal* tax rate on a break-even investment that is equity-financed. This is one of many ways economists look at investment incentives. Here, I'm only isolating equipment, which is one of the largest beneficiaries under the bill because it's going to be eligible for full expensing.

US effective marginal corporate tax rate for equity financed investment in equipment under prior law and new law



Source: PwC calculations

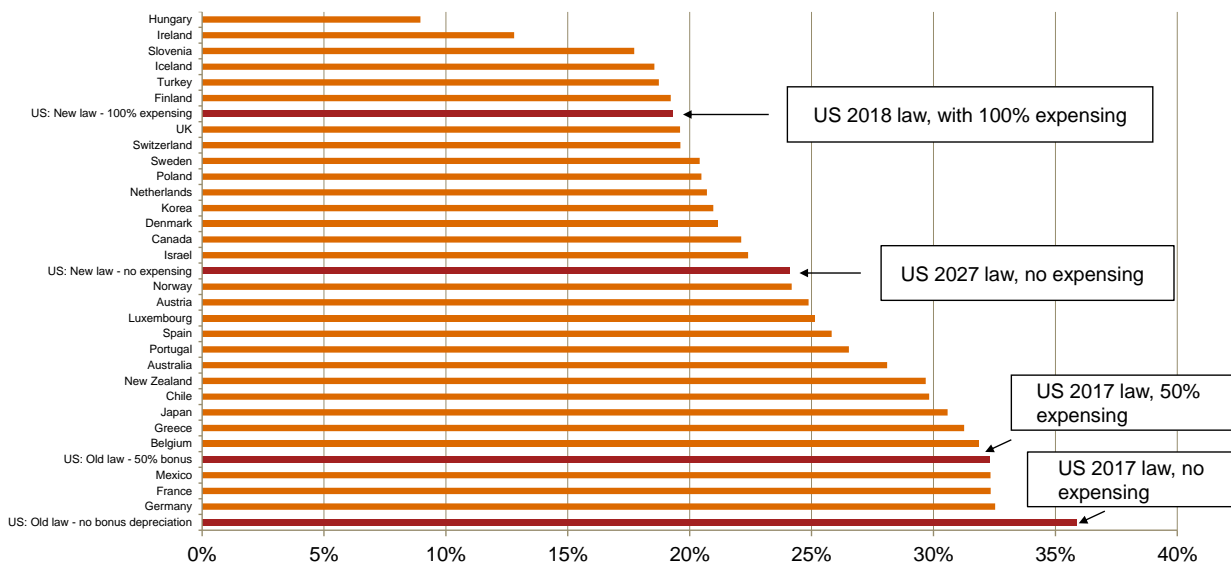
And, so, I've got a couple of comparisons up here. If we think of 2017 law and 50 percent expensing and had that been permanent, that would have given an effective marginal tax rate just under 20 percent, even at the combined 39 percent state and federal statutory corporate tax rate. 2017 law with no expensing, our MACRS depreciation is still slightly accelerated relative to economic depreciation, in most economists' estimation, but it's getting us an effective marginal rate much closer to the combined statutory rate under formal law, about 32 percent.

With full expensing, under the new law in 2018 an equity-financed investment at the margin pays no tax. The immediate write-off in present value is equal to the tax that will be paid on a break-even investment. This is a highly competitive tax rate for that break-even investment, but as we know many provisions in the newly enacted bill are explicitly temporary among those expensing. And we can see 2027 law, the 21 percent federal rate but no expensing, the effective marginal tax rate on this break-even investment is about the same as it was under prior law with 50 percent bonus depreciation. There's a tradeoff here, a lower rate roughly compensating for the loss of bonus depreciation in the long run.

Another way of looking at investment incentives is the effective *average* corporate tax rate. This measure is useful when you are looking at where are you going to locate the next investment, and it takes into consideration the fact that the next investment might not be a break-even investment. It could be a highly profitable investment that the company is deciding between making that investment in the U.S. or in some other location.

And, so, if it's a highly profitable investment, depreciation recovery might be relatively small relative to the profits you expect to earn on the investment. This effective average corporate tax rate is sort of a blend of the statutory tax rate and the effective marginal tax rate on a break-even investment with a lot more weight put on the statutory rate.

