The University of Chicago Booth School of Business

Tax Reform in the United States: Known Unknowns and Unknown Unknowns

by Eric Zwick, Chicago Booth and NBER

Today's Agenda

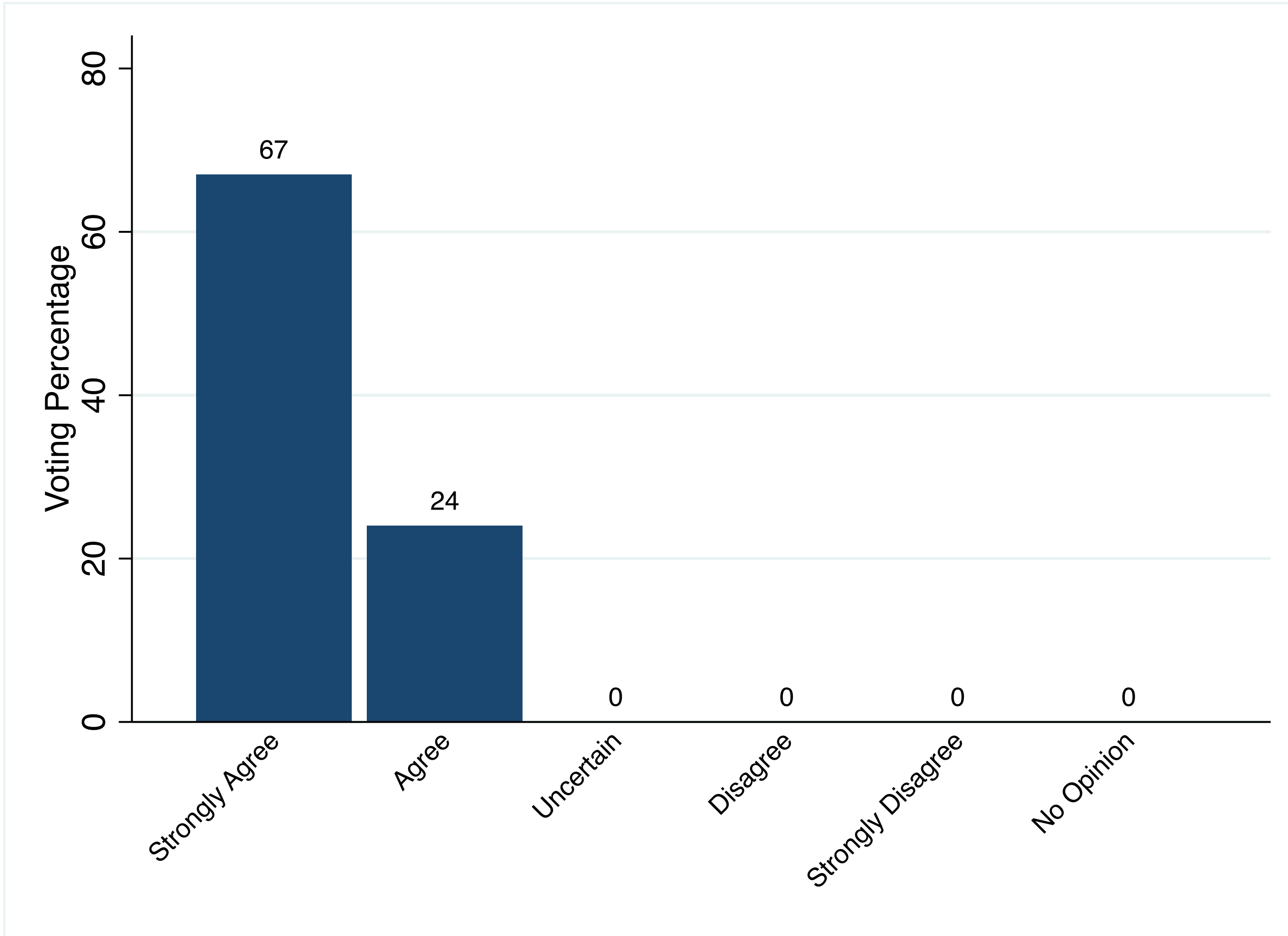
1. **Present**: What are the key provisions in the TCJA of 2017?
   - Top-level summary of business and individual provisions
   - Basic implications from commentators
2. **Past**: Why did the reform look the way it did?
   - Relevant context and past research
   - IGM expert positions on tax policy
3. **Future:** What will happen and what will we learn?
   - Forecasts from policymakers, analysts, IGM experts

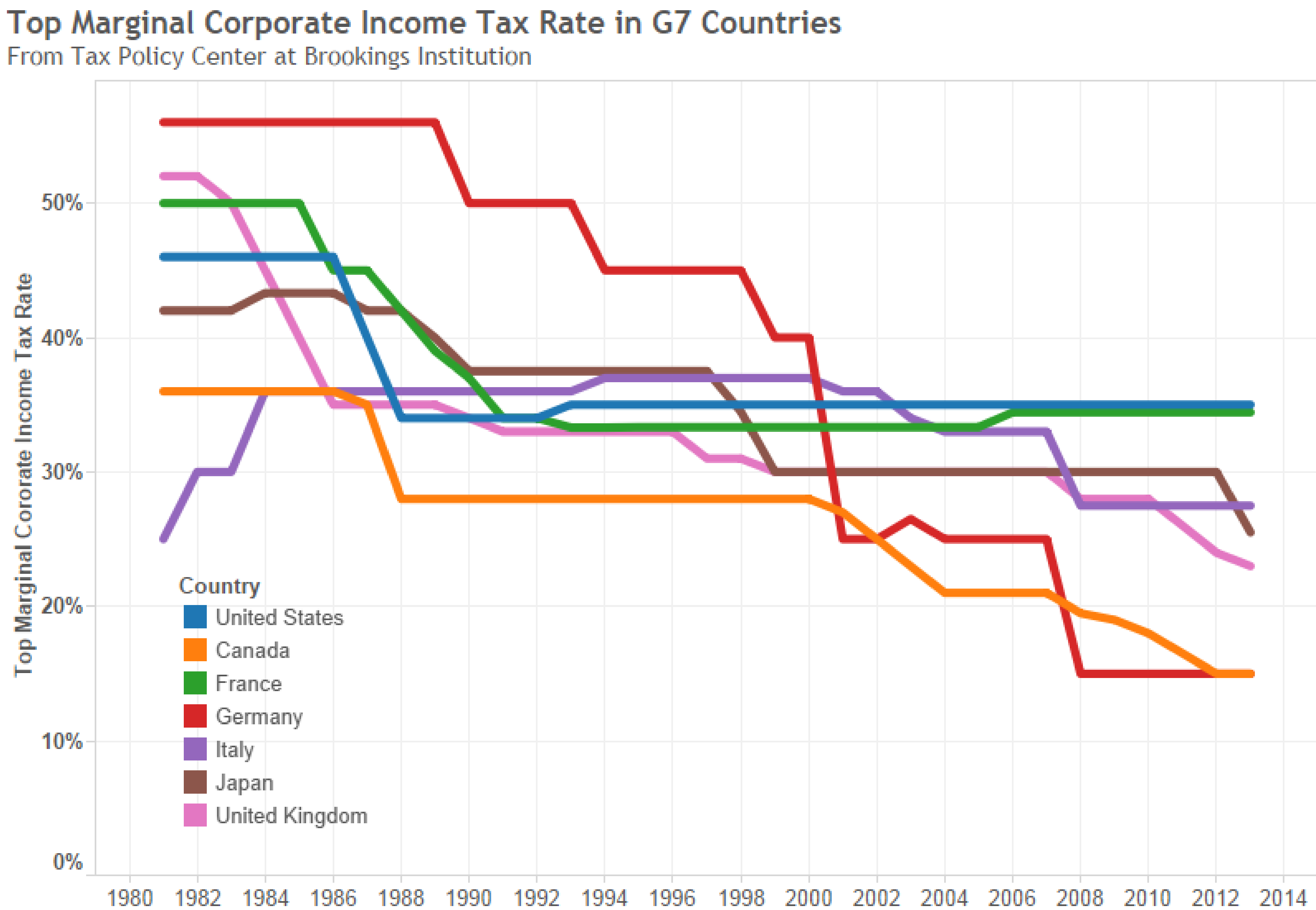
About the Initiative on Global Markets (IGM) Experts Panel

1. Explores the extent to which economists agree or disagree on major public policy issues
2. Chosen to include 40 distinguished experts with a keen interest in public policy
    - from the major areas of economics,
    - to be geographically diverse,
    - to include Democrats, Republicans and Independents as well as older and younger scholars.
3. Nobel Laureates, John Bates Clark Medalists, fellows of the Econometric society, past Presidents of both the American Economics Association and American Finance Association, past Democratic and Republican members of the President's Council of Economics, and past and current editors of the leading journals in the profession.

What Do the IGM Experts Say?

[Tax changes] can affect federal tax revenues partly **by altering people's behavior,** and thus their actual or reported incomes. (02/2015)

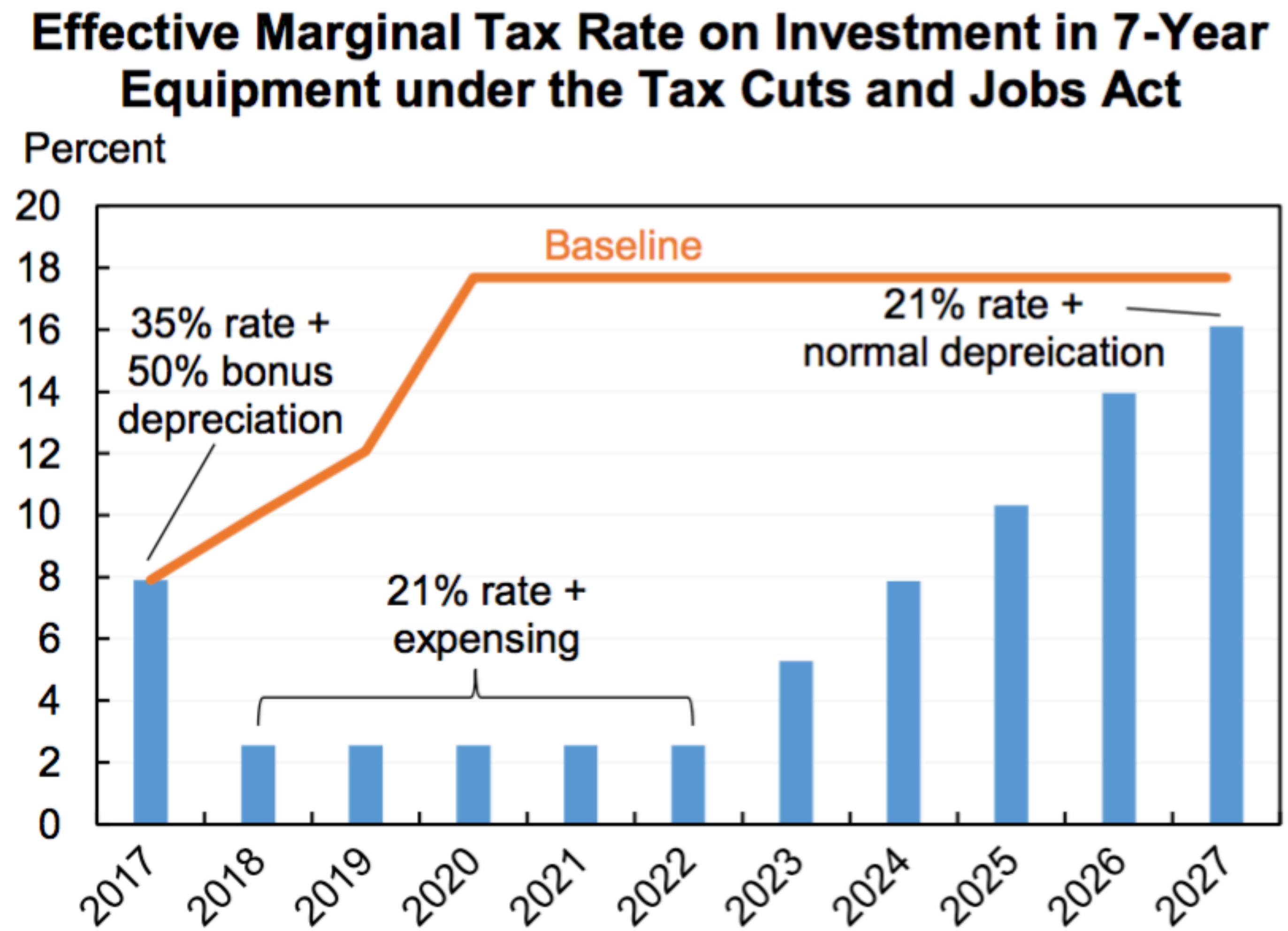



Top Marginal Corporate Income Tax Rate in G7 Countries
From Tax Policy Center at Brookings Institution
Top Marginal Cororate Income Tax Rate
0%
10%
20%
30%
40%
50%
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
2004
2006
2008
2010
2012
2014
Country
United States
Canada
France
Germany
Italy
Japan
United Kingdom

Bucket 1: “Old School” Provisions

1. **Corporate rate.** Set to 21%.
2. **Equipment investment deductions.**
   - Increase section 179 expensing to $1M.
   - Extends bonus depreciation and expands to expensing with phase-out.
3. **R&D deductions.** Shifts from expensing to amortization in 2022.
4. **Interest deductions.**
   - Limit net interest to 30% of adjusted taxable income (EBITDA until 2022 and EBIT after).
   - Real property trades can opt out in favor of very slightly worse depreciation deductions.
   - Does not apply to investment interest/interest income of financials.
5. **NOLs.** Repeals carrybacks. Carryforwards are indefinite, but NOL deduction is capped at 80% of income.
6. **Other.** Repeals Corporate AMT and Domestic Production Activities Deduction (DPAD).

