

## ANALYSIS

# Tax Reform Wild Card

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### Prepared by

Mark Zandi  
[Mark.Zandi@moodys.com](mailto:Mark.Zandi@moodys.com)  
Chief Economist

Chris Lafakis  
[Chris.Lafakis@moodys.com](mailto:Chris.Lafakis@moodys.com)  
Director

Bernard Yaros  
[Bernard.YarosJr@moodys.com](mailto:Bernard.YarosJr@moodys.com)  
Economist

### Contact Us

Email  
[help@economy.com](mailto:help@economy.com)

U.S./Canada  
+1.866.275.3266

EMEA  
+44.20.7772.5454 (London)  
+420.224.222.929 (Prague)

Asia/Pacific  
+852.3551.3077

All Others  
+1.610.235.5299

Web  
[www.economy.com](http://www.economy.com)  
[www.moodysanalytics.com](http://www.moodysanalytics.com)

### Introduction

Efforts to cut taxes and reform the tax code are in full swing. Both the House Ways and Means Committee and the Senate Finance Committee have released their versions of tax reform. Congressional Republicans want to go big on tax cuts, with both plans targeting 10-year static deficits—ignoring the impact of the tax cuts on the economy and thus tax revenues—of close to \$1.5 trillion, or 7.5% of current GDP.

This white paper assesses the impact of both tax proposals on the economy and the federal government's fiscal situation over the next decade. If either plan became law as proposed, neither would materially increase long-run economic growth, but each would add significantly to the government's deficits and debt load.

# Tax Reform Wild Card

BY MARK ZANDI, CHRIS LAFAKIS AND BERNARD YAROS

**E**fforts to cut taxes and reform the tax code are in full swing. Both the House Ways and Means Committee and the Senate Finance Committee have released their versions of tax reform. Congressional Republicans want to go big on tax cuts, with both plans targeting 10-year static deficits—ignoring the impact of the tax cuts on the economy and thus tax revenues—of close to \$1.5 trillion, or 7.5% of current GDP.

This white paper assesses the impact of both tax proposals on the economy and the federal government's fiscal situation over the next decade. If either plan became law as proposed, neither would materially increase long-run economic growth, but each would add significantly to the government's deficits and debt load.

## Businesses win big

Businesses are big beneficiaries under both the House and Senate tax plans. Of the \$1.5 trillion price tag, more than \$1 trillion goes to businesses in the House plan and closer to \$900 billion in the Senate plan (see Table 1).<sup>1</sup> Breaking this down a bit more, the House plan would give corporations a net tax cut of almost \$600 billion over 10 years on a static basis, and smaller pass-through entities—businesses whose owners pay personal income tax on their companies' earnings—a tax cut of almost \$450 billion. The Senate plan would reduce corporate taxes by a similar \$600 billion, although it delays the reduction in the top corporate marginal rate by a year, but it gives pass-throughs a smaller \$300 billion cut.

Large multinational corporations would benefit substantially under both plans by a move from the current global taxation system—the corporations' worldwide earnings are taxed at the U.S. rate—to a territorial one—the corporations' U.S. earnings are taxed at the U.S. rate and there is a lower tax on overseas earnings. They will also enjoy a

onetime tax holiday on the trillions in earnings they now hold overseas to avoid the current high tax rate. However, the House plan is somewhat less friendly to multinationals in that it imposes an excise tax on payments made by U.S. companies to their foreign subsidiaries.

The biggest corporate tax expense in the plans is the proposed reduction in the top marginal rate from 35% to 20% and the repeal of the corporate alternative minimum tax.<sup>2</sup> Lowering the top tax rate on pass-through income and allowing businesses to reduce their tax bill by fully expensing their investment for at least five years are also costly. To help pay for this largess, various business-related tax loopholes are eliminated or scaled back, and the deductibility of interest payments made by businesses is partially limited.

## Individual winners and losers

Tax breaks for individuals are more modest, amounting to \$400 billion under the House plan over 10 years on a static basis and \$600 billion under the Senate plan. The big winners are taxpayers in the top 5%, with current incomes of well more than \$300,000 per year, whose after-tax income increases by more than 2% in 2018 and near 1.5% by 2027.<sup>3</sup> Low-income taxpayers in the bottom 60%, with current incomes of less than \$86,000, get a 1% tax cut in 2018 and essentially no tax cut by 2027. Middle-income taxpayers receive a tax cut

of approximately 1.5% in 2018 and less than 0.5% by 2027.