US effective average corporate tax rate for equity financed investment in equipment under prior law and new law

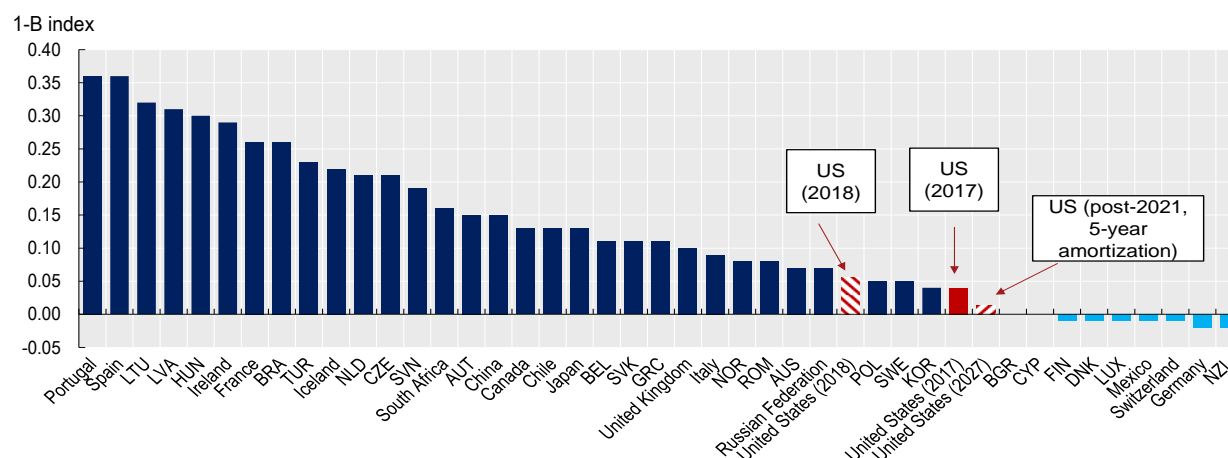


Source: PwC calculations

Here we see much more dramatic changes. Under the prior law high, 39 percent statutory rate, we had effective average rates close to the statutory rate, between 30 and 35 percent, depending on whether bonus was in effect or not. Under 2018 law, with 100 percent expensing, the effective average tax rate is below the 21 percent federal statutory tax rate. And even if expensing expires, we'd be close to 21 percent. This is, again, accounting for the 21 percent federal statutory tax rate plus average state income taxes. So, again, I'd say this is a very significant reduction. This is making the U.S. a more attractive location for investment relative to other countries.

Equipment investment isn't the only type of investment. Here, I'm looking at the incentive to undertake research activities in the United States. The OECD has been developing a framework to compare the incentives different countries offer, looking at research tax credits, write-offs of research expense, 100 percent expensing, more than 100 percent expensing of research costs. Importantly, this OECD measure does not include patent box incentives, so I'll look at that separately.

Countries ranked from largest to smallest incentives (excludes patent box incentives)



Source: OECD and PwC calculations

The OECD has said that the U.S. had been ranking 32nd least favorable of 41 OECD and other major countries. Portugal is shown on the left-hand side with the most favorable measure of investment incentives for R&D. Under this metric, a measure of zero corresponds to essentially no marginal tax burden on research. It's equivalent to essentially full expensing of all research-related expenses. You can see most countries, except for the outliers on the far right, are providing incentives at least equivalent to full expensing.

The stylized R&D project that the OECD is looking at includes direct current research expenses such as labor and supplies, and a small amount of equipment and structures that help support those activities. What we see is the new law, with the lower corporate tax rate, and 100 percent expensing for equipment-related research expenses slightly moves up the U.S. on this metric; however, if we move to a world post-2021 when we're amortizing research expense over five years and no longer expensing equipment-related research activities, we're actually slightly worse off than we are under prior law.

Patent boxes are another metric we can look at. Here, I'm comparing the tax rates under the patent boxes in most of the countries that offer them.

Innovation or Patent Box Tax Rates

Country	Fully phased-in tax rate	Country	Fully phased-in tax rate
Belgium	6.8%	Malta	0-6.25%
Cyprus	2.5%	Netherlands	5.0%
France	15-15.5%	Portugal	11.5%
Hungary	4.5-9.5%	Spain	10.0%
Ireland	6.25%	Switzerland	8.8% (Nidwalden)
Israel	9% / 16% (vary by region)	Turkey	10.0%
Italy	13.75%	United Kingdom	10.0%
Korea	5-16.5%	United States*	17.87% (2018-2025)
Luxembourg	5.76%		21.15% (2026-)

Source: OECD and PwC calculations

You can see, there's a wide range, but 10 percent is a common number, maybe the median of these. And for the U.S., I'm using the FDII rate of 13.125 percent prior to 2026 and adding on the average state tax burden. So instead of 13.125, we get something like 17.9 percent, and that will bump up after 2025 when the FDII deduction becomes less generous. Again, it's not exactly equivalent to a patent box. It's only for foreign-derived intangible income. If you're selling within the U.S., you're going to be paying the statutory rate, unlike the patent boxes of other countries. So, by this comparison, I'd be challenged to say it's offering a competitive patent box solution. This goes back to the polling question, is this attractive enough for you to locate your high-return income in the U.S. relative to some of the other alternatives?