The effective marginal tax rate on equipment investment falls somewhat, then rises sharply

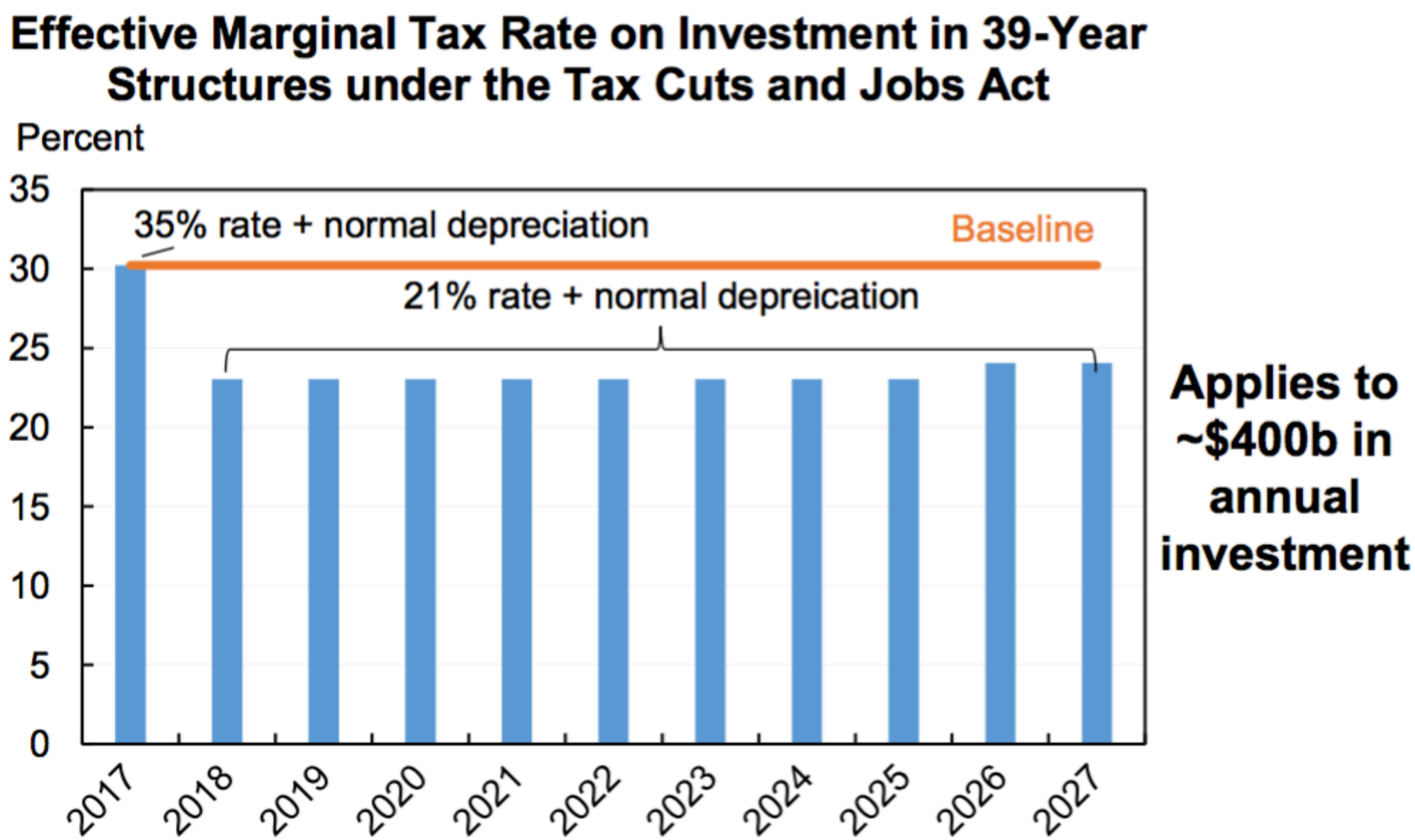


Applies to ~$800b in annual investment

Note: Assumes 32 percent debt financing and 68 percent equity financing. After 2017, assumes that 15 percent of firms are constrained by the interest cap.
Source: Author's calculations based on Mathur and Kallen (2017).

Source: Jason Furman.

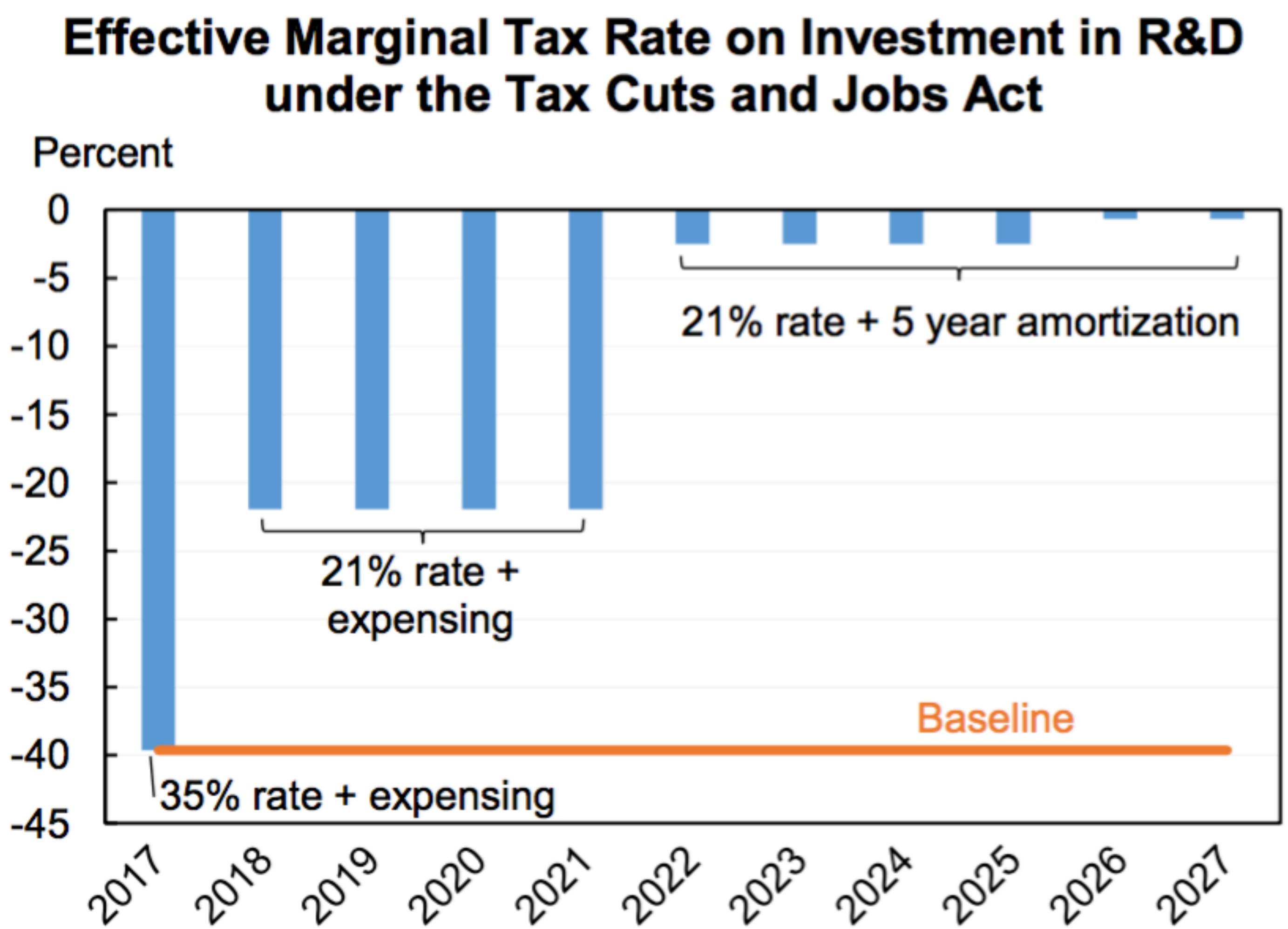
The effective marginal tax rate on structures investment falls



Note: Assumes 32 percent debt financing and 68 percent equity financing. After 2017, assumes that 15 percent of firms are constrained by the interest cap.
Source: Author's calculations based on Mathur and Kallen (2017).

Source: Jason Furman.

The effective marginal tax rate on R&D investment rises substantially

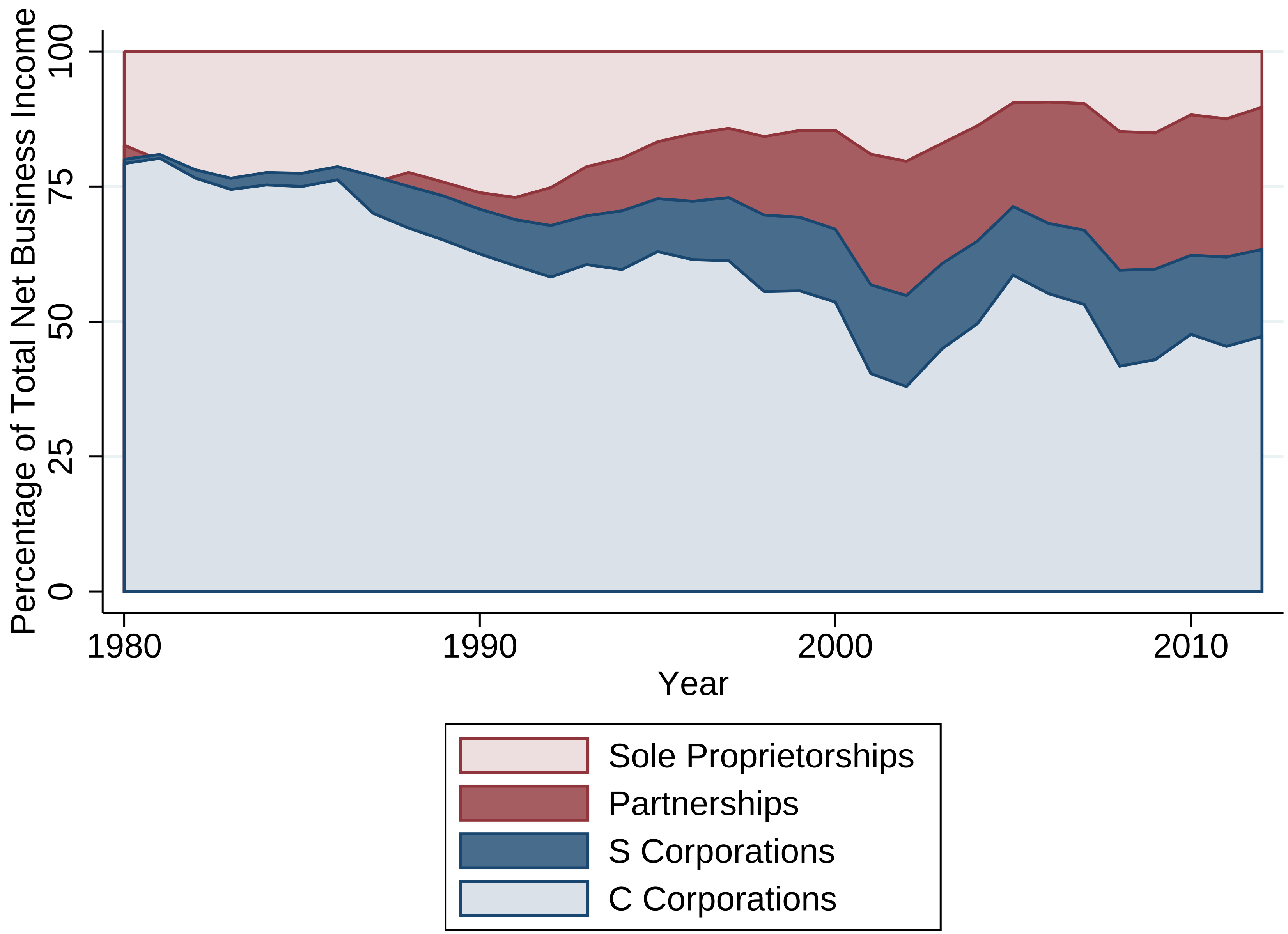


Applies to ~$200b in annual investment

Note: Assumes 32 percent debt financing and 68 percent equity financing. After 2017, assumes that 15 percent of firms are constrained by the interest cap.
Source: Author's calculations based on Mathur and Kallen (2017) and Bureau of Economic Analysis.

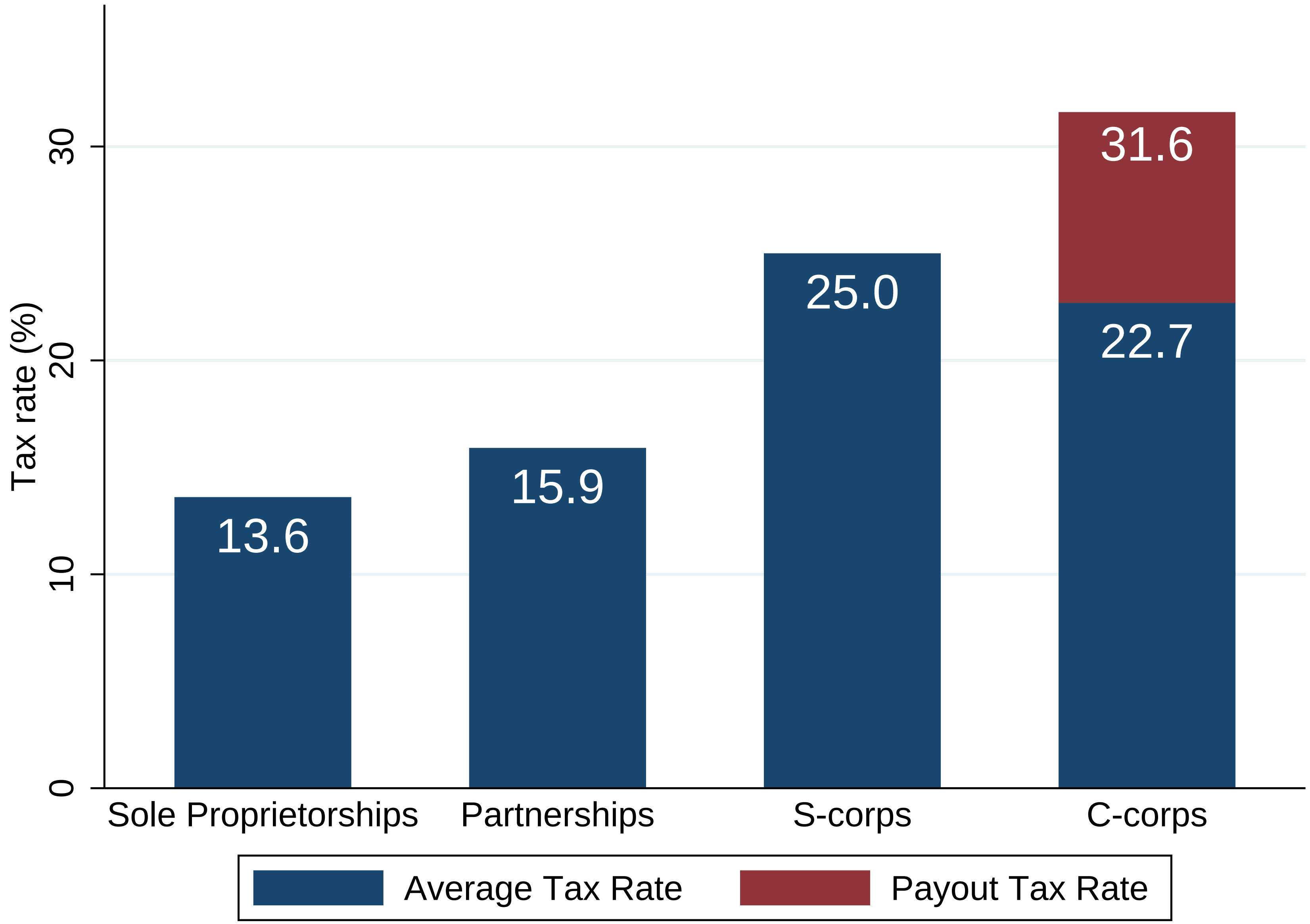
Source: Jason Furman.

The Rise of Pass-Through Businesses



Source: Cooper, McClelland, Pearce, Prisinzano, Sullivan, Yagan, Zidar, Zwick (2016).