The biggest individual tax expenses are the proposal to reduce marginal rates, eliminate the alternative minimum tax, and significantly increase the standard deduction and child tax credit. The House would eliminate the estate tax and alternative minimum tax—a boon to wealthy households—while the Senate would be a bit less generous, eliminating the AMT but only increasing the amount of wealth exempted from the estate tax. The House and Senate diverge somewhat on how to help pay for all this. The House would repeal itemized deductions except for mortgage interest, investment interest, charitable contributions, and up to \$10,000 in real property taxes. The Senate would eliminate all deductions for state and local income, sales tax, and property taxes.

## Stronger growth?

Boosters of the tax proposals argue that they will significantly increase economic growth. The most common refrain is that the tax cuts will lift real GDP growth closer to 3% per annum from the approximately 2% that has prevailed during the current expansion. They also argue that this additional growth will generate roughly enough additional tax revenue for the plan to pay for itself. That is, there would be large so-called supply-side effects from the tax cuts. So large that on a dynamic basis—after accounting for the bigger economy—the

**Table 1: Comparison of House Ways and Means and Senate Finance Committee Tax Plans***Static cost from 2018 to 2027, \$ bil*

Senate Finance Committee Tax Plan		House Ways and Means Tax Plan	
<b>Net Cost</b>	<b>(1,496)</b>	<b>Net Cost</b>	<b>(1,414)</b>
Personal income tax	(618)	Personal income tax	(400)
10%, 12%, 22.5%, 25%, 32.5, 35% and 38.5% income tax rate brackets; alternative inflation measure	(1,195)	12%, 25%, 35% and 39.6% income tax rates with phase-out of 12% income tax bracket for taxpayers with taxable income above \$1 mil (\$1.2 mil for joint filers); alternative inflation measure	(961)
Repeal of Alternative Minimum Tax on individuals	(707)	Repeal of Alternative Minimum Tax on individuals	(696)
Modify standard deduction (\$12,000 for singles, \$24,000 for married filing jointly, \$18,000 for head of household)	(920)	Modify standard deduction (\$12,200 for singles, \$24,400 for married filing jointly, \$18,300 for head of household; index for inflation for yrs beginning after 2019)	(921)
Modification of child tax credit (\$1,650 not indexed; refundable up to \$1,000 indexed up to nearest \$100 base yr 2017; \$2,500 refundability threshold not indexed; \$500 other dependents not indexed; phase-outs \$500,000/\$1 mil not indexed; increase eligibility to less than 18 yrs old); valid Social Security number requirements	(558)	\$1,600 child credit not indexed; refundable up to \$1,000 indexed up to nearest \$100 base yr 2017; \$300 nonrefundable personal credit for all other individuals receiving present-law personal and dependent exemptions (not indexed, sunsets Dec 31, 2022); Increase in phase-out threshold of child credit and application of phase-out to personal credits (\$115k/\$230k, indexed)	(640)
Repeal of itemized deductions for taxes not paid or accrued in a trade or business, interest on home equity debt, non-disaster casualty losses, tax preparation expenses, and certain miscellaneous expenses	1,266	Repeal of itemized deductions except mortgage interest, investment interest, charitable contributions, up to \$10,000 in real property taxes, and certain miscellaneous expenses	1,261
Repeal of deduction for personal exemptions	1,571	Repeal of deduction for personal exemptions	1,562
Other personal base broadeners	18	Other personal base broadeners	167
Double estate, gift and GST tax exemption amount	(94)	Double estate, gift, and GST tax exemption amount; after 2023 repeal estate and GST taxes and reduce gift tax rate to 35%	(172)
<b>Corporate income tax</b>	<b>(887)</b>	<b>Corporate income tax</b>	<b>(1,017)</b>
20% corporate tax rate in 2019 and thereafter	(1,329)	Reduction in corporate tax rate to 20%	(1,462)
Repeal of Alternative Minimum Tax on corporations	(40)	Repeal of Alternative Minimum Tax on corporations	(40)
Allow 17.4% deduction to certain domestic non-service pass-through income with exception for service pass-through income to taxpayers with taxable income below \$150,000 for joint filers, \$75,000 for all others, phased out over next \$50,000 for joint filers, \$25,000 for all others, indexed with \$50 round-down rule; includes restriction based on allocated wages; disallow active pass-through losses in excess of \$500,000 for joint filers, \$250,000 for all others	(285)	25% pass-through tax rate	(448)
Increase Section 179 expensing to \$1 mil with a phase-out range beginning at \$2.5 mil and expand definition of qualified property; simplified accounting for small business; provide 100% bonus depreciation for five yrs	(113)	Provide Section 168(k) Expensing for Qualified Investments (sunset Dec 31, 2022); increase Section 179 expensing to \$5 mil with a phase-out beginning at \$20 mil (sunset Dec 31, 2022) and expand to include qualified energy-efficient heating and air-conditioning property; small-business accounting method reform and simplification	(66)
Corporate base broadeners	776	Corporate base broadeners	722
Treatment of deferred foreign income upon transition to participation exemption system of taxation and mandatory inclusion at two-tier rate (5% rate for illiquid assets, 10% rate for liquid assets)	190	Treatment of deferred foreign income upon transition to participation exemption system of taxation and deemed repatriation at two-tier rate (12% rate for liquid assets, 5% rate for illiquid assets)	223
Base erosion and anti-abuse tax	124	Prevention of base erosion	266
Other international tax changes	(209)	Other international tax changes	(211)
Treatment of tax-exempt organizations	9.7	Treatment of tax-exempt organizations	3