My final slide is reminding us internationally where our system stacks up. I think many speakers yesterday, in my view, accurately referred to the new U.S. international system as a hybrid system: you either have income that qualifies for territorial or it's subject to current taxation under the GILTI tax.

International Taxation

Method of Taxation	OECD Countries (excluding US)		Dividend Exemption Percentage
Territorial Tax Systems (29 countries) Exempt foreign-source dividends from domestic income taxation through territorial tax system	Australia, Austria, Canada, Czech Republic, Denmark, Estonia, Finland, Greece, Hungary, Iceland, Latvia, Luxembourg, Netherlands, New Zealand, Poland, Portugal, Slovak Republic, Spain, Sweden, Turkey, United Kingdom		100% exemption
	Norway		97% exemption
	Belgium, France, Germany, Italy, Japan, Slovenia, Switzerland		95% exemption
			0% exemption
Worldwide Tax Systems (5 countries) Worldwide system of income taxation with deferral and foreign tax credit	Country	2017 Tax Rate	
	Chile	25.0%	
	Ireland	12.5%	
	Israel	24.0%	
	Korea	24.2%	
	Mexico	30.0%	

Source: PwC

We do have a 100 percent exemption system for the income that does qualify for the non-GILTI portion of your foreign income, but the GILTI income is actually subject to fairly significant tax rates.

Most of the other countries do have CFC rules, and the BEPS project is leading countries to make further changes as is the ATAD directive in the EU. But, importantly, those directives only apply to passive income. So, the U.S. is quite unusual in that the active income on the high returns are being subject to current taxation. I do think of that as a relatively noncompetitive situation for high-return income.

The overall assessment is that it's a rather mixed bag in terms of the overall competitiveness, some remarkable achievements on the statutory rate, other areas where perhaps more work still needs to be done.

MR. GUTMAN: Marty, do you want to comment on that? You had a slide that set up the incentives and the disincentives?

MR. SULLIVAN: Yes.

MR. GUTMAN: Relating to international income?

MR. SULLIVAN: Thank you so much.

MR. GUTMAN: And it's probably worth taking just a quick look at.

MR. SULLIVAN: Thank you, Hank. Okay, a good friend of mine said to me, gee, with this new territorial system, everybody's going to go off shore. So, I said, whoa, that's a gross oversimplification of what's going on. I actually sat down and did all the rough calculations. So, good news, you get a rate cut, so come back to the U.S. Good news, you get expensing, come back to the U.S. Bad news, you've got interest limitations, that's not so good.

As for FDII, most practitioners I've talked to say it's not really helping them that much on there, but the GILTI and the FDII, it's the carrot and the stick, should provide incentive to bring you back to the U.S. That's good, that's good.

Now, the BEAT, which was originally targeted on inbound companies but it's on everybody now, that's going to push you out, okay? And then you have a whole bunch of other revenue-raisers like NOLs limitations, which is no small change either. You put that all together, and as economists do, I made a ton of assumptions about the characteristics of the average corporation. On net, tax reform is a good thing for America because it tilts the playing field more towards U.S. investment. But it's still tilted away from U.S. on net, according to these rough calculations.

Now, nobody is average. Everybody's different. But this just gives you sort of a baseline. And, this is the effect of the statutory, but there are other effects. The bill is going to cause the deficits which are going to raise interest rates. The bills are going to cause other governments to lower their taxes, which is going to tilt the playing field away. And, also, the bill has a tremendous amount of uncertainty. We don't know how to interpret it, as you saw yesterday. There's built-in uncertainty with the extenders because now we have all these expiring provisions, which I was told two years ago would never happen. Then we also have the uncertainty of –not knowing if it's going to be compliant with treaties and our trade obligations. So, I just wanted to give some overview of the economic effects.

MR. GUTMAN: Great. We have one more polling question before we get to Jason.

MR. SULLIVAN: Do you know what the TC in TCJA stands for? It stands for Toomey-Corker because those are the guys that really made this bill happen.

MR. GUTMAN: You better explain that.