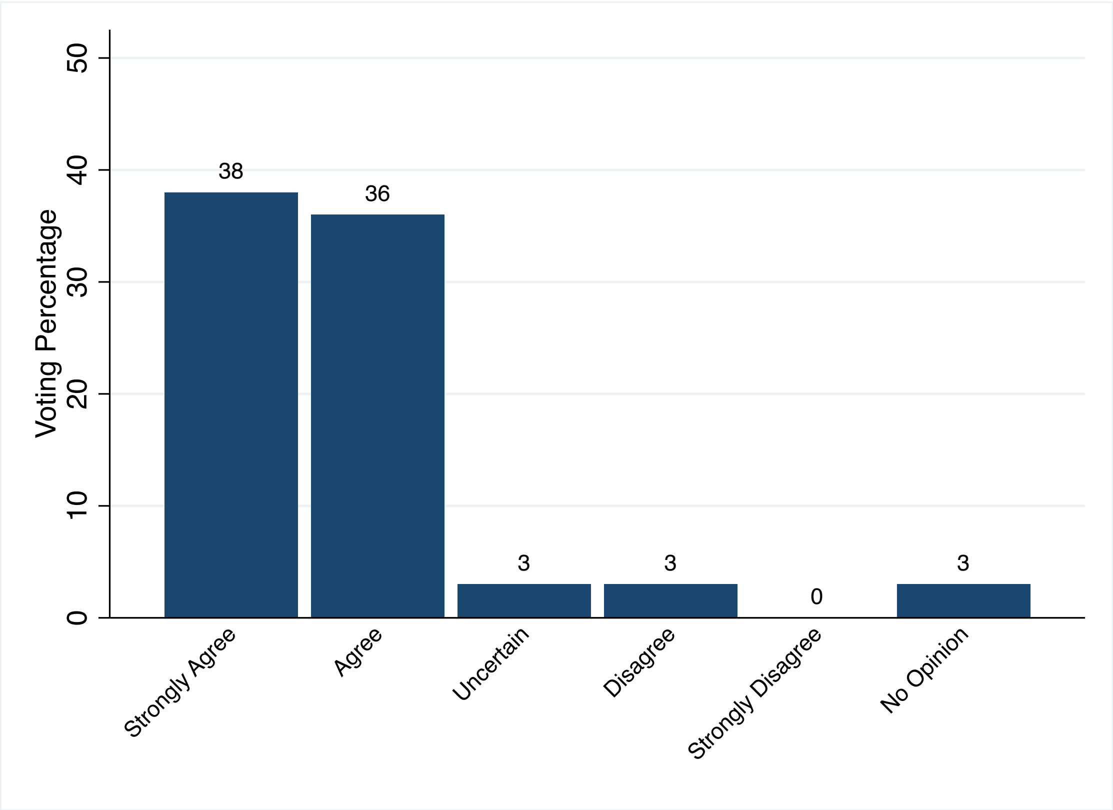
Effective Tax Rates across Corporate Form (2011)



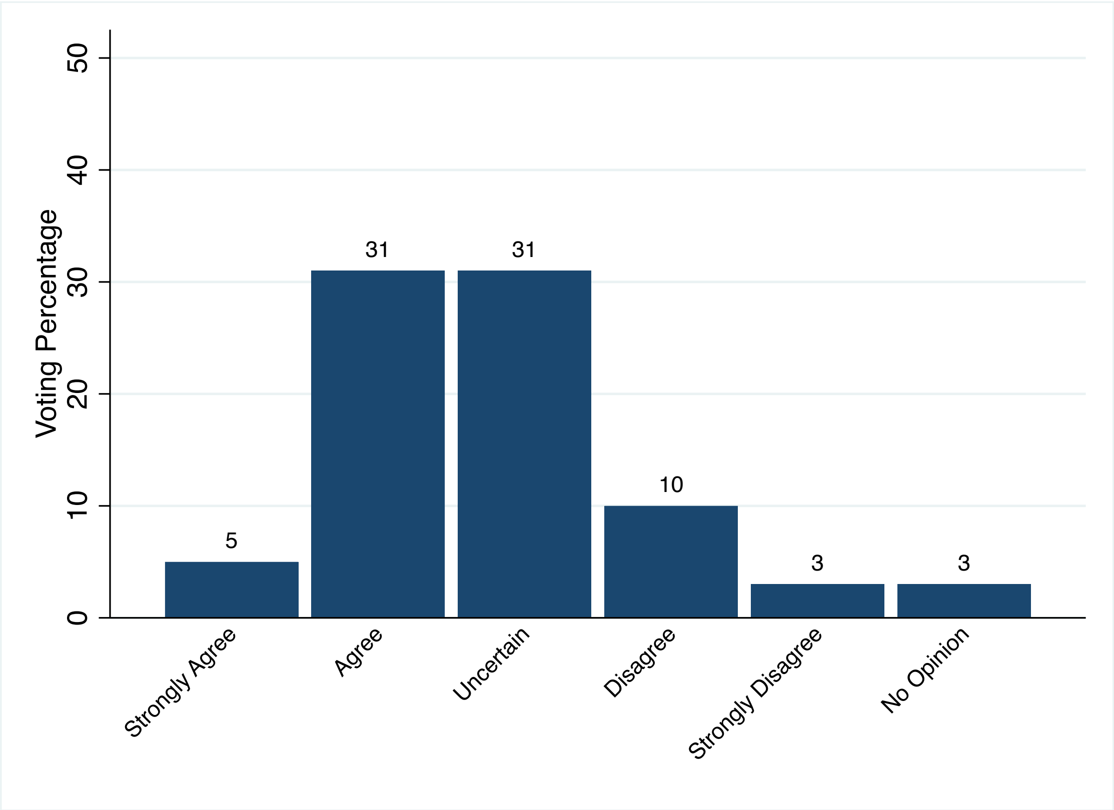
Source: Cooper, McClelland, Pearce, Prisinzano, Sullivan, Yagan, Zidar, Zwick (2016).

What Do the IGM Experts Say?

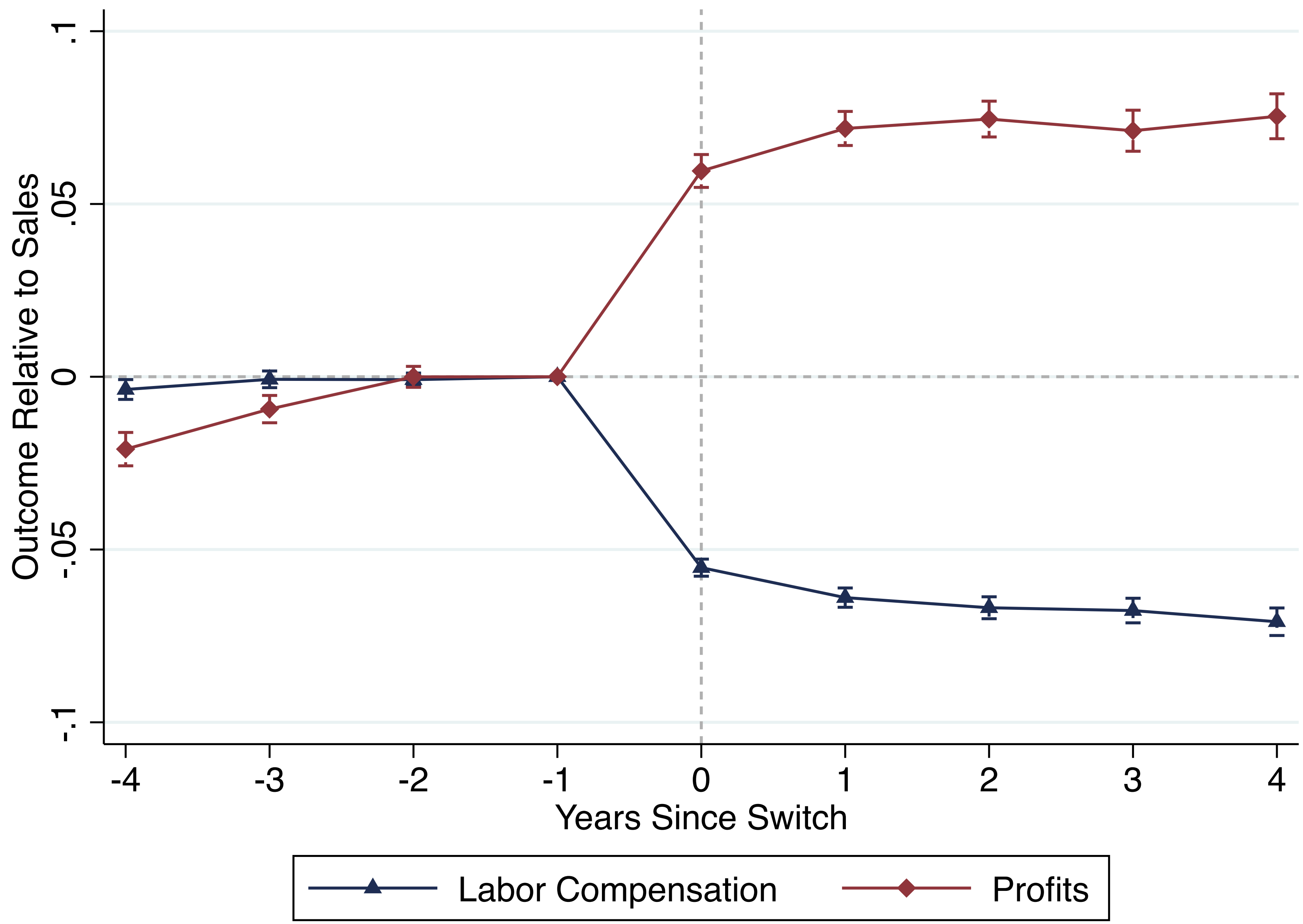
One drawback of **taxing capital income at a lower rate than labor income** is that it gives people **incentives to relabel income** that policy-makers find hard to categorize as "capital" rather than "labor." (10/2012)



Despite relabeling concerns, taxing capital income at a permanently lower rate than labor income would result in **higher average long-term prosperity**, relative to generating the same tax revenue by permanently taxing capital and labor income at equal rates instead. (10/2012)



Substitution of Labor Compensation and Profits around C→S Switch



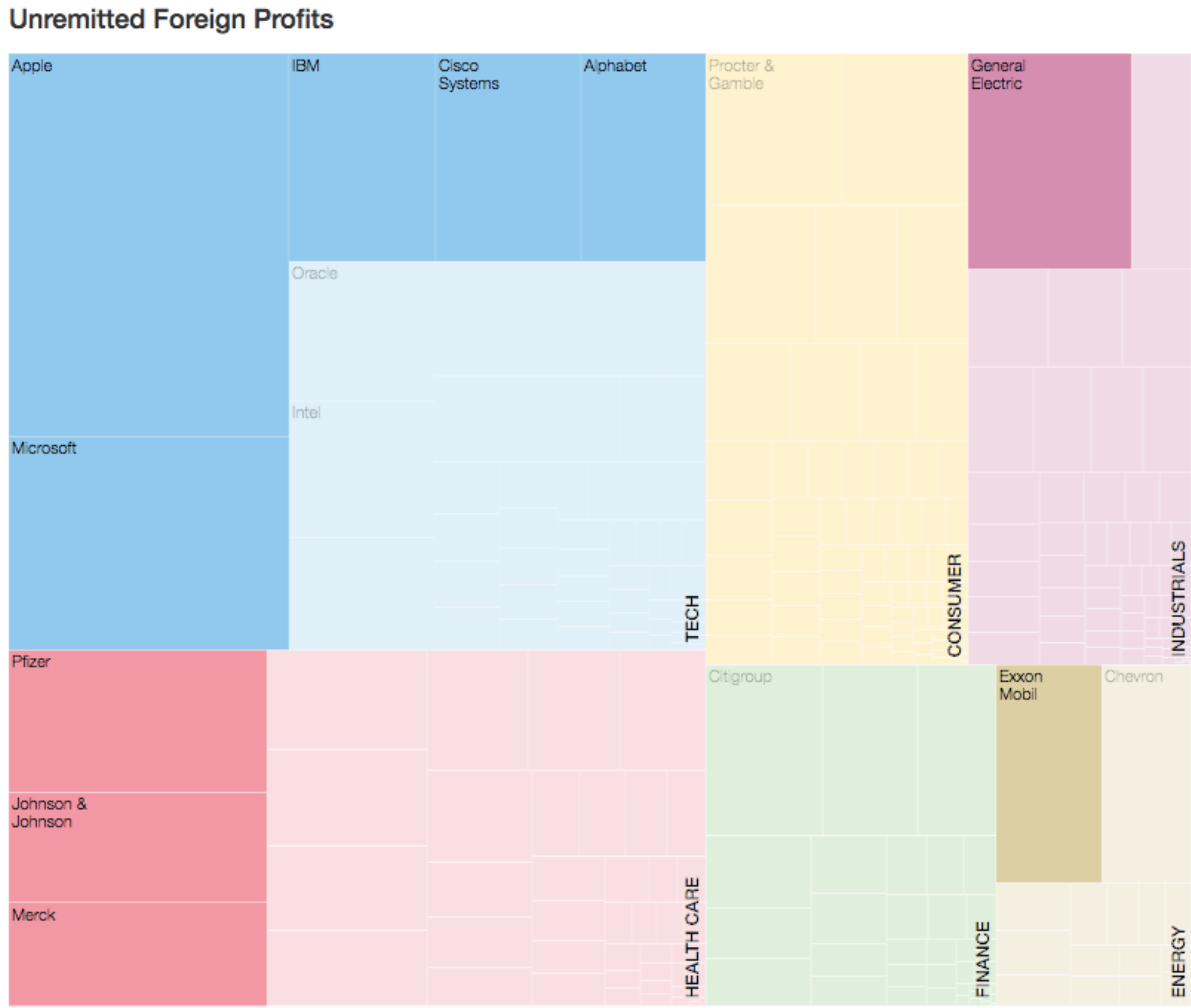
Source: Smith, Yagan, Zidar, Zwick (2017).

Bucket 2: Pass-through Provisions

1. **Deductions.** Same as pertinent old school provisions.
2. **Rate cut.**
   - Allows 20% deduction of qualified business income.
   - Reduces top rate from 37% to 29.6%.
3. **Phase-out of deduction.**
   - Specified service businesses—health, law, consulting, etc.
   - Businesses with low wages AND low capital. Cap on the deduction is greater of (a) 50% of W2 comp or (b) 25% of W2 comp and 2.5% of purchase of tangible assets.
   - Phase-out begins at $157,500 for individuals, $315,000 for joint filers

$2.8T in Accumulated Deferred Foreign Income (2017)

Just a handful of the biggest companies are responsible for a disproportionate share of the accumulated foreign profits.



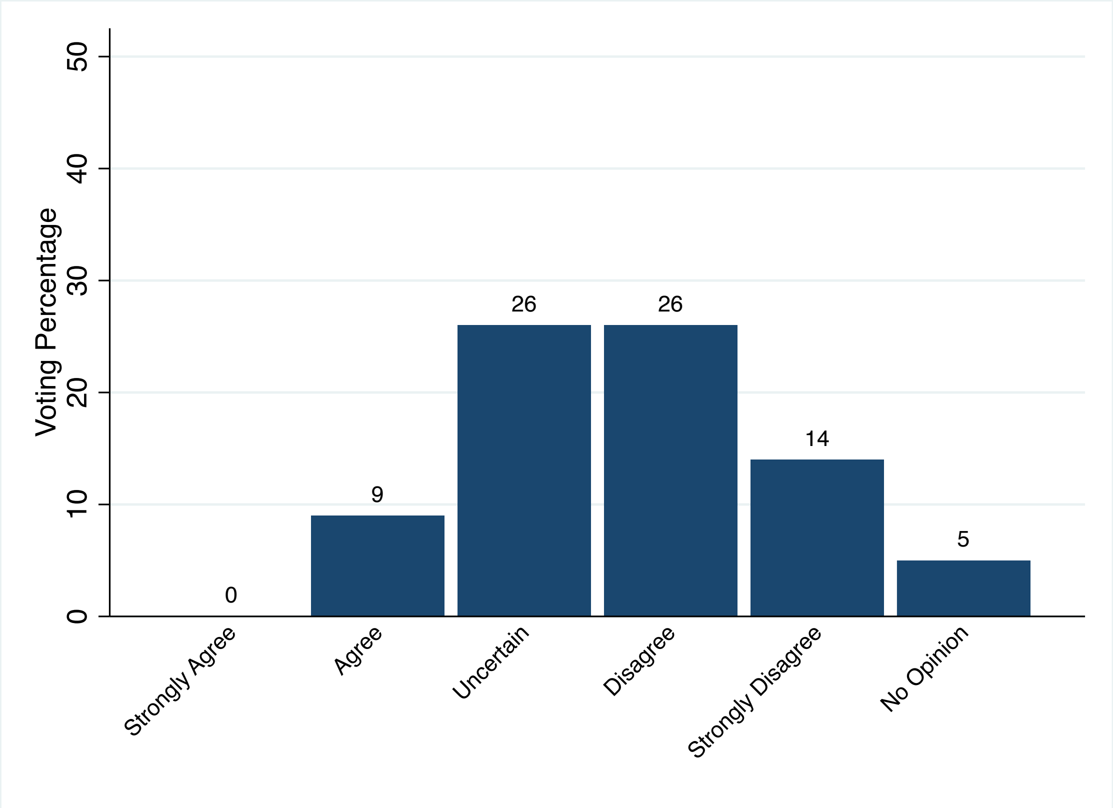
Source: WSJ.