Sources: JCT, Moody's Analytics

plan would not add to the nation's deficits and debt.

They are wrong on both counts. Neither the House nor Senate plans would meaningfully improve economic growth, at least not on a sustained basis. Growth would be stronger initially, since the deficit-financed tax cuts are a fiscal stimulus. But given that the economy is operating at full employment, stronger inflation and higher interest rates will result. The economic benefit of the lower tax rates on business investment is washed out by the higher

interest rates, and the economy ends up no bigger than it would have been without the tax cuts.

This is evident in simulations of the Moody's Analytics macro model, which is similar to models used by the Federal Reserve, Congressional Budget Office, and the Joint Committee on Taxation—the official budget scorer of tax legislation.<sup>4</sup> Under the House plan, real GDP growth is 30 basis points higher in 2018, adding close to 500,000 jobs and pushing unemployment below 4% (see Table 2).<sup>5</sup> Since this is well

below the full-employment unemployment rate, which the Federal Reserve and Moody's Analytics estimate to be 4.5%, the Fed responds by tightening monetary policy more aggressively. Long-term interest rates also increase because of the monetary tightening and investor expectations of larger future budget deficits.<sup>6</sup> Although lower corporate tax rates by themselves would incent more business investment because of the resulting lower after-tax cost of capital, the higher interest rates largely wash this out by increasing the cost of capital.<sup>7</sup> In the end, the

**Table 2: Difference Between House Ways and Means Tax Plan and Current Law**

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	Avg annual growth	
											2017-2022	2017-2027
Real GDP, 2009\$ bil	50.9	48.6	10.0	73.2	122.4	39.7	62.1	76.7	84.5	68.7	0.13	0.03
<i>% change</i>	<i>0.30</i>	<i>-0.02</i>	<i>-0.22</i>	<i>0.35</i>	<i>0.26</i>	<i>-0.45</i>	<i>0.11</i>	<i>0.07</i>	<i>0.03</i>	<i>-0.08</i>		
Employment, mil	0.368	0.462	0.076	0.501	0.970	0.376	0.440	0.580	0.644	0.535	0.13	0.03
<i>% change</i>	<i>0.25</i>	<i>0.06</i>	<i>-0.26</i>	<i>0.28</i>	<i>0.31</i>	<i>-0.40</i>	<i>0.04</i>	<i>0.09</i>	<i>0.04</i>	<i>-0.07</i>		
Real median household income, 2009\$	60.9	95.7	80.2	148.1	192.5	110.2	115.6	127.0	128.2	108.1	0.07	0.02
<i>% change</i>	<i>0.12</i>	<i>0.07</i>	<i>-0.03</i>	<i>0.13</i>	<i>0.08</i>	<i>-0.16</i>	<i>0.01</i>	<i>0.02</i>	<i>0.00</i>	<i>-0.04</i>		
Consumer Price Index, 1980-1982=100	0.0	0.1	0.0	-0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.01	0.02
<i>% change</i>	<i>0.01</i>	<i>0.02</i>	<i>-0.02</i>	<i>-0.02</i>	<i>0.04</i>	<i>0.03</i>	<i>0.03</i>	<i>0.03</i>	<i>0.04</i>	<i>0.04</i>		
S&P 500 Stock Index	154.2	140.0	113.6	106.2	104.4	57.3	50.9	60.4	68.9	69.6	0.73	0.19
<i>% change</i>	<i>6.40</i>	<i>-0.23</i>	<i>-1.41</i>	<i>-0.82</i>	<i>-0.41</i>	<i>-1.79</i>	<i>-0.31</i>	<i>0.20</i>	<i>0.15</i>	<i>-0.07</i>		
FHFA House Price Index	-5.4	-17.9	-18.9	-18.0	-17.3	-15.9	-14.5	-13.2	-12.1	-11.4	-0.79	-0.22
<i>% change</i>	<i>-1.35</i>	<i>-3.00</i>	<i>-0.18</i>	<i>0.33</i>	<i>0.29</i>	<i>0.44</i>	<i>0.43</i>	<i>0.37</i>	<i>0.30</i>	<i>0.21</i>		
Unemployment rate, %	-0.21	-0.26	-0.03	-0.26	-0.53	-0.19	-0.20	-0.28	-0.31	-0.23	<b>Avg</b>	-0.25
Federal funds rate, %	0.04	0.09	0.10	0.06	0.18	0.24	0.22	0.22	0.24	0.25	0.09	0.16
10-yr Treasury yield, %	0.11	0.32	0.44	0.49	0.54	0.60	0.64	0.64	0.64	0.66	0.38	0.51
Federal government debt, \$ bil	43.9	212.4	471.2	712.9	899.0	1,050.2	1,154.9	1,247.4	1,383.1	1,569.3		
Debt-to-GDP ratio, %	0.01	0.83	2.20	2.87	3.23	4.01	4.14	4.23	4.48	4.99		
Federal budget deficit, \$ bil	-86.3	-194.0	-223.7	-185.1	-147.6	-128.7	-80.0	-114.4	-149.3	-200.9	<b>Cumulative sum</b>	-1510
Deficit-to-GDP ratio, %	-0.41	-0.90	-1.02	-0.79	-0.59	-0.50	-0.29	-0.40	-0.51	-0.67		
Government interest payments - federal, \$ bil	1.64	9.73	21.55	33.47	47.42	58.40	66.62	75.55	84.00	91.71		
Interest-to-GDP ratio, %	-0.00	0.04	0.10	0.14	0.18	0.23	0.24	0.26	0.28	0.30		