MR. SULLIVAN: Well, on October 19th, as you heard yesterday, that was the day they agreed to the \$1.5 trillion reconciliation. That's what made this tax bill happen. So, Toomey-Corker. That's how you remember it.

MR. GUTMAN: Yeah, to put it more bluntly, you couldn't do anything if it was going to be revenue-neutral.

MR. SULLIVAN: Well, I can put it more bluntly.

MR. GUTMAN: Now, let's move on to Jason, who has a lot of very interesting material about the real growth potential and other aspects of the act.

MR. JASON FURMAN: Great. Thanks so much for having me here. I worked in the Obama Administration for eight years. I think I worked on the topic of business tax reform more than anything else, and I'd come to gatherings like this and talk about how our tax code was complicated, inefficient, we needed to reform it to get more economic growth. I'm here today to say our tax code is complicated, inefficient, and we need to reform it to get more economic growth.

I'm going to go through some analysis. What is striking to me is I did a lot of debating this tax bill with a lot of my conservative economist friends, and we all sort of agree. I don't think there's anyone that thought the passthrough provision was anything other than an abomination, and I don't think you're the first person to use that exact phrase. A lot of the macro analysis was very, very similar from conservative economists to myself. A lot of the numbers I'm going to show you are very similar to the ones Drew showed you, but I'm going to do the time series perspective rather than the cross-national perspective.

I do think there should be a new rule, and it might go against the First Amendment and all of that. Every time you show everyone else is lowering their corporate tax rates compared to the United States, you also have to show what everyone else did with their VAT. Everyone else was raising their VATs, while the United States VAT over the last 40 years has quadrupled from 0 to 0. And, so, I think you should

always show that chart as well, Drew, so I'd add that to your presentation.

Let's do some of the economics of it. Regarding the estimates of the Tax Cut and Jobs Act, or whatever it's called now, if you look across a wide range of groups on the change in the ten-year annual growth rate, the estimates range from about 0.00 percentage point to .01. So, instead of the growth rate being 2 percent, the growth rate will be 2.01 percent, which will be reported as 2 percent because no one shows hundredths. The Tax Foundation had a long-run output level, sort of an ad hoc ten-year thing. There were some numbers that people did for just the 20 percent corporate rate, and those tended to be a bit higher than the growth estimates for the Tax Cuts and Jobs Act as a whole.

Estimated Growth Effects of the Tax Cuts and Jobs Act			
	Plan Modeled	Change in Ten-Year Annual Growth Rate	Change in Long-run Output Level
Tax Policy Center	TCJA	0.00 p.p.	0.00%
Joint Committee on Taxation	TCJA	0.01 to 0.02 p.p.	~ 0%
Moody's Economy.com	TCJA	0.05 p.p.	N/A
Penn Wharton Budget Model	TCJA	0.06 to 0.12 p.p.	0.7 to 1.6%
Tax Foundation	TCJA	N/A	1.7%
AEI (Mathur and Kallen 2017)	20% Corporate Rate	0.09 p.p.	1.8%
Barro et al. 2017	20% Corporate Rate	N/A	3%
Feldstein (2017)	20% Corporate Rate	0.17 p.p.	N/A
Council of Economic Advisers	20% Corporate Rate	N/A	3 to 5%

Now, I should say at the outset, I'm going to be focusing on the long-run growth, what it's going to do to the supply side, what it will do to our incentives for investment, what that will do to productivity. Separate from that, there will be a very big demand side stimulus. In calendar year 2018, it's \$195 billion. If you do the spending bill plus the tax bill, it's a 1.2 percent of GDP fiscal stimulus.

Potential Transition Paths for GDP Increases		
	Percent of Steady-State Increase Achieved by 10th Year	Increase in Annual Growth Rate Over First Decade if Increase in Long-Run Level is 3 Percent (p.p.)
2% Convergence Rate	18%	0.05
OECD (2017)	30%	0.09
5% Convergence Rate (Barro 2017)	40%	0.12
Treasury (2006)	65%	0.19

So, this is a fiscal stimulus about half the size on an apples-to-apples basis of the Recovery Act. The Recovery Act being the single-largest piece of fiscal stimulus legislation ever in this country as a shared GDP. You're at half of the largest. That will be a lot in 2018, but that's just standard Keynesian demand stuff. What I'm going to be talking to you about is how it affects the supply side of the economy, the incentives.

So, why the output effects of the Tax Cuts and Jobs Act aren't quite as large as people think they are? First of all, crowd-out. If you think there's no crowd-out, you're crazy. The bill was \$1.5 trillion. If you extend everything in it and don't do the R&D amortization and don't do all of that, it's \$2.2 trillion.