Bucket 3: International Provisions

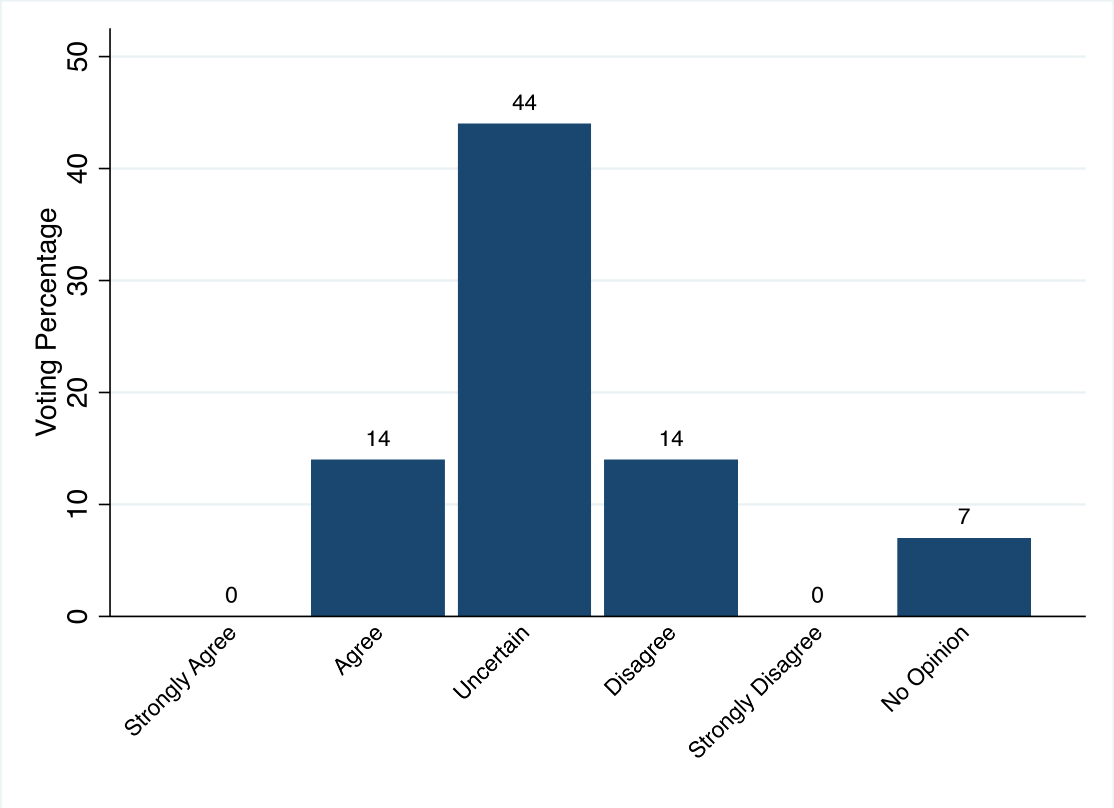
1. **Territorial?** Territorial with minimum tax on certain foreign income.
2. **Toll tax.** One-time tax on past earnings.
   - Deemed repatriation of deferred foreign income with 8% rate on illiquid and 15.5% rate on liquid assets, payable over 8 years.
   - Deferral system is repealed going forward.
3. **Profit shifting with intangibles.**
   - Immediate taxation of global intangible low-taxed income (at least 10.5%). A.k.a GILTI.
   - Deduction for domestic intangible income earned from unrelated foreign parties (implies a rate of at least 13%). A.k.a. FDII.
4. **Inbound profit shifting and anti-inversion measures.**
   - Min tax of 10% on income when payments to foreign related parties occur. A.k.a. BEAT.
   - Could hit cross-border or sub to branch bank payments, as no netting.
5. **Modifications to Subpart F.** Broader CFC rules. Foreign corporations may be subject to immediate inclusion of foreign-earned income.

What Do the IGM Experts Say?

Lowering the effective marginal tax rate on US corporations' repatriated profits **for a year** would boost US capital investment significantly. (11/2014)

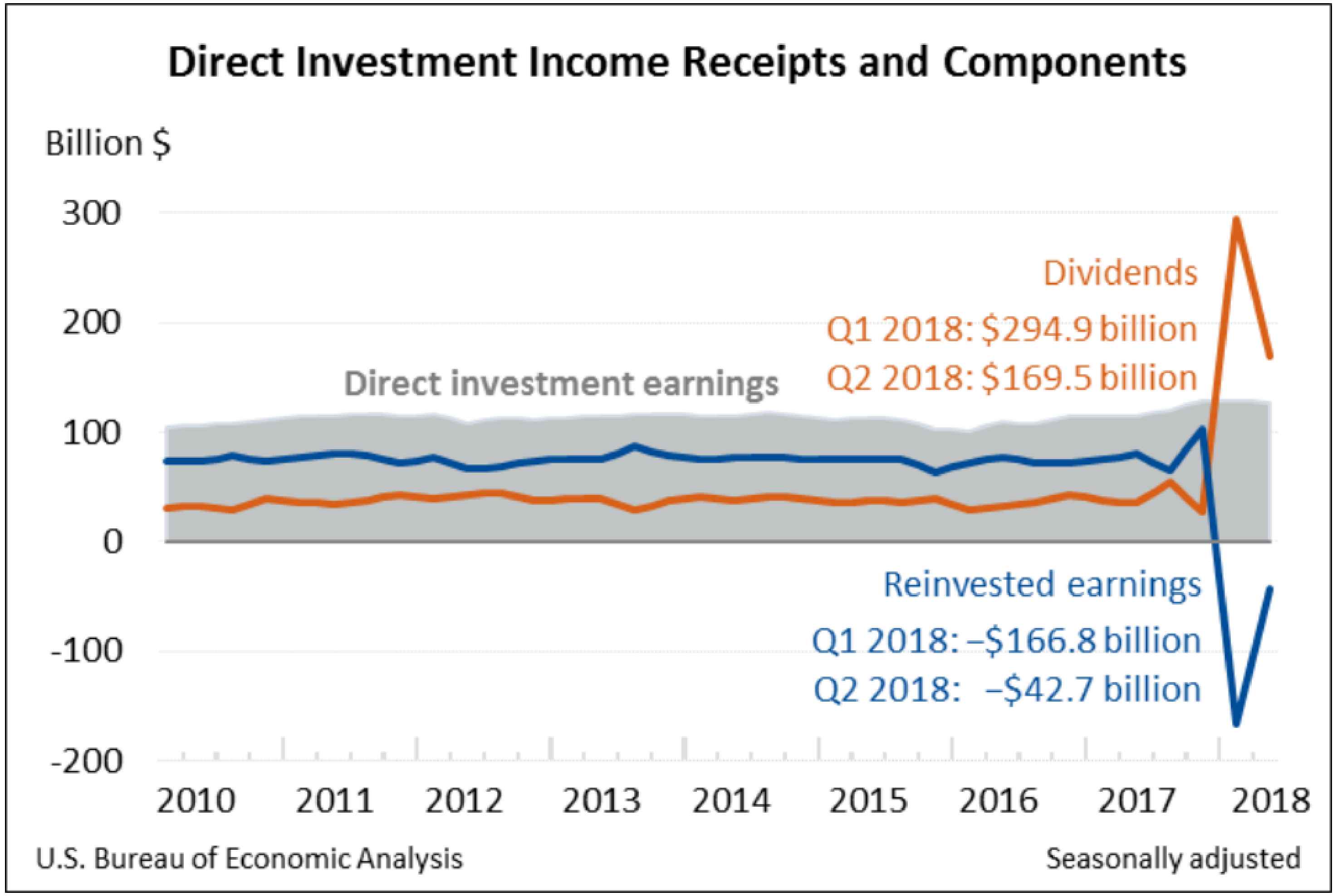


Permanently lowering the effective marginal tax rate on US corporations' repatriated profits, such as by moving to a territorial-based tax system, would boost US capital investment significantly. (11/2014)



What Do the Data Say So Far?

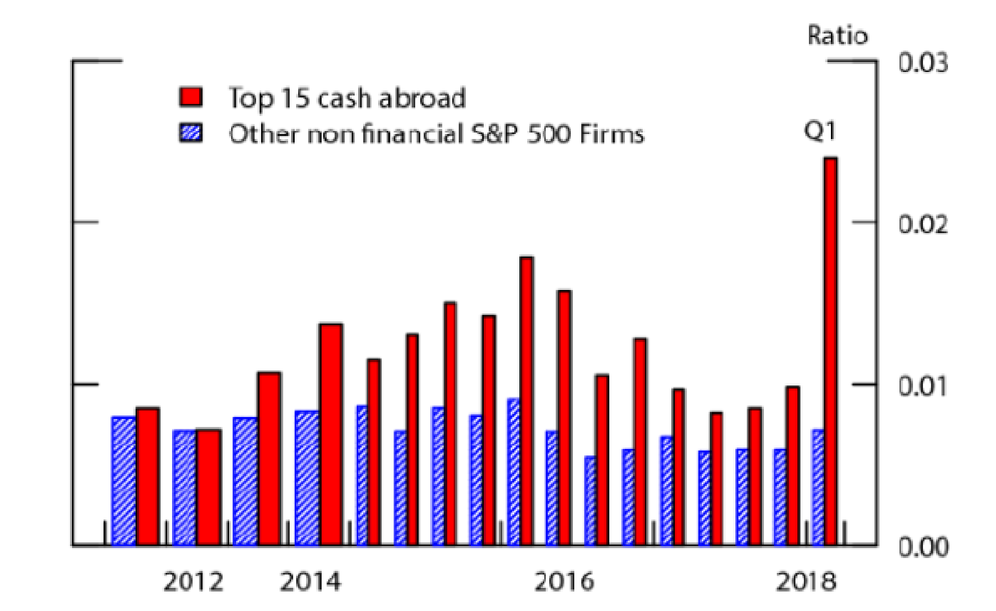
For more information, see "How does the 2017 Tax Cuts and Jobs Act affect BEA's business income statistics?" and "How are the international transactions accounts affected by an increase in direct investment dividend receipts?"



Source: BEA.

Our analysis investigates how U.S. nonfinancial firms with large holdings of cash abroad--specifically the top 15 holders--have deployed the repatriated funds, comparing their financing and investment behavior with that of all other nonfinancial S&P 500 firms.[6] The top 15 firms account for roughly 80 percent of total offshore cash holdings, and roughly 80 percent of their total cash (domestic plus foreign) is held abroad. Figure 2 shows that, following the passage of the TCJA in late December 2017, share buybacks spiked dramatically for the top 15 cash holders, with the ratio of buybacks to assets more than doubling in 2018:Q1.[7] In dollar terms, buybacks increased from $23 billion in 2017:Q4 to $55 billion in 2018:Q1. Among the top 15 cash holders, the largest holders accounted for the bulk of the share repurchases: In 2018:Q1, the top 5 cash holders accounted for 66 percent, and the top holder alone accounted for 41 percent. Firms can also pay out cash to shareholders through dividends; however, unlike buybacks, dividends were little changed for the top 15 cash holders relative to the same period last year. Similarly, academic studies suggest that most of the repatriated funds during the 2004 tax holiday were used to fund share buybacks (see Dharmapala, Foley, and Forbes (2011)).

Figure 2: Aggregate Ratio of Share Buybacks to Assets



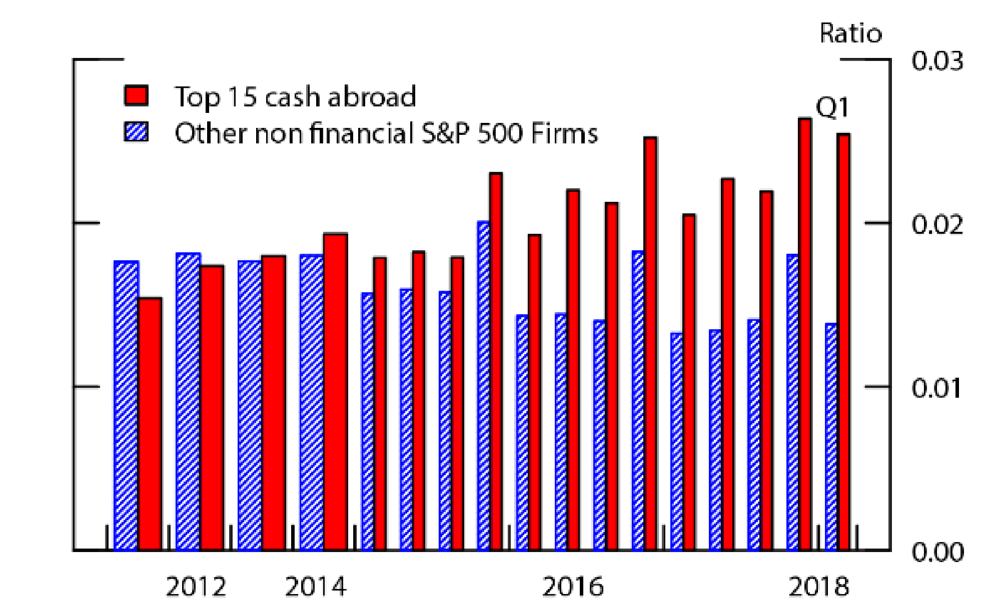
Note: For years before 2015, annual averages of quarterly values are shown.

Source: Compustat; Bloomberg.

Accessible version

In contrast, the evidence of an analogous increase in investment is arguably more limited at this early stage, or is at the very least open to interpretation (figure 3). On the one hand, unlike in the case of share buybacks, there is no obvious spike in investment among the top 15 cash holders in 2018:Q1 relative to the previous quarter. Indeed, it appears that the top 15 cash holders have already been on a slight upward trajectory relative to other firms for a few years. The upward trend is consistent with the notion that, because the top 15 cash holders are large firms, they are unlikely to have faced notable constraints or costs to accessing capital markets to fund investment before the TCJA. On the other hand, there is seasonal pattern in capital expenditures and R&D (with spikes in the fourth quarter); thus, comparing 2018:Q1 to the same period last year, it does appear that investment is higher for the top 15 cash holders (shown in red), though not for other firms (shown in blue). Of course, it is far too early to reach a definitive conclusion or to know whether the effects will persist, as any boost to investment due to the repatriation may take time to fully materialize.[8]

Figure 3: Aggregate Ratio of Cap-Ex Plus R&D to Assets



Note: For years before 2015, annual averages of quarterly values are shown. R&D is research and development.

Source: Compustat; Bloomberg.

Accessible version

Source: Federal Reserve Board note.