Sources: BEA, BLS, S&P, FHFA, Treasury, Moody's Analytics

Table 3: Difference Between Senate Finance Committee Tax Plan and Current Law

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	Avg annual growth	
											2017-2022	2017-2027
Real GDP, 2009\$ bil	12.0	31.4	6.8	64.5	105.9	37.8	77.0	80.3	91.4	79.4	0.11	0.04
% change	0.07	0.11	-0.14	0.32	0.22	-0.37	0.20	0.01	0.05	-0.07		
Employment, mil	0.084	0.279	0.047	0.437	0.841	0.340	0.545	0.615	0.683	0.611	0.11	0.04
% change	0.06	0.13	-0.16	0.26	0.26	-0.33	0.13	0.04	0.04	-0.05		
Real median household income, 2009\$	25.5	67.7	73.2	142.2	183.3	115.9	138.2	136.8	141.1	126.8	0.07	0.02
% change	0.05	0.08	0.01	0.13	0.07	-0.13	0.04	-0.00	0.01	-0.03		
Consumer Price Index, 1980-1982=100	0.0	0.0	-0.1	-0.1	-0.0	0.0	0.1	0.2	0.4	0.5	-0.00	0.02
% change	0.00	0.01	-0.03	-0.02	0.03	0.02	0.03	0.04	0.05	0.05		
S&P 500 Stock Index	105.0	115.1	108.1	97.8	89.8	56.7	55.4	53.6	65.8	72.3	0.63	0.20
% change	4.35	0.63	-0.55	-0.92	-0.60	-1.30	-0.14	-0.14	0.27	0.09		
FHFA House Price Index	-5.4	-18.0	-19.3	-18.8	-18.7	-17.8	-16.4	-14.6	-13.0	-11.6	-0.85	-0.22
% change	-1.35	-3.02	-0.24	0.22	0.15	0.36	0.45	0.48	0.43	0.34		
											<b>Avg</b>	
Unemployment rate, %	-0.05	-0.16	-0.02	-0.23	-0.46	-0.18	-0.27	-0.31	-0.34	-0.28	-0.19	-0.23
Federal funds rate, %	0.00	0.03	0.04	0.02	0.14	0.20	0.21	0.23	0.26	0.28	0.05	0.14
10-yr Treasury yield, %	0.10	0.30	0.43	0.53	0.61	0.65	0.67	0.67	0.69	0.70	0.39	0.53
Federal government debt, \$ bil	-0.7	84.5	308.3	538.8	720.0	895.6	1,057.2	1,195.5	1,366.7	1,600.4		
Debt-to-GDP ratio, %	-0.04	0.31	1.49	2.17	2.59	3.44	3.73	4.05	4.42	5.06		
											<b>Cumulative sum</b>	
Federal budget deficit, \$ bil	-4.2	-149.2	-206.1	-176.7	-146.4	-164.8	-127.2	-141.1	-182.0	-247.4	-683	-1545
Deficit-to-GDP ratio, %	-0.02	-0.70	-0.94	-0.76	-0.59	-0.65	-0.47	-0.50	-0.62	-0.82		
Government interest payments - federal, \$ bil	0.53	5.36	15.72	27.86	42.52	54.48	64.82	76.01	86.26	96.36		
Interest-to-GDP ratio, %	0.00	0.02	0.08	0.11	0.16	0.21	0.24	0.27	0.29	0.31		