You get different types of crowd-out. You get capital shifting from residential to corporate. On balance, that's good for the economy, but you want to take into account the lower residential. You're going to get foreign-financed repayment. We're going to be saving less, investing more. That means more foreign borrowing that eventually has to be repaid. And there's increased domestic borrowing.

Corporate capital, a little bit less of a share of the economy than people think. Most of our capital stock is in things like residential outside the corporate sector. And then the most important is that the analysis needs to factor in the full plan.

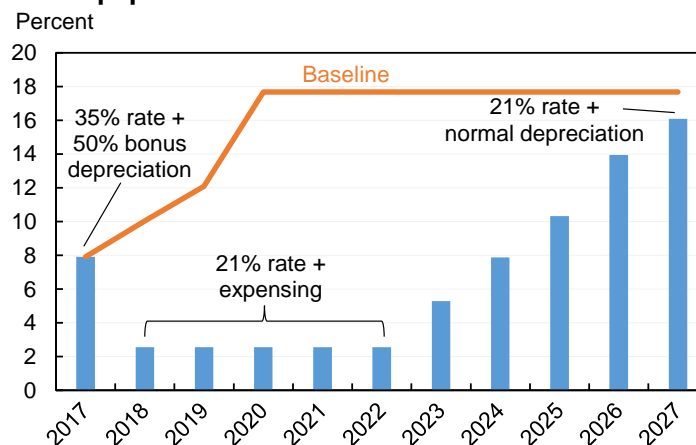
I think we're mostly lawyers, but why don't we try to do the mental exercise of this. Here's my two-part tax plan. I'm going to cut every single tax rate in half; and then you have to pay taxes on twice your income. Who has a dynamic scoring model in their head that's capable of estimating that tax plan?

Okay, so the right answer is zero. A lot of the estimates of advocates of this bill during the bill, and I think, frankly, my successor, Kevin Hassett, who you'll see later, looked at this plan and estimated part one in all sorts of glory, lovely, it's amazing detail, and didn't do part two. And doing part two makes a big difference. To show you it makes a big difference, looking in 2027, reducing the corporate rate, is \$156 billion. That's a big plus in any model.

All this stuff, the manufacturing deduction, expensing, NOLs, is 67. The other business and international is 35. What you really want to do is estimate all of this, not just the 156. And that's what I'll do here.

Let's actually just go straight to this one on equipment.

Effective Marginal Tax Rate on Investment in 7-Year Equipment under the Tax Cuts and Jobs Act



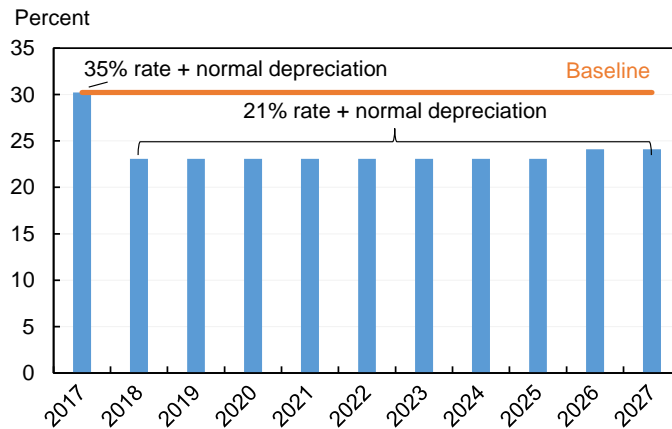
Source: Author's calculations based on Mathur and Kallen (2017).

This is the effective marginal tax rate on equipment investment. It's very similar to what Drew showed you. This past year, last year, it was 8 percent. The reason it was 8 percent was we had bonus depreciation. It's now going to go down to about 2 percent. That's because we get expensing plus a lower rate.

But then after 2022, we take that expensing away, and by 2027, the tax rate on equipment investment, which is on Drew's slides, too, is higher than it is now. And that's because of 21 percent rate plus normal depreciation is a higher effective marginal tax rate than a 35 percent rate plus 50 percent bonus. In other words, in the long run, we would have a lower tax rate on equipment if we had just made the bonus permanent instead of doing everything else that we did in this law. So that's equipment. At first it was an incentive to invest, then less so than now.

The second is structures. That's more straightforward because you're not changing the depreciation rules. I think there was something in the Senate bill that dropped out. There you do have a reduction in the effective marginal tax rate on structures investment.