Republicans in Power

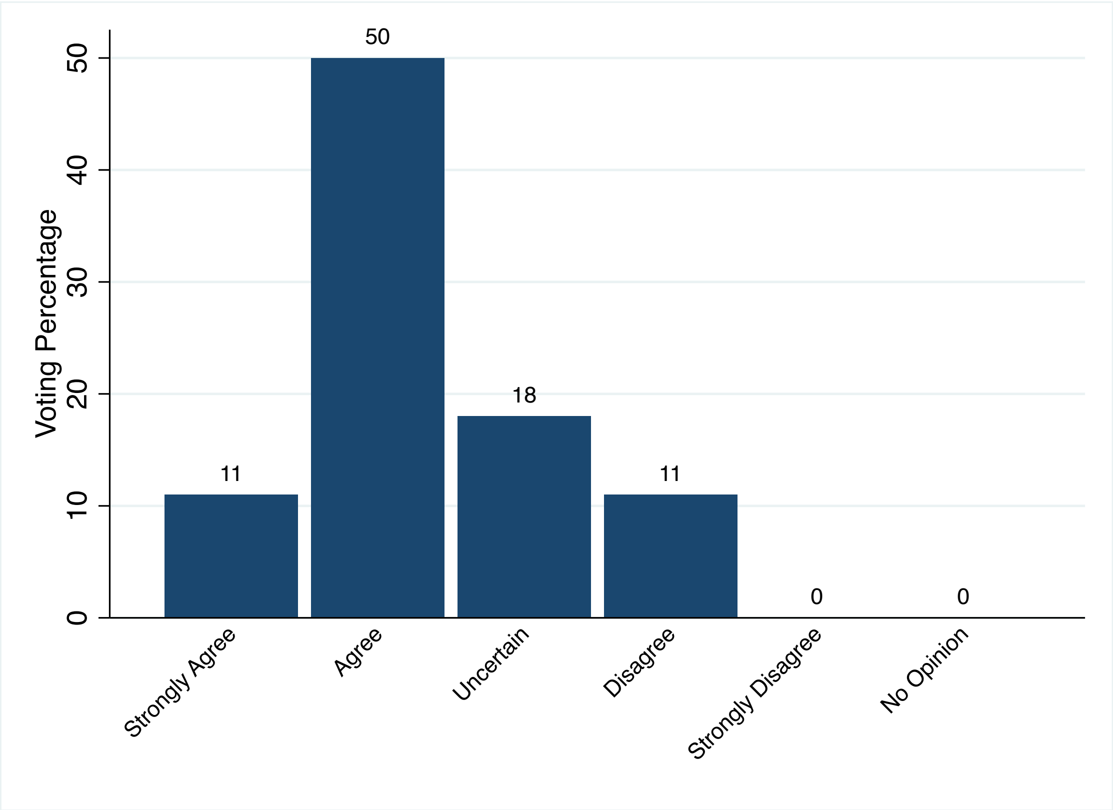
Source: Time.

Bucket 4: Individual Provisions

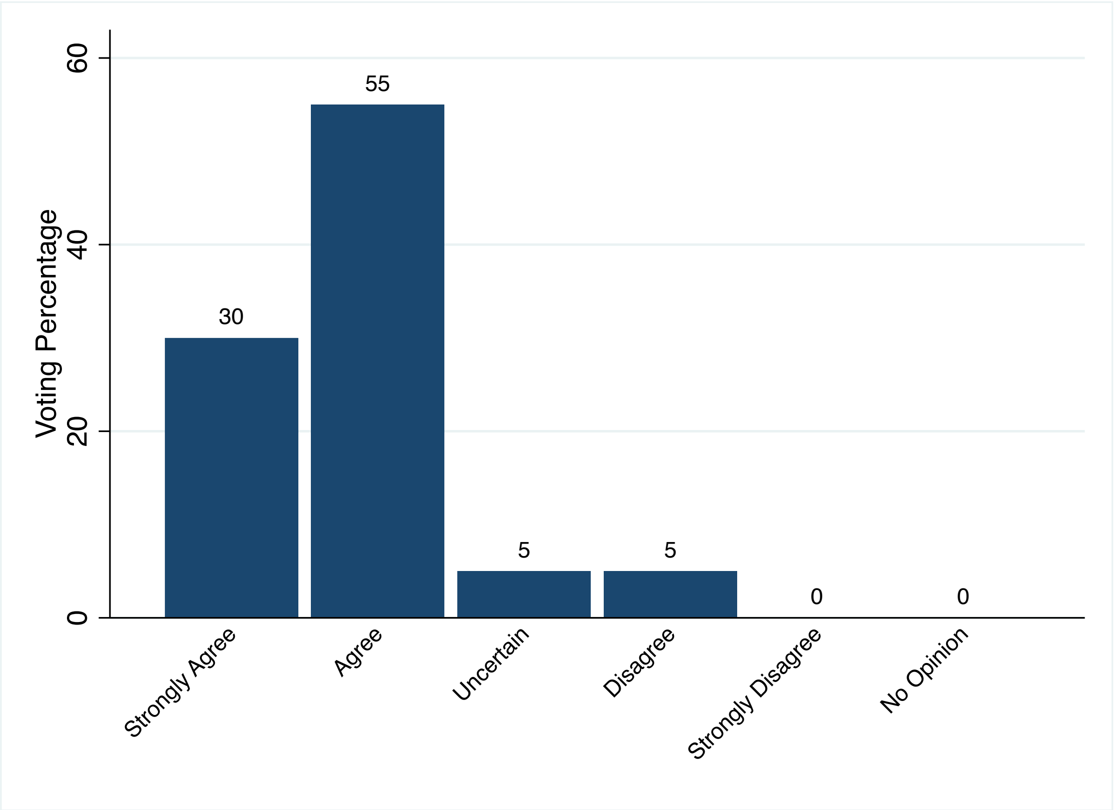
1. **Individual rates.** Top rate 37% down from 39.6%. Shift in brackets.
2. **Standard deduction.** Increased from $6.5K to $12K for single, from $13K to $24K for joint.
   - Repealed the personal exemption.
3. **Child tax credit.** Doubled to $2K per child and expanded phase-out.
4. **State and local tax (SALT) cap.** Deduction limited to $10K per year.
5. **Other Changes.**
   - Alternative Minimum Tax (AMT). Increased exemption so fewer people are subject to tax.
   - Reduced mortgage indebtnedness for deduction from $1M to $750K.
   - Home equity interest no longer qualifies.
   - ACA. Reduced tax for not having healthcare to zero.

What Do the IGM Experts Say?

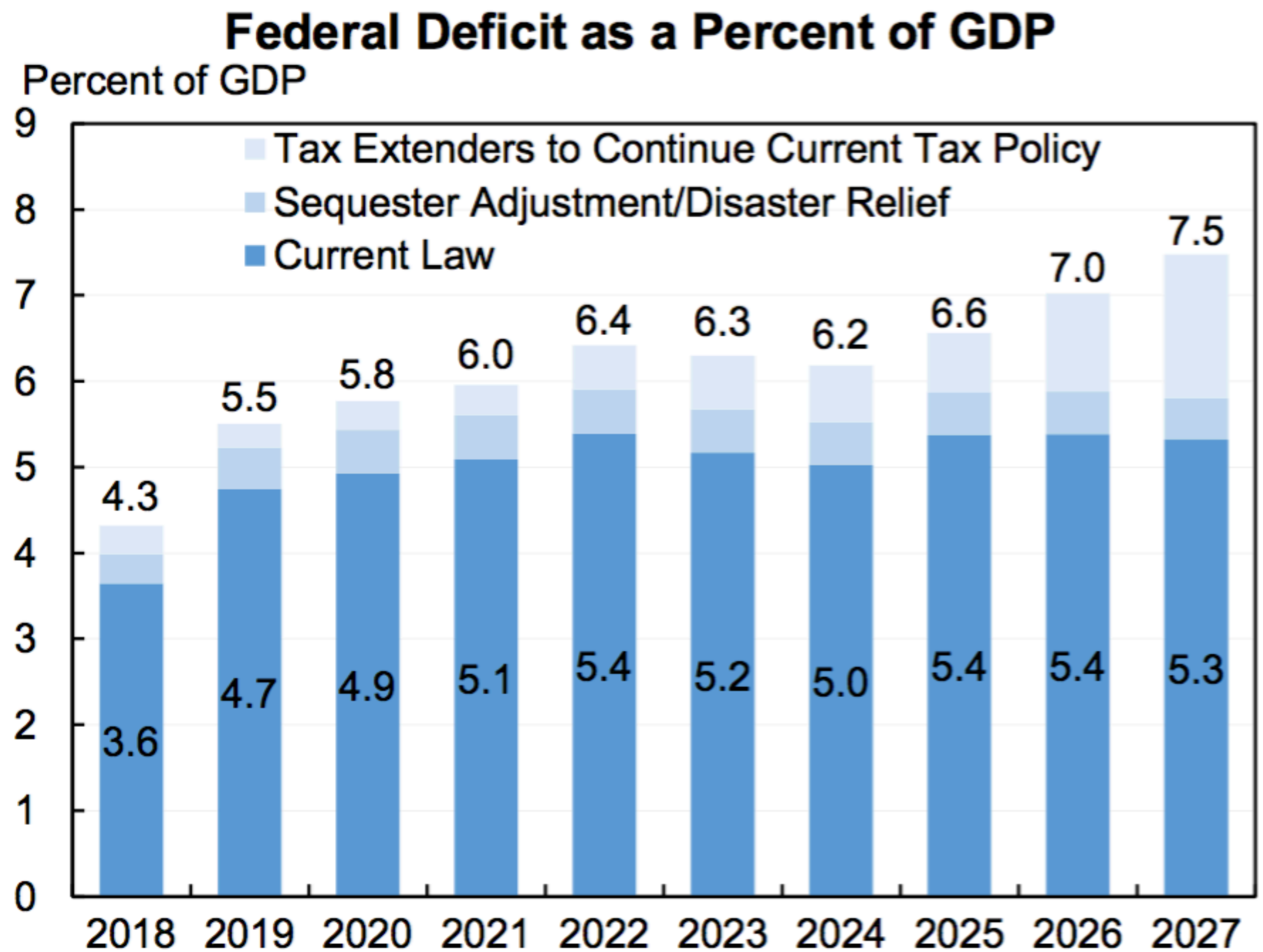
Reducing the income-tax deductibility of **charitable gifts** is a less distortionary way to raise new revenue than raising the same amount of revenue through a proportional increase in all marginal tax rates. (05/2013)



Eliminating tax deductions for **personal interest expenses (e.g., on mortgages)**, with reductions in personal tax rates that are both budget neutral and do not change the burden of taxes by income group the same, would lead to more efficient financing decisions by individuals. (11/2011)



Deficits expected to rise to 5%+ of GDP—and much more if major provisions are extended



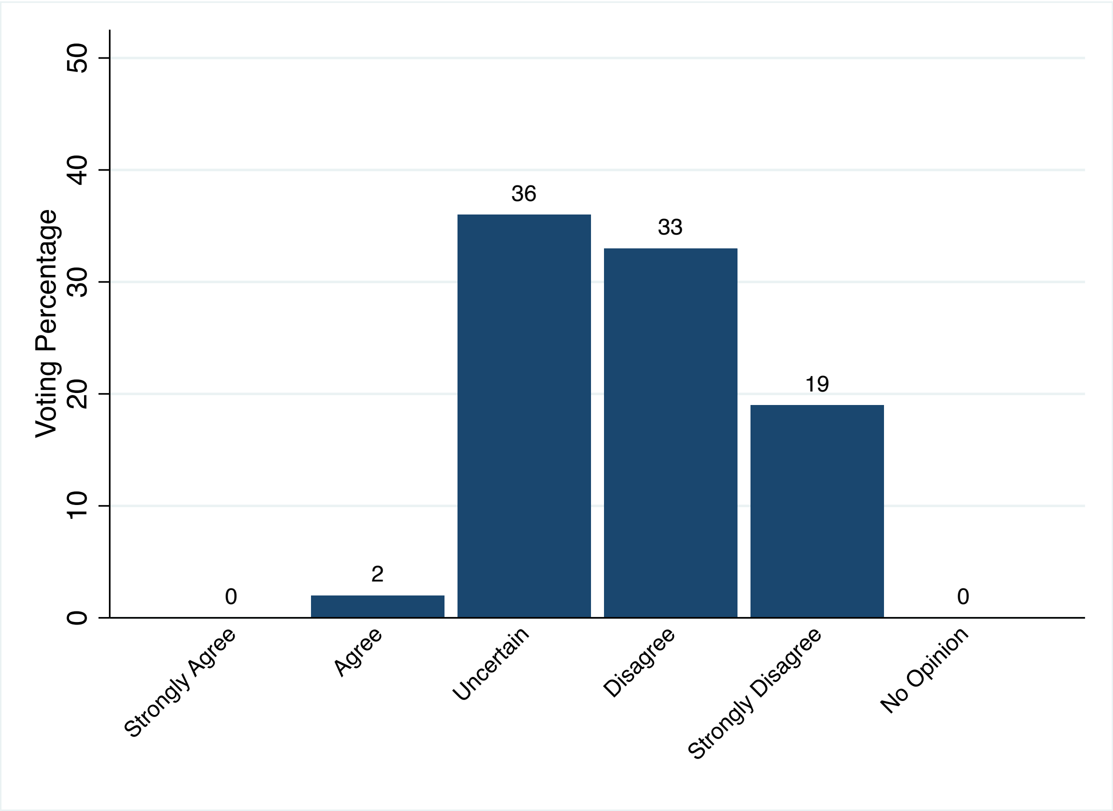
Source: Committee for a Responsible Federal Budget; Congressional Budget Office; author's calculations.

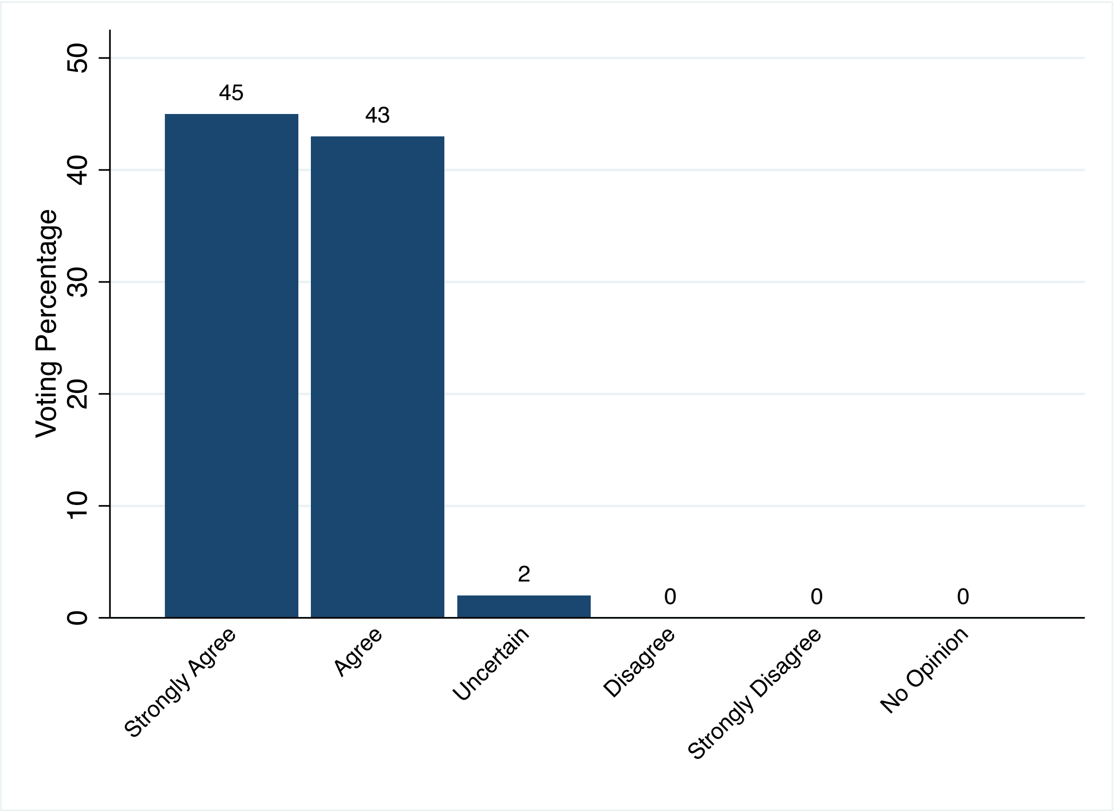
Source: Jason Furman.