Sources: BEA, BLS, S&amp;P, FHFA, Treasury, Moody's Analytics

economic lift from the tax cuts is small, adding an estimated 3 basis points per annum to real GDP growth over the next decade. The tax plan does not increase growth from 2% to 3%, as the proponents argue, but from 2% to 2.03%.

The economic impact of the Senate plan is similar, although real GDP growth is not quite 10 basis points higher in 2018 and 2019, as the lower corporate tax rates do not take effect until 2019 (see Table 3). Growth under the Senate plan is a bit stronger in the longer run than that under the House plan,

adding 4 basis points per annum to real GDP growth over the next decade.

### Higher stock prices, lower house prices

The House and Senate tax reform plans will lift stock prices but reduce house prices. Stock prices receive a lift given the higher after-tax earnings of large publicly traded companies, although this is partially offset by the impact of the higher interest rates on the multiple that investors are willing to put on those earnings. Accounting for these crosscurrents, and the uncertainty with re-

gard to whether the lower tax rates will be permanent after the 10-year budget horizon, the tax plans should lift stock prices by 10% to 15%.

Some of this increase in stock prices has already occurred as investors have discounted some probability of tax reform happening. This probability appeared to rise sharply immediately after last year's presidential election, when stock prices increased significantly, especially for tax-sensitive companies. Investors seemed to be much less sure this summer as Republican attempts to

repeal the Affordable Care Act failed. At the current time, investors are attaching about even odds to reform. Therefore, if the House or Senate tax plans become law, then stock prices should enjoy another mid-single-digit percentage bump.

House prices suffer under both the House and Senate plans. The tax law changes significantly reduce the value of the mortgage interest deduction, or MID, and property tax deductions, which are capitalized in current house prices. Also, the higher mortgage rates that result from the higher deficits and debt under the plans weaken housing demand. Both plans reduce the value of the MID by doubling the standard deduction, significantly reducing the number of households that itemize and thus take advantage of the MID. The House plan also limits the deduction for property taxes up to \$10,000, while the Senate plan does away with the property tax deduction altogether.

Considering all of this, the hit to national house prices is estimated to be as much as 5%. The impact on house prices is much greater for higher-priced homes, especially in parts of the country where incomes are higher and there are thus a disproportionate number of itemizers, and where homeowners have big property tax bills.<sup>8</sup> The Northeast Corridor, South Florida, big midwestern cities, and the West Coast will suffer the biggest price declines (see Chart 1). Counties such as Westchester NY, Cook IL and Delaware PA will experience double-digit price declines.

The impact on the broader national economy of the higher stock prices and lower house prices is largely a wash. The principal channel through which changing asset prices impact growth is on consumer spending via the wealth effect—the change in spending due to a change in wealth. Stock wealth rises a bit more than housing wealth declines because of the tax law changes, but the housing wealth effect is currently a bit larger than the stock wealth effect.<sup>9</sup>

### Big dynamic deficits

The House and Senate tax plans will significantly exacerbate the nation's fiscal problems. On a static basis, the tax plan will cost taxpayers \$1.5 trillion over the next de-

cade. On a dynamic basis, the price tag is not much different. Though there are economic benefits on revenues from the lower marginal rates, they are not sufficient to pay for the cuts. Government borrowing thus increases, causing interest payments on the accumulating debt to rise. The added interest payments offset the economic benefits on revenues, making the static and dynamic budget deficit and debt load about the same.

Under both plans, the government's debt-to-GDP ratio rises from just over 75% today to almost 100% a decade from now, measured on either a static or a dynamic basis. By comparison, with no changes to tax policy, the debt-to-GDP ratio still would rise significantly, but only to 95%. Neither prospect is attractive, but a tax plan that adds significantly to the government's debt load is bad policy.