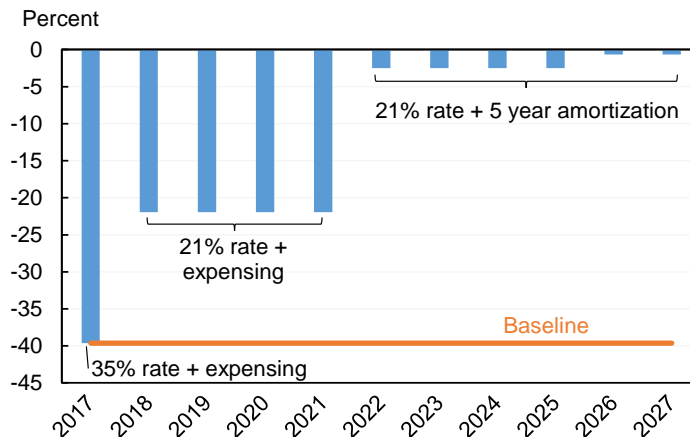
Effective Marginal Tax Rate on Investment in 39-Year Structures under the Tax Cuts and Jobs Act



Source: Author's calculations based on Mathur and Kallen (2017).

The real terrible, terrible thing in this bill that's gotten too little attention, in part because some people think it won't happen, is what would happen to R&D if we took this bill literally. The tax rate now, the effective marginal tax rate, is minus 40. The effective marginal tax rate actually went up this year relative to last year. The reason is because your interest expenses, the deduction is only worth 21 cents instead of 35 cents. And if you have expensing, the lower rate actually raises your effective marginal tax rate because it reduces the value of your interest deduction. So, we've already raised the tax rate on R&D, and if we do five-year amortization we'll raise it even more.

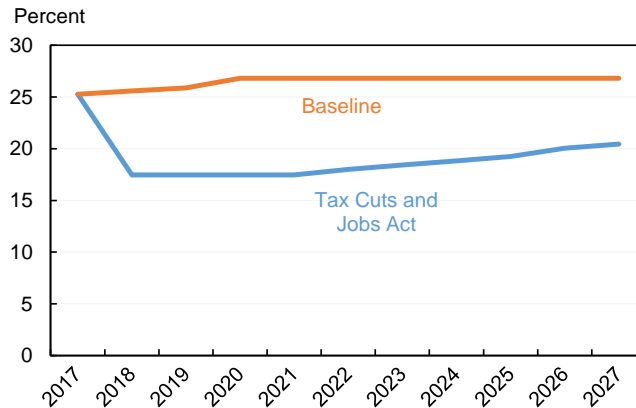
Effective Marginal Tax Rate on Investment in R&D under the Tax Cuts and Jobs Act



Source: Author's calculations based on Mathur and Kallen (2017) and Bureau of Economic Analysis.

Everything I've been showing you is marginal tax rates. Average tax rates, and Drew outlined why, matter as well. Average tax rates are a clearer story of down and staying down over the whole period. Before one gets too excited, though, you want to think not just what's the average tax rate here, but if this is causing tax cuts in other countries, this is just a treadmill. You're not winning from this. We're going somewhere; they're going somewhere because of us. A lot of the average tax rates is about relative tax rates, and it's a little bit complicated, too, because we used to have deferral, and now we have all the other stuff Marty said. The average tax rate investing overseas has probably gone down as a result of this bill, just like the average tax rate here. So, it's pretty complicated to do.

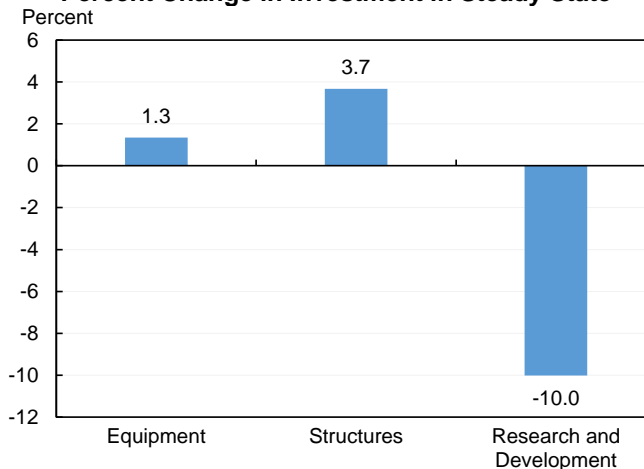
Effective Average Tax Rate on Corporate Investment under the Tax Cuts and Jobs Act



Source: Author's calculations based on Mathur and Kallen (2017) and Bureau of Economic Analysis.