What Do the IGM Experts Say?

If the US enacts a tax bill similar to those currently moving through the House and Senate—and assuming no other changes in tax or spending policy—**US GDP will be substantially higher a decade from now** than under the status quo. (11/2017)

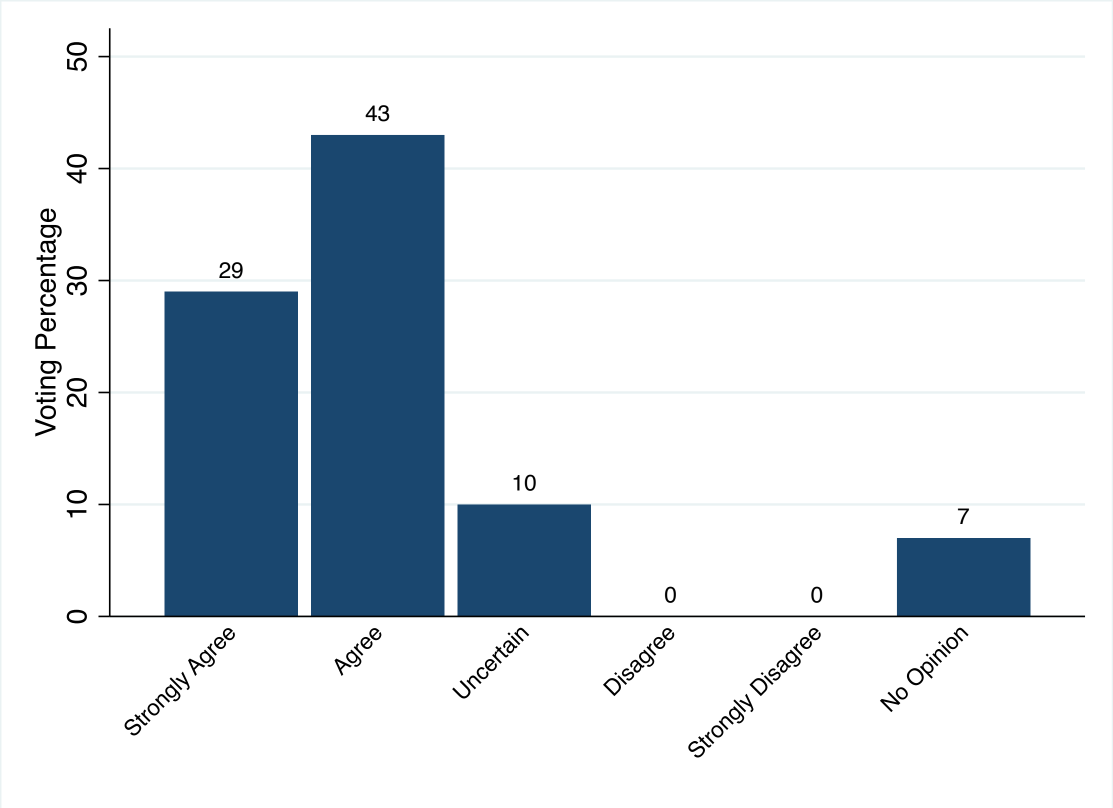
If the US enacts a tax bill similar to those currently moving through the House and Senate—and assuming no other changes in tax or spending policy—the **US debt-to-GDP ratio will be substantially higher a decade from now** than under the status quo. (11/2017)



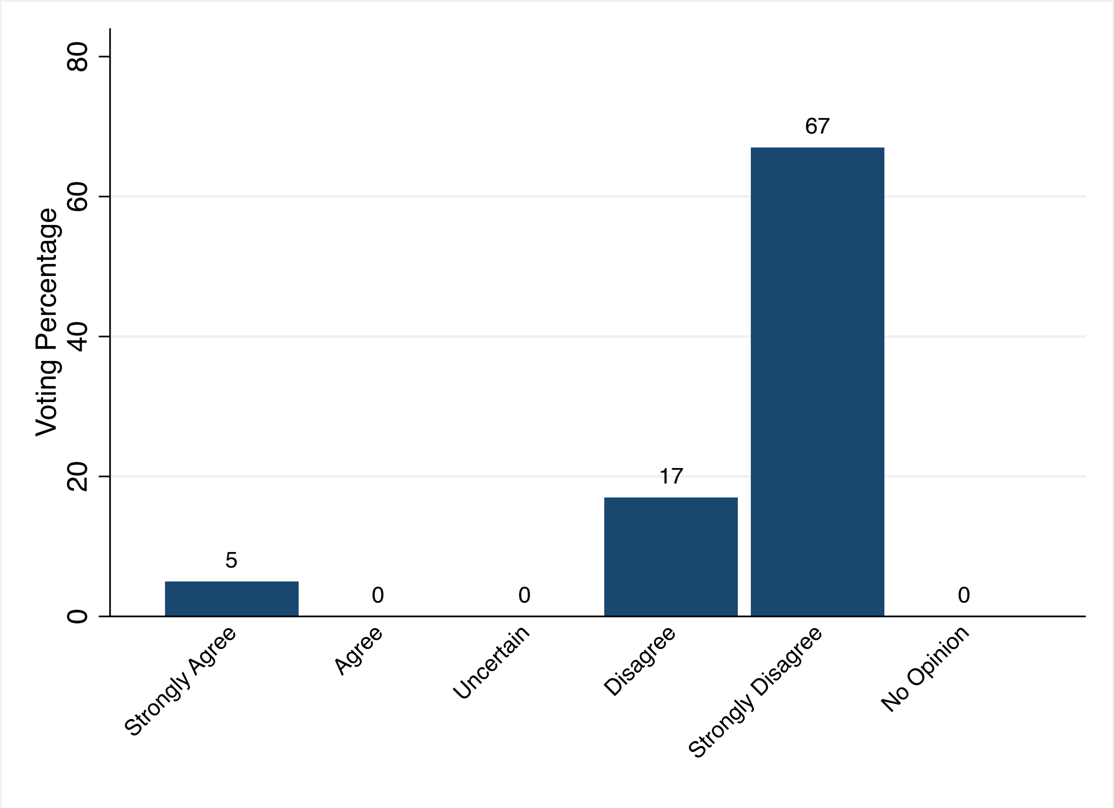


What Do the IGM Experts Say?

Since 1980, whenever substantial growth effects have been required to make a tax reform plan revenue neutral, **the actual outcome has invariably been a fall in tax revenue** as a share of GDP. (5/2017)

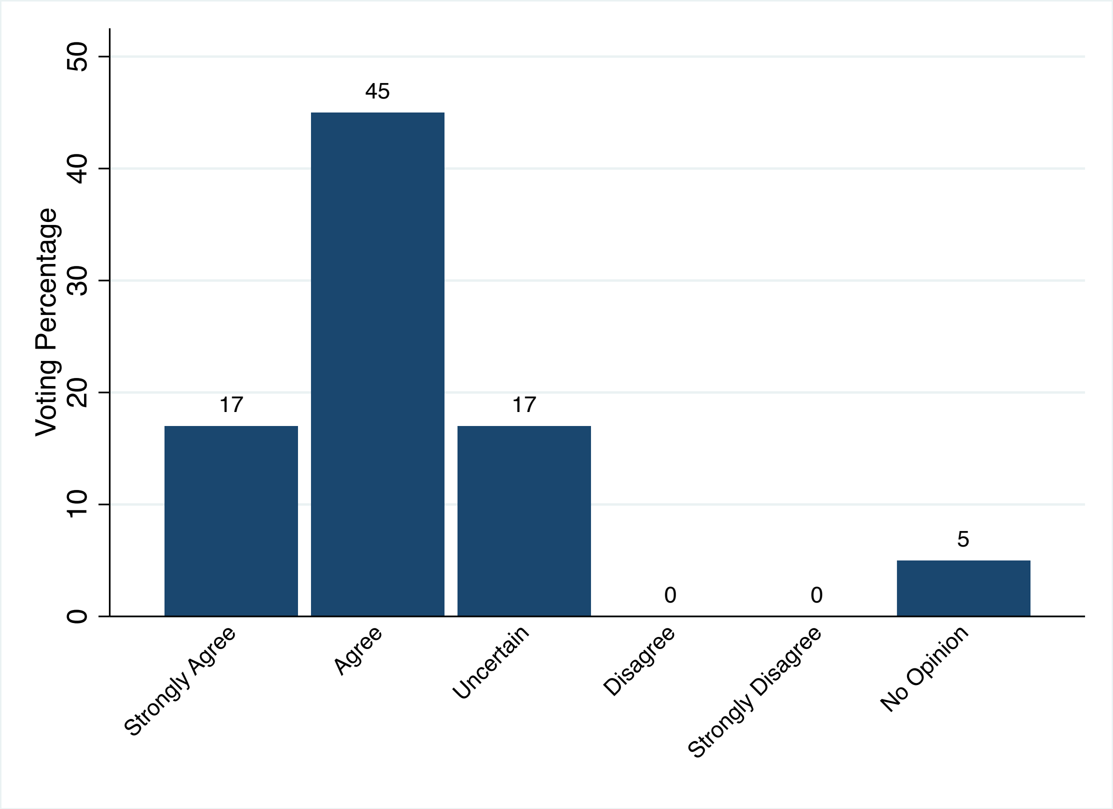


The tax reform plan proposed by President Trump this week would likely **pay for itself through higher economic growth**. (5/2017)

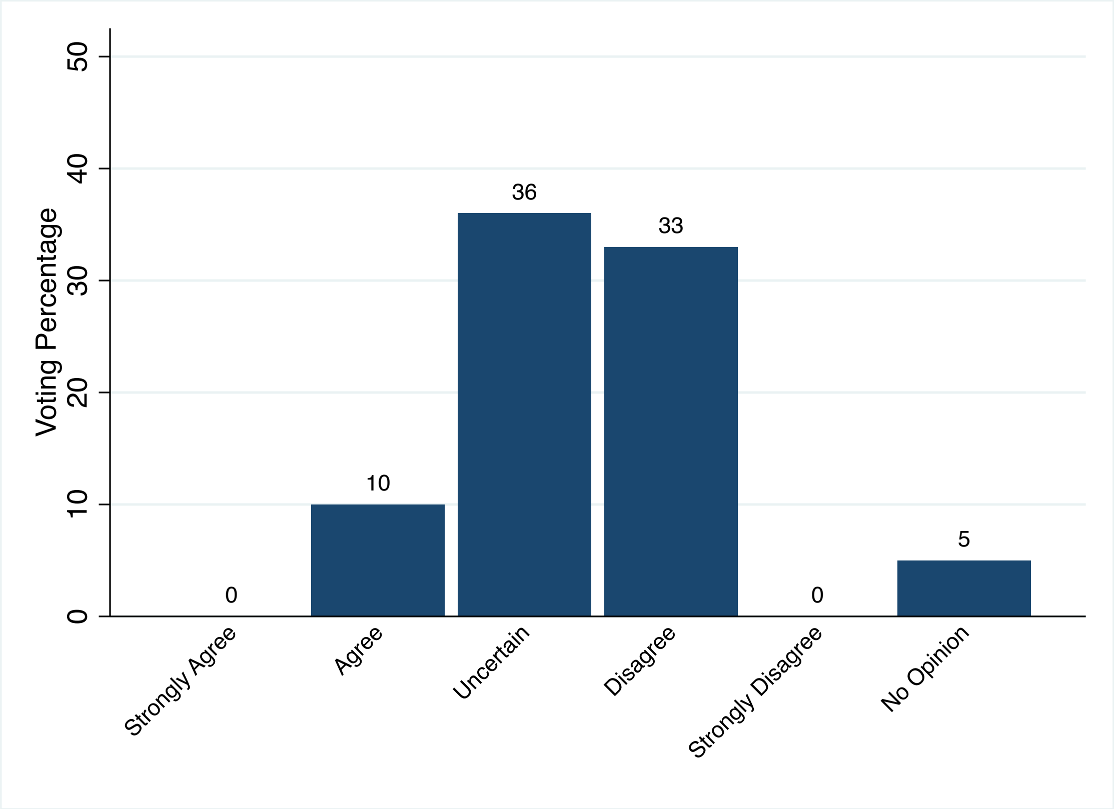


What Do the IGM Experts Say?

US share prices have risen since Donald Trump's election victory at least partly because the policies he seems poised to implement are likely to increase US **after-tax corporate profits**. (01/2017)

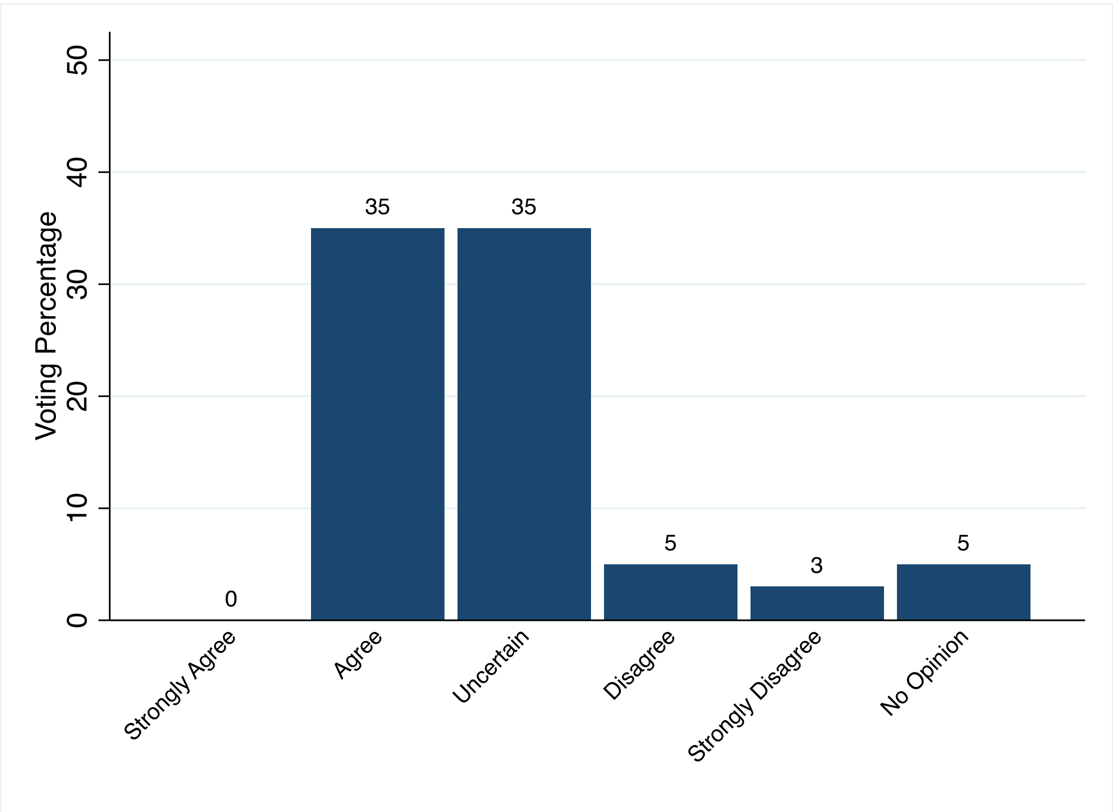


US share prices have risen US share prices have risen since Donald Trump's election victory at least partly because the policies he seems poised to implement are likely to **increase US real GDP growth**. (01/2017)