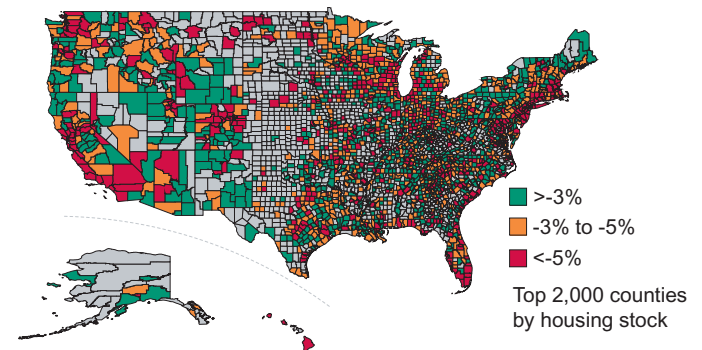
### Plusses and minuses

There are aspects of the tax plan that are difficult to model and quantify: Some add to economic growth, and others detract from it, but on net these largely cancel each other out. Moving from a global to a territorial system will stop inversions by U.S.-based multinationals, ensuring more headquarters stay here. Limiting the deductibility of interest payments would also curb businesses' use of debt in financing their activities. Given the nation's experience with too much leverage, and the already-high levels of debt at nonfinancial corporations, this would be a plus.

The most significant unquantifiable drawback of the plan is that it will likely sunset in 10 years. Under Senate rules, tax and spending legislation that passes using the reconciliation process, in which only a simple majority of votes is required, must be deficit neutral by the last year of the 10-year budget horizon. If the JCT-scored legislation shows that there will be a deficit a decade

## Chart 1: House Prices Take a Hit Under Tax Plans

Peak change in FHFA house prices, %



Sources: Census Bureau, FFIEC, Freddie Mac, Zillow, Moody's Analytics

from now, then all of the provisions in that legislation expire. This is likely the fate of the Republican tax plan. Uncertainty over how future lawmakers would deal with this tax cliff will likely crimp business investment, particularly longer-lived riskier types of investment, as the cliff comes into view.

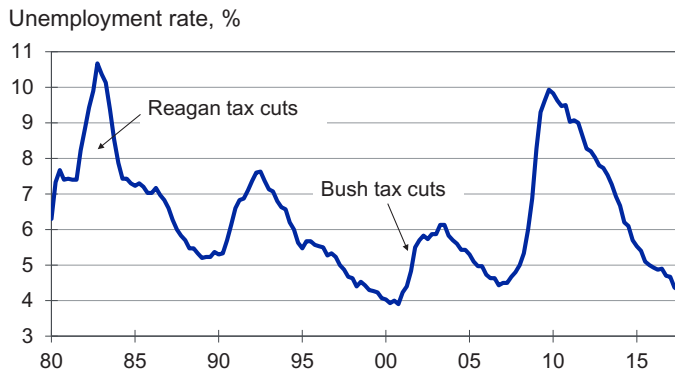
Making the tax code simpler, and thus more transparent and efficient, would be an economic plus. However, it is unclear that the tax plan accomplishes this. Scaling back the number of individual tax brackets and eliminating various loopholes will streamline the tax code. But reducing the top tax rate on pass-through income to below the top personal tax rate means higher-income individuals likely will try to pass themselves off as pass-through entities. Curtailing such gaming will complicate the code.

### Bad timing

It is particularly bad timing for deficit-financed tax cuts. This is evident when considering the economic and fiscal backdrop during the last two major tax cuts—the Reagan cuts of the early 1980s and the Bush cuts of 2001. Those cuts were bigger than what the House and Senate currently have planned—about 12% of GDP—but they became law when the economy was struggling and the fiscal situation was substantially better than today.

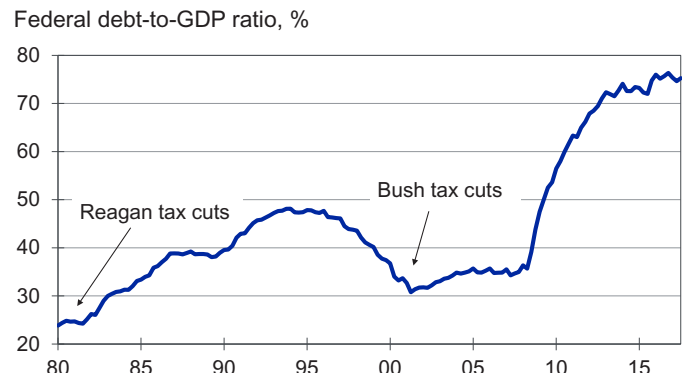
The early 1980s were a time of serious economic stress, with rampant double-digit unemployment and the bursting of the stock market bubble, and 9/11 pushed the economy into recession in 2001. Unemploy-

**Chart 2: Unemployment Is Much Lower Today...**



Sources: BLS, Moody's Analytics

**Chart 3: ...And Fiscal Situation Is Much Worse**



Sources: BLS, Moody's Analytics

ment today is near 4%, and even with no tax cuts, is widely expected to fall below 4% in coming months, consistent with the lowest unemployment rates in the nation's history (see Chart 2). Most businesses are already complaining that they cannot find qualified workers to fill their record number of open job positions. Inflation is still low, but policymakers at the Federal Reserve believe it is set to accelerate even without a push from a deficit-financed tax cut.