Put all of this together and I would predict in the long run the level of equipment would go up by 1 percent, structures would go up by 4 percent, and of R&D would go down by 10 percent. You take all of those together, that is an increase in the level of capital because we have more equipment and structures than we have R&D, but I think it's a much worse composition of capital. Again, this is all taking the law literally.

Percent Change in Investment in Steady State



Source: Author's calculations based on Mathur and Kallen (2017) and Bureau of Economic Analysis.

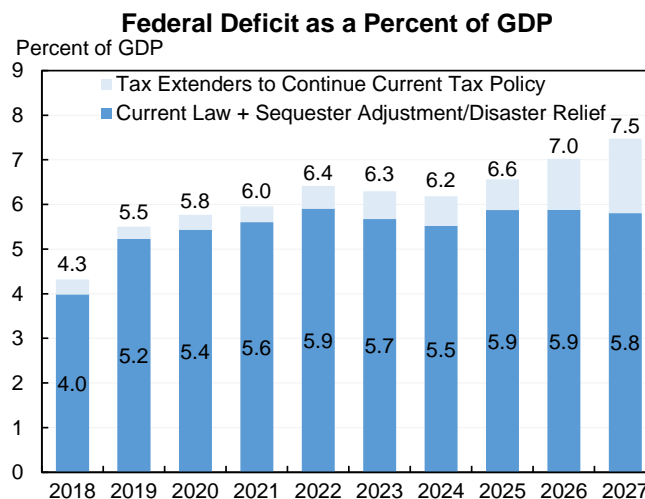
I won't really talk about this, but the debt equity tax differential gets reversed, so there's more of a tax incentive. Lower tax rate for equity-financed investment now instead of debt-financed investment. If you take all of this, one way to summarize everything I've done is this top row from the American Enterprise Institute, Aparna Mathur and Cody Kallen looked at the 20 percent corporate alone and said it was 1.64 in the long run.

AEI Model (Mathur and Kallen)		
	Change in Ten-Year Annual Growth Rate	Change in Long-run Output Level
Effect of rate reductions alone	0.08 p.p.	1.64%
Percent reduction to growth based on raisers and crowd out		
Adjustment for repeal of domestic production deduction		9%
Adjustment for R&E amortization		22%
Adjustment for limitation of interest deduction		21%
Adjustment for other raisers		11%
Deficit crowd out (interest rates +15 bp)		19%
Effect of all corporate provisions	0.00 p.p.	0.30%

Now, this is like 50 years from now, about a tenth a year. If you take all the different pieces of it -- amortization, limitation on interest deductions, et cetera -- and subtract them all out, I then make a really conservative assumption that it's going to drive interest rates up by 15 basis points, which may have been disproven in the two weeks since I submitted this presentation. You get yourself down to 0.3 on the level in the long run, which works out to, like, if you went to the third decimal place you would have seen something on the growth rate.

Now, this misses a bunch of stuff. It misses the composition of capital, which I think will improve. It misses the fact that R&D is really important. That goes down. That's a bad thing. But the biggest thing it misses is future legislation; that is going to matter just as much as this. What's going to happen to the extenders? Are the delayed offsets going to happen? What's going to happen to expensing after 2022? Everything expires in 2025.

And then, most importantly, when you have a deficit that is projected to be 5 percent of GDP rising to 7 percent of GDP, there is going to be future fiscal legislation. I think it's going to raise taxes and uncut spending. I don't know in what ratio. I don't know how. But that's going to matter quite a lot for evaluating our economic future.



Source: Committee for a Responsible Federal Budget; Congressional Budget Office; author's calculations.

For those of you that automatically think everything's going to get extended and all the offsets are going to get delayed, that debate's going to happen around here. The deficit -- and this is a pretty good case, like no recession, no war, no disaster, interest rates staying low. We're going to be having those debates about whether to delay these offsets or extend these provisions when our deficit is really, really large. The politics of that might be different than what it's been in the past.

MR. SULLIVAN: And we need to be at 3 percent at minimum to have stability.

MR. FURMAN: Yeah, exactly. Three percent is sort of my mental target. Three percent on average. In good years, you want to be better than 3 percent bad years, and those are really good years. That's like the peak of our economy, and that's where we are.

Okay, so substantial future tax legislation is inevitable. There's the legislated instability, there's the economic stability of rising deficits, and there's the political instability of the lack of bipartisan buy-in for this legislation. In terms of what I think the next tax reform should look like, it should focus on stability, all the provisions of the law should be permanent, but the law should also raise enough revenue. We're going to have to come back three years later with a new tax law.