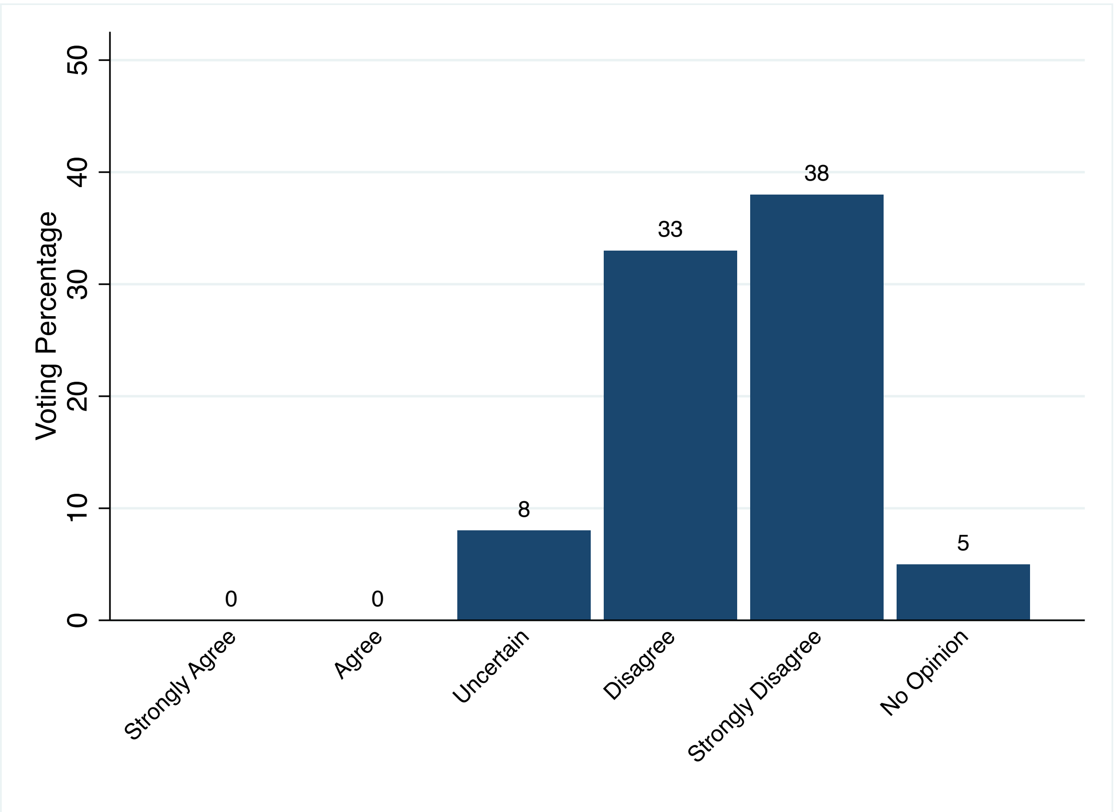


What Do the IGM Experts Say?

A cut in federal income tax rates in the US right now would lead to **higher GDP within five years** than without the tax cut. (06/2012)



A cut in federal income tax rates in the US right now **would raise taxable income enough** so that the annual total tax revenue would be higher within five years than without the tax cut. (06/2012)



What Has the Congressional Budget Office Found?

Total Receipts

Billions of Dollars

Major Source	2016	2017	2018	Percentage Change, 2017 to 2018
Individual Income Taxes	1,546	1,587	1,684	6.1
Payroll Taxes	1,115	1,162	1,171	0.8
Corporate Income Taxes	300	297	205	–31.1
Other Receipts	307	269	270	0.4
	3,268	**3,315**	**3,329**	**0.4**
Percentage of GDP	17.6	17.2	16.4	n.a.

Sources: Congressional Budget Office; Office of Management and Budget; Department of the Treasury.

n.a. = not applicable.

What Did the Joint Committee on Taxation Say?

JOINT COMMITTEE ON TAXATION
December 18, 2017
JCX-67-17

ESTIMATED BUDGET EFFECTS OF THE CONFERENCE AGREEMENT FOR H.R. 1,
THE "TAX CUTS AND JOBS ACT"

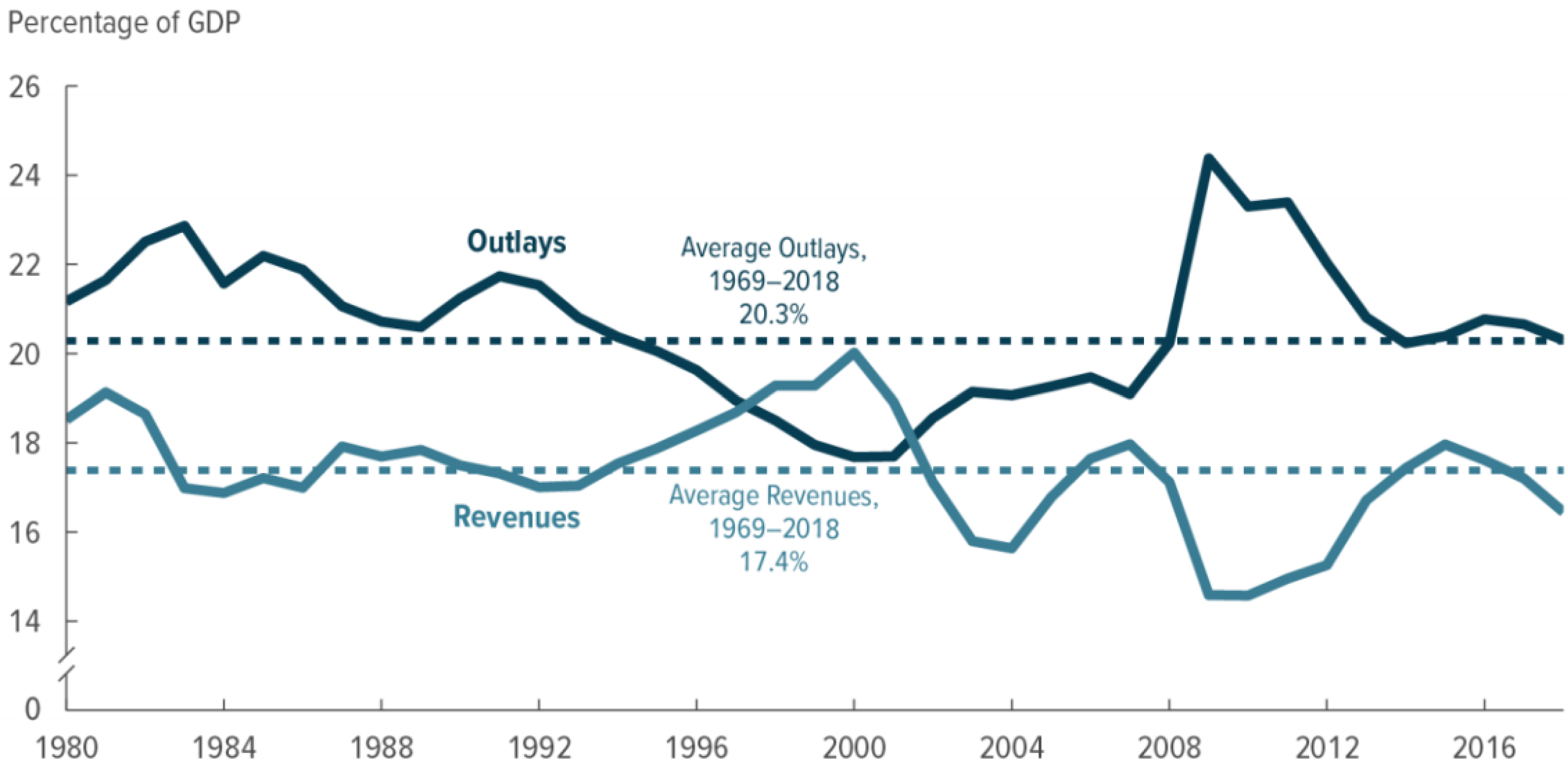
Fiscal Years 2018 - 2027

[Billions of Dollars]

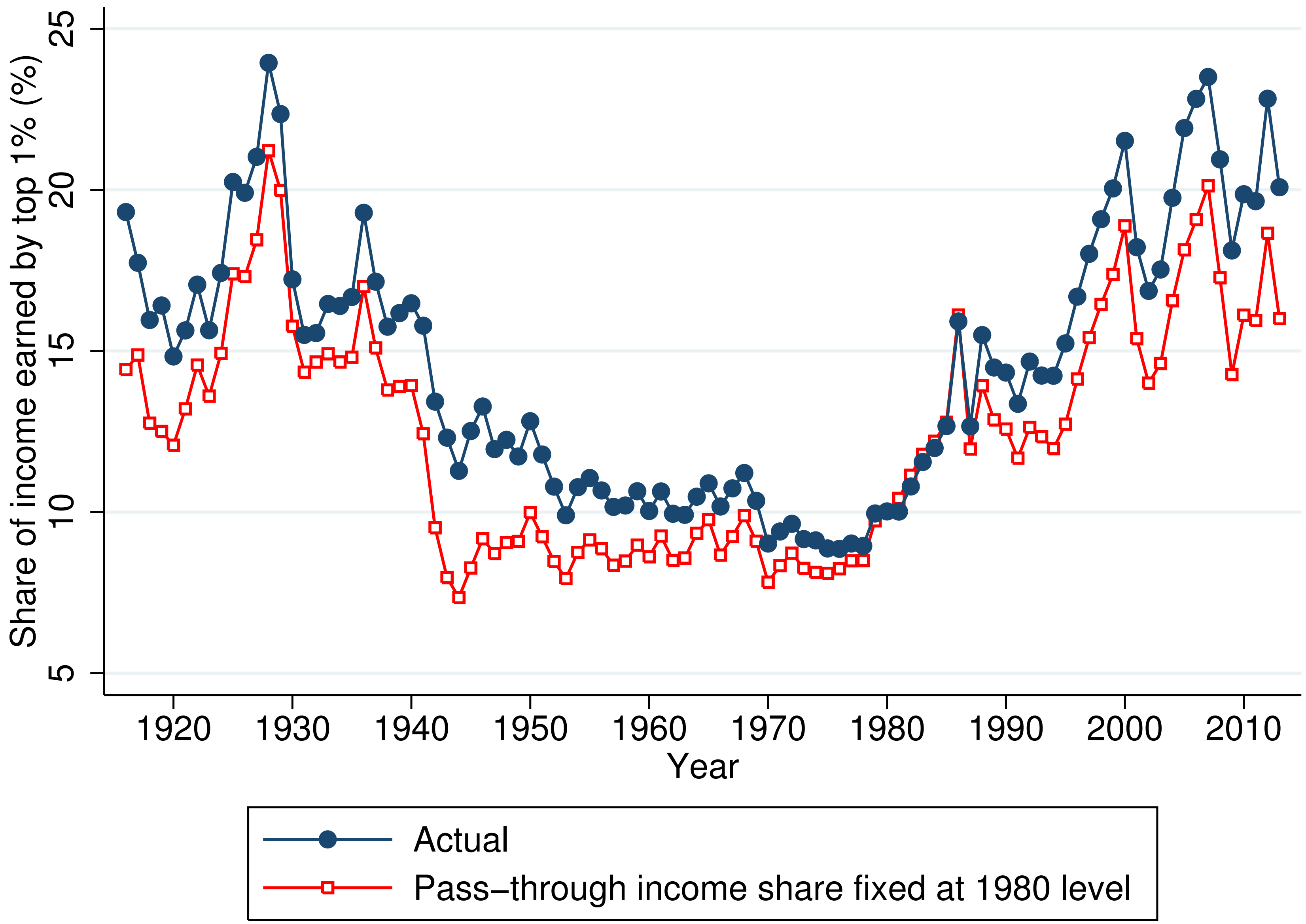
Provision	Effective	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2018-22	2018-27
Total of International Tax Reform ...		**68.9**	**42.6**	**26.0**	**28.0**	**22.9**	**22.5**	**36.7**	**48.7**	**29.1**	**-0.8**	**188.2**	**324.4**
Total of Business Tax Reform...		**-129.3**	**-133.8**	**-112.9**	**-92.5**	**-50.4**	**-16.4**	**-15.9**	**-24.1**	**-28.4**	**-49.4**	**-518.2**	**-653.8**
3. Treatment of deferred foreign income upon transition to participation exemption system of taxation and mandatory inclusion at two-tier rate (8-percent rate for illiquid assets, 15.5-percent rate for liquid assets)..........	[23]	78.6	49.6	16.5	15.6	15.7	27.2	47.5	64.4	33.0	-9.4	176.0	338.8

- Expected net revenue loss in 2018 of $60B on corporate side
- Actual loss looking closer to $90B (higher if economy outperformed)

What Has the Congressional Budget Office Found?



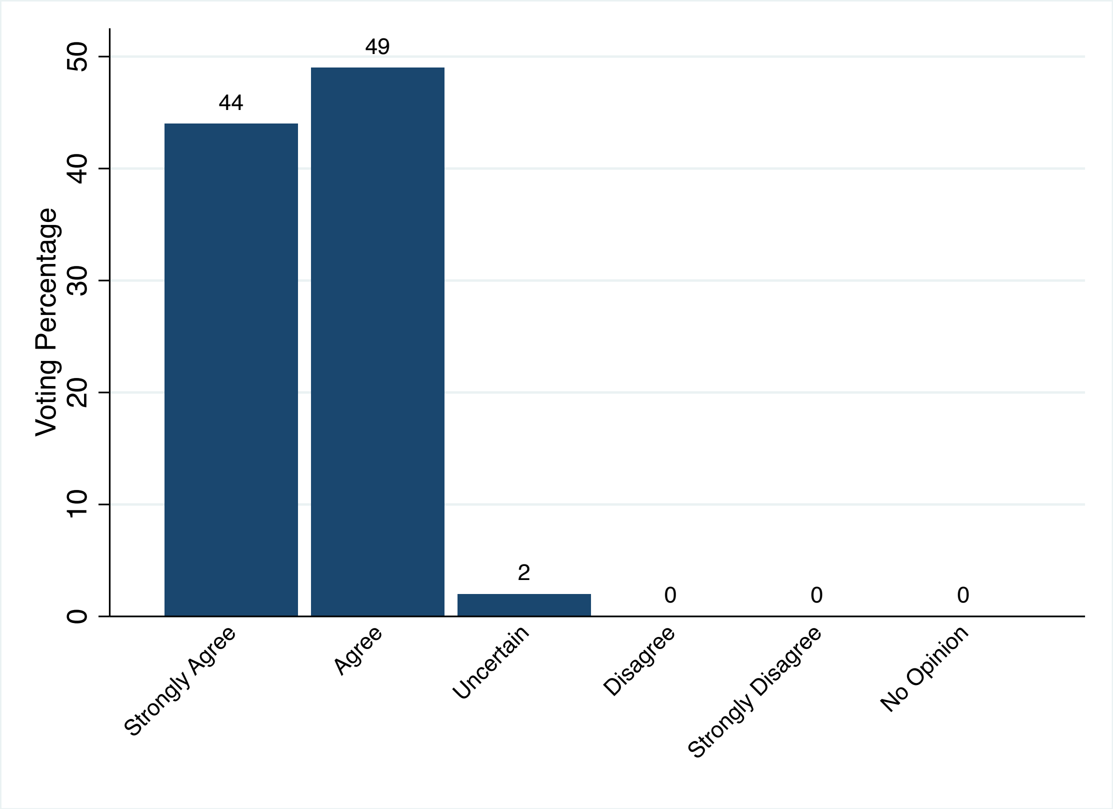
70% of Pass-Through Dollars Earned by Top 1%



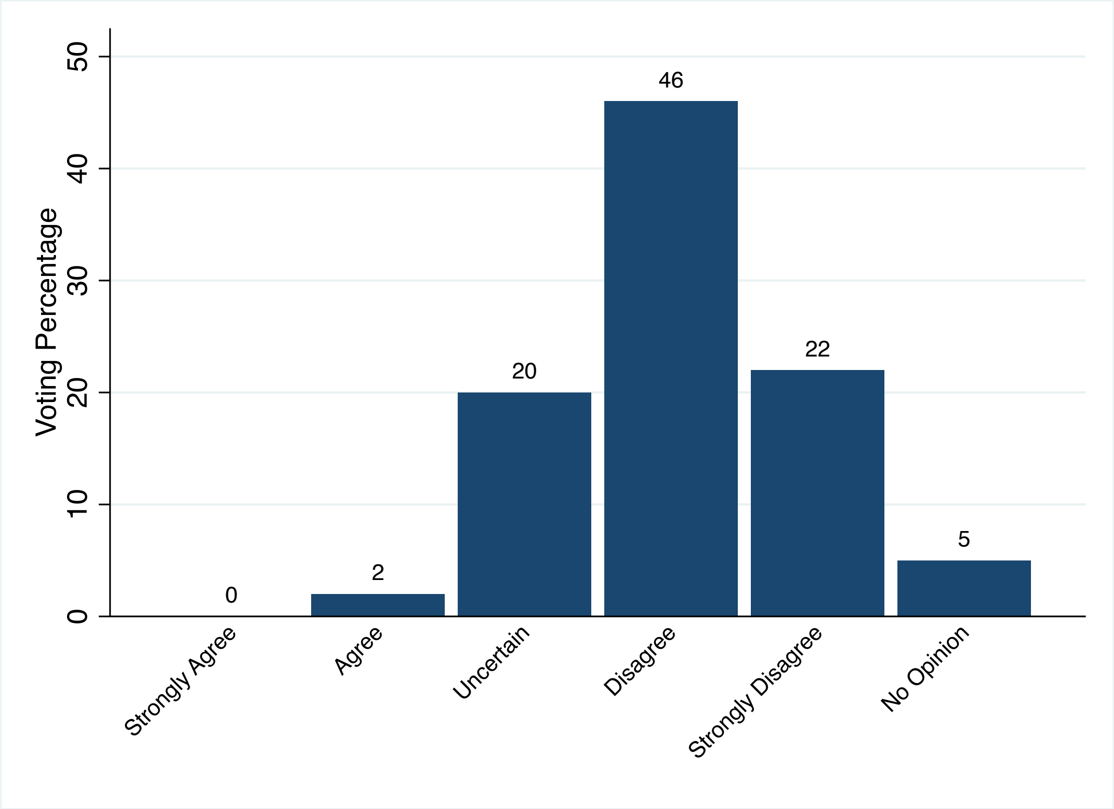
Source: Cooper, McClelland, Pearce, Prisinzano, Sullivan, Yagan, Zidar, Zwick (2016).

What Do the IGM Experts Say?

All else equal, permanently raising the federal marginal tax rate on ordinary income by 1 percentage point **for those in the top** (i.e., currently 35%) tax bracket **would increase federal tax revenue** over the next 10 years. (10/2011)

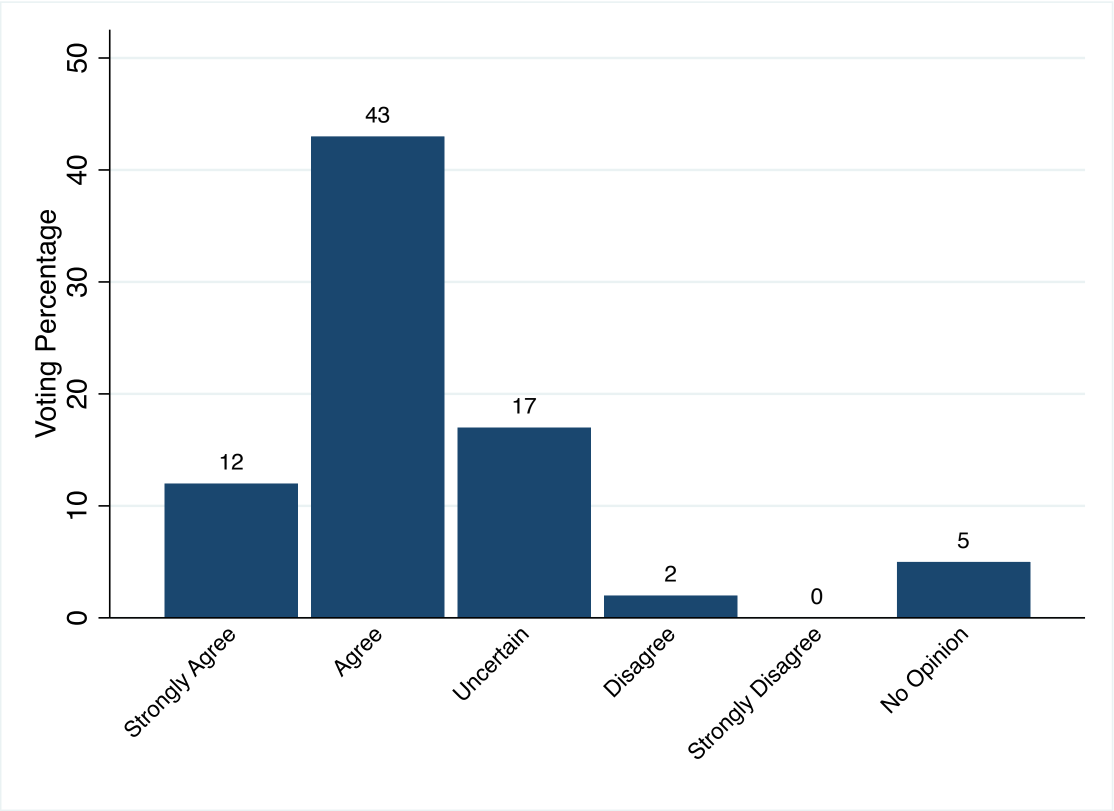


The cumulative budget shortfalls in the US over the next 10 years can be **reduced by half** (or more) purely by increasing the federal marginal tax rate on ordinary income **for those in the top tax bracket**. (10/2011)

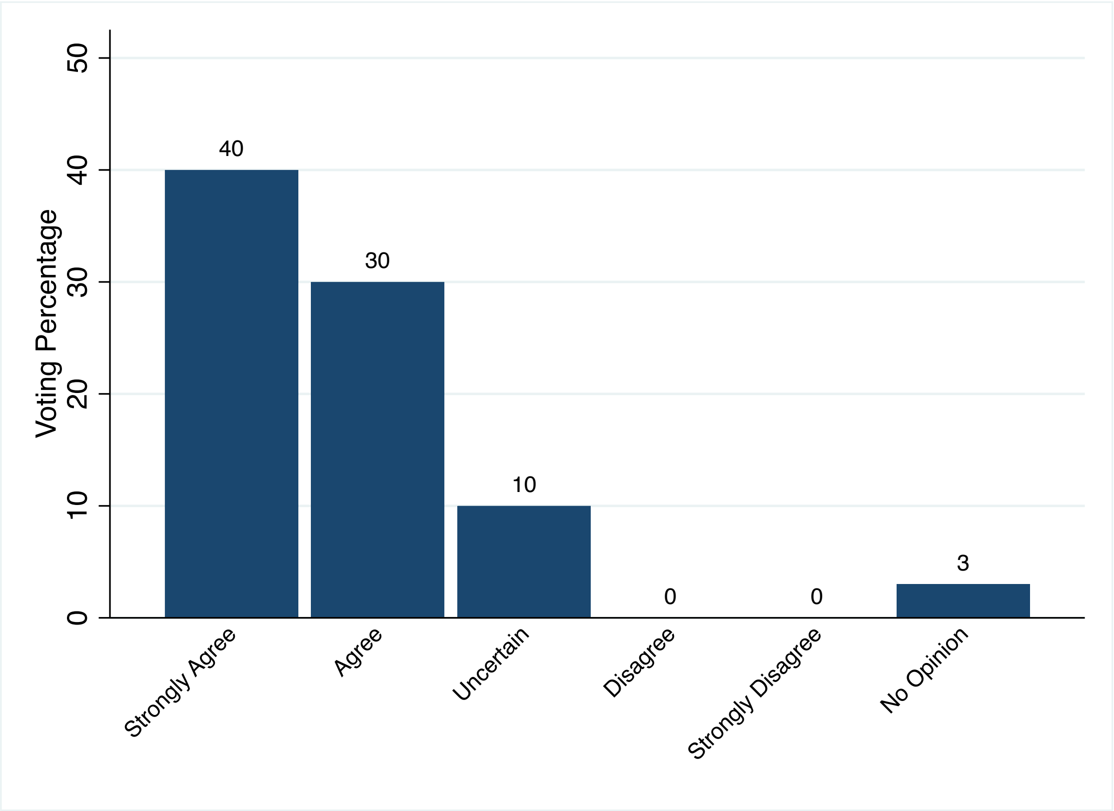


What Do the IGM Experts Say?

Long run fiscal sustainability in the US will require some combination of cuts in currently promised **Medicare, Medicaid and Social Security benefits** and/or **tax increases** that include higher taxes on households with incomes **below $250,000**. (10/2016)



Same question. (07/2012)



What Has the Congressional Budget Office Found?

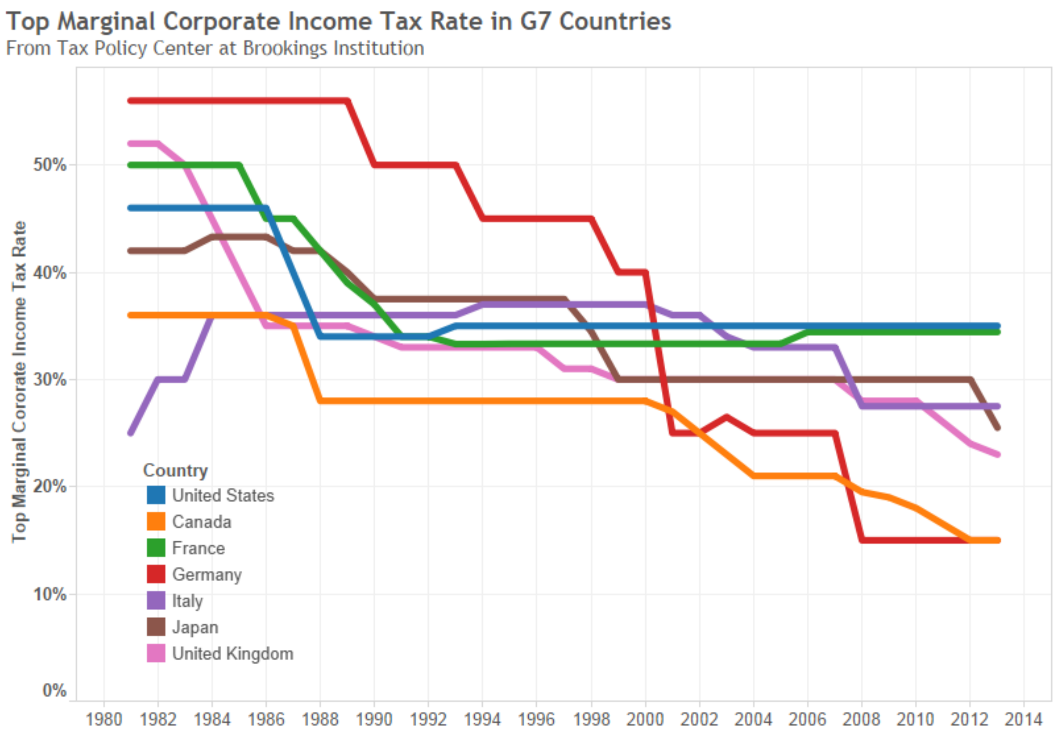
Total Outlays

Billions of Dollars

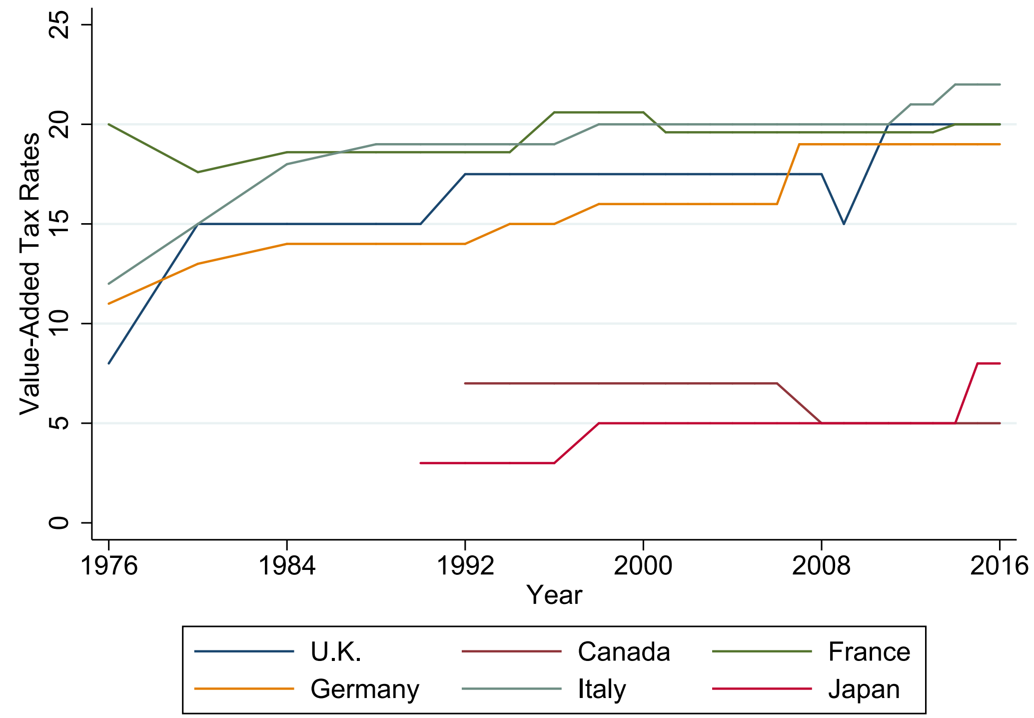
Major Category	2016	2017	2018	Percentage Change, 2017 to 2018 Actual	Percentage Change, 2017 to 2018 Adjusted [a]
Social Security Benefits	905	934	977	4.6	4.6
Medicare [b]	592	595	585	–1.6	2.7
Medicaid	368	375	389	3.9	3.9
Subtotal	**1,865**	**1,903**	**1,951**	2.5	3.9
DoD—Military [c]	565	569	601	5.6	6.6
Net Interest on the Public Debt	284	310	371	19.8	19.8
Other	1,138	1,199	1,185	–1.2	0.0
Total	**3,853**	**3,981**	**4,108**	3.2	4.3
Percentage of GDP	20.8	20.7	20.3	n.a.	n.a.

Fall in Corporate Tax → Rise in Value-Added Tax

Corporate Rates



Value-Added Tax Rates