The government's finances were also much better prior to the Reagan and Bush tax cuts. Tax revenues as a share of GDP were close to a record 19% of GDP, compared with 17% today (see Chart 3). Indeed, revenues have averaged almost precisely 17% over the past half century. It is thus difficult to argue that collectively we are over-taxed, at least not by any historical standard. Debt loads were also much lower prior to past tax cuts—25% of GDP under Reagan and just over 30% under Bush. This compares to more than 75% today. Perhaps even more important, the concern back in the early 2000s was that the country would be running government surpluses and there would be a lack of Treasury securities to trade.<sup>10</sup> Today, the fiscal outlook is dark even without a deficit-financed tax cut.<sup>11</sup>

**Well-designed tax reform**

None of this is to say that policymakers should not pass a well-designed tax reform plan. Tax reform that lowers marginal rates, particularly for businesses, but is paid for and does not add to the government's deficits

**Table 4: Well-Designed, Paid-for Tax Reform Reaps Economic Benefits**

*Impact on the level of output, %*

Source	Policy change	Short run	Long run
Gravelle, CRS (2014)	20% reduction in income tax rates	Not reported	0.7-4.0
JCT (2014)	Camp plan	0.1-1.6	Not reported
Treasury (2006)	President's Advisory Panel on Tax Reform		
	Simplified income tax	0.0-0.4	0.2-0.9
	Growth and investment tax	0.1-1.9	1.4-4.8
	Progressive consumption tax	0.2-2.3	1.9-6.0
JCT (2006)	20% cut in federal corporate tax rate		
	Not financed	0.2-0.4	0.0-0.3
	Financed with future spending cuts	0.2-0.4	0.5-0.9
Altig et al. (2001)	Revenue-neutral tax reform	0.5	1.9
	Flat tax with transition relief		

Note: Output measure is (in order of preference if multiple measures are reported) national income, real gross national product, and real gross domestic product. Time period for short-run effects varies across studies, but (in most cases) is an avg over several yrs in the first decade. Long-run effects typically reflect estimates of the change in the steady state level of output.

Sources: Jason Furman, Moody's Analytics

and debt load would result in stronger sustainable economic growth. This is the clear message in the best recent research from the JCT, Congressional Research Service, and academia (see Table 4).

Perhaps the most relevant research is the JCT 2005 study that considered a 20% cut in the federal corporate tax rate under the assumption that the cut was deficit-financed, and also that it was paid for by cuts to government spending. In the long run, consistent with a 10-year budget horizon, a paid-for corporate tax rate cut lifts real

GDP by almost 1%, but a deficit-financed tax cut by only 0.3%. This is consistent with the Moody's Analytics model's results, which show that real GDP is 0.3% higher under the House plan a decade from now, and 0.4% under the Senate plan.

Even under the best designed tax plans, including those that involve more fundamental changes to the tax code such as adopting a progressive consumption tax, the lift to GDP in the long run is still relatively modest, at least compared with the expectations of those who strongly advocate for tax cuts to support

long-term economic growth. According to a study by the Treasury in 2006, the progressive consumption tax lifts real GDP by 6% in the long run, or approximately 0.6% per annum. Paid-for, well-designed tax cuts are a plus for the economy, but they are not a magic elixir.

### What next?

It is a toss-up where the current debate over tax policy will land. The consensus on

the prospects for reform has been all over the place. For the moment, investors appear to believe odds are about even that the Trump administration and Congress will get something done. It is hard to see big deficit-financed tax cuts getting through the Republican Congress, but there are powerful political incentives, including the fast-approaching 2018 mid-term elections, to pass something.

The economic outlook depends in good measure on what happens, or does not happen, in Washington DC in the next few weeks around tax reform. If tax reform efforts fail, it will be an opportunity lost, but it will be better than passing large deficit-financed tax cuts as proposed in the House and Senate tax plans. Good tax reform is difficult to do, and the tax reform proposals policymakers are considering do not get it done.