It should be more efficient. I actually think we can improve the base while raising rates if we do things like make expensing permanent but then be more aggressive on interest deductions, new taxes like that,

carbon taxes, not any taxes I don't like.

Simplicity, I think, rather than taking the form from that size and making it that size, we should get rid of it entirely, have return-free filing. That's what a lot of other advanced economies do. They do either exact withholding at source or prefilled tax returns. That would be real simplicity for people. We should be doing more to help working families and the middle class with things like childless, the ITC, and fully refundable child allowance. Thank you.

MR. GUTMAN: Jason, you have these deficit numbers here. They're pretty huge as a percentage of GDP on an annual basis, and they're also pretty huge when you aggregate them and you look at the amount of national debt that that's going to accumulate and that will exceed GDP by some point.

Now, maybe that doesn't matter so much. Does it matter? Why do we care?

MR. FURMAN: I'd say four things. One, this is a bill that, as Marty said very well, somebody else has to pay. It isn't a tax cut; it's shifting of cost to the future. It's not magic money.

Second of all, when we eventually have to repay it, we are going to have less to repay it. Our capital stock will be smaller because interest rates will go up. You can argue whether it's five basis points or 200 basis points, but they're going to go up to get less investment.

Third, it increases foreign borrowing, and so that means more of our economy will be devoted to making stuff to repaying foreigners rather than for our own benefit.

Then the last two things I'd say is it reduces our flexibility to respond to contingencies in the future like another recession or war. And then, finally, I'm not in the fiscal crisis crowd, but I think this is more like termites in the woodwork. Every year will be a bit worse than the last, but I'm not confident that is right, and I wouldn't want to attest to the proposition.

MR. SULLIVAN: Just for historical perspective, when Ronald Reagan did his tax cuts in 1981, our debt-to-GDP ratio was 25 percent. He promised he was going to balance the budget in four years, but it didn't work out. He ended up with 40 percent of GDP. Right now, we are close to 80 percent of GDP, levels that I think a while ago we thought were unimaginable. And it's not the same as 1981. We're running out of what they call fiscal space. So, I do think there is some concern about financial stability.

MR. GUTMAN: Drew, you want to add to that?

MR. LYON: Under the current policy baselines, if we extend the spending that was just enacted and extend the expiring provisions of TCJA, within this decade, we will exceed a debt-to-GDP ratio of 100 percent. Just before the recession, it was about 35 percent. It's a tremendous increase, but it may push us to a restructuring of both our spending side of the budget and to the reform tax system again, maybe new tax mechanisms Jason pointed to, a valued-added tax. Everyone knows we're the only developed country and almost the only country in the world without a national consumption tax. This could push us to a more efficient tax structure as well.

MR. GUTMAN: Well, I'd like to go back to this slide because obviously it shows a contrast in predictions about what's going to happen, and we'll have a discussion of at least the Council of Economic Advisers' current view shortly. Jason, does this take into account the predictions with respect to deficit effects as well?

MR. FURMAN: Those bottom four just look at the corporate tax rate. They don't look at the offsets. They don't look at the deficit. Those top five, most of those models have some form of crowd-out in them where they're taking into account the deficit. The Tax Foundation does not, but the other four do.

MR. SULLIVAN: If you take out the crowding-out effect, you get much larger numbers, but that's not realistic.

MR. LYON: We need roughly 3 percent extra GDP growth by year ten to make the TCJA revenue-neutral. We essentially need to increase growth from 2 percent a year real growth to 2.3 percent a year and continue that for ten years.

MR. FURMAN: We got rid of the extenders as part of the TCJA. So, if you're trying to pay for \$1.5 trillion, you're up to about five-tenths. If you think we're going to get rid of things like the R&D amortization, which everyone thinks we're going to get rid of, then you're actually up to eight-tenths. If you want to pay for the full thing without pretending that getting rid of extenders would pay for this bill and then passing extenders a month later, you're at eight-tenths a year, and no one comes close to eight-tenths.

MR. SULLIVAN: I don't think anybody should get kudos for being revenue-neutral when the baseline is already going through the roof. That's a pretty low standard for the fellow who's supposed to be protecting the safety and soundness of the American economy.

MR. GUTMAN: Well, I just saw a zero come up terms of time. I think we've teed up a few issues for later discussion this morning, particularly with respect to growth. I'd like to thank my fellow panelists for their time and their insights. and thank you all for listening.