## Endnotes

- 1 The static budget scores of the [House](#) and [Senate](#) plans are available from the Joint Committee on Taxation.
- 2 A good rule of thumb is that every 1-percentage point change in the top marginal corporate tax rate reduced tax revenues by approximately \$120 billion over 10 years on a static basis, and closer to \$100 billion on a dynamic basis.
- 3 These are the distributional impacts of the [House](#) plan as estimated by the Tax Policy Center. The Joint Committee on Taxation has also estimated the distributional impacts for both the [House](#) and [Senate](#) plans.
- 4 A white paper describing the Moody's Analytics macroeconomic model is available upon request.
- 5 Real median household incomes are close to \$110 higher by 2027 under the House plan and \$125 higher under the Senate plan. This is well below that implied in a study by the Council of Economic Advisors of the relationship between corporate tax rates and wages. One key reason for this is that the CEA study does not consider how lower corporate tax rates are paid for.
- 6 For every 1-percentage point increase in the nation's publicly traded debt-to-GDP ratio, 10-year Treasury yields increase in the Moody's Analytics model by an estimated 4 basis points. Given that the House and Senate plans add 5 percentage points to the debt-to-GDP ratio on a static basis, 10-year yields rise by 20 basis points, all else being equal. The elasticity of 10-year Treasury yields to the stock of Treasury debt estimated by the [Federal Reserve](#) in the context of its quantitative easing policy is closer to 6 basis points.
- 7 The business investment equations in the Moody's Analytics macro model are based on neoclassical investment theory in which investment is determined by an accelerator—the change in the growth in demand—and the cost of capital.
- 8 Prices for lower-priced homes in some parts of the country, particularly in more rural and exurban areas where incomes are lower and itemizing by taxpayers less commonplace, should rise modestly if the tax reform plans become law.
- 9 This is shown in a forthcoming paper "Weighing the Wealth Effects," Zandi, Poi and Hoyt, that is available upon request.
- 10 Then Federal Reserve Chairman Alan Greenspan made this point in 2001 [congressional testimony](#).
- 11 This is clear in the Congressional Budget Office's most recent long-term [budget outlook](#).



## About the Authors

**Mark M. Zandi** is chief economist of Moody's Analytics, where he directs economic research. Moody's Analytics, a subsidiary of Moody's Corp., is a leading provider of economic research, data and analytical tools. Dr. Zandi is a cofounder of Economy.com, which Moody's purchased in 2005.

Dr. Zandi's broad research interests encompass macroeconomics, financial markets and public policy. His recent research has focused on mortgage finance reform and the determinants of mortgage foreclosure and personal bankruptcy. He has analyzed the economic impact of various tax and government spending policies and assessed the appropriate monetary policy response to bubbles in asset markets.

A trusted adviser to policymakers and an influential source of economic analysis for businesses, journalists and the public, Dr. Zandi frequently testifies before Congress on topics including the economic outlook, the nation's daunting fiscal challenges, the merits of fiscal stimulus, financial regulatory reform, and foreclosure mitigation.

Dr. Zandi conducts regular briefings on the economy for corporate boards, trade associations and policymakers at all levels. He is on the board of directors of MGIC, the nation's largest private mortgage insurance company, and The Reinvestment Fund, a large CDFI that makes investments in disadvantaged neighborhoods. He is often quoted in national and global publications and interviewed by major news media outlets, and is a frequent guest on CNBC, NPR, Meet the Press, CNN, and various other national networks and news programs.

Dr. Zandi is the author of *Paying the Price: Ending the Great Recession and Beginning a New American Century*, which provides an assessment of the monetary and fiscal policy response to the Great Recession. His other book, *Financial Shock: A 360° Look at the Subprime Mortgage Implosion, and How to Avoid the Next Financial Crisis*, is described by the New York Times as the "clearest guide" to the financial crisis.

Dr. Zandi earned his BS from the Wharton School at the University of Pennsylvania and his PhD at the University of Pennsylvania. He lives with his wife and three children in the suburbs of Philadelphia.

**Chris Lafakis** is a director at Moody's Analytics. He is the lead developer for the Moody's Analytics U.S. macroeconomic model. He has expertise in model validation, macroeconomics and energy economics. Based in West Chester PA, he also covers the California economy and contributes to Economy.com. Chris has been quoted by media outlets, including CNBC and the Wall Street Journal, and often speaks at economic conferences and events. He received his bachelor's degree in economics from the Georgia Institute of Technology and his master's degree in economics from the University of Alabama.

**Bernard Yaros** is an economist at Moody's Analytics focused primarily on federal fiscal policy. Bernard is responsible for maintaining the Moody's Analytics forecast models for federal government fiscal conditions and state tax revenues. Additionally, he covers Virginia and Puerto Rico, develops forecasts for Switzerland, and manages a database of global subnational forecasts for Europe, Asia and Mexico. Bernard holds an MSc in international trade, finance and development from the Barcelona Graduate School of Economics and a BA in political economy from Williams College.

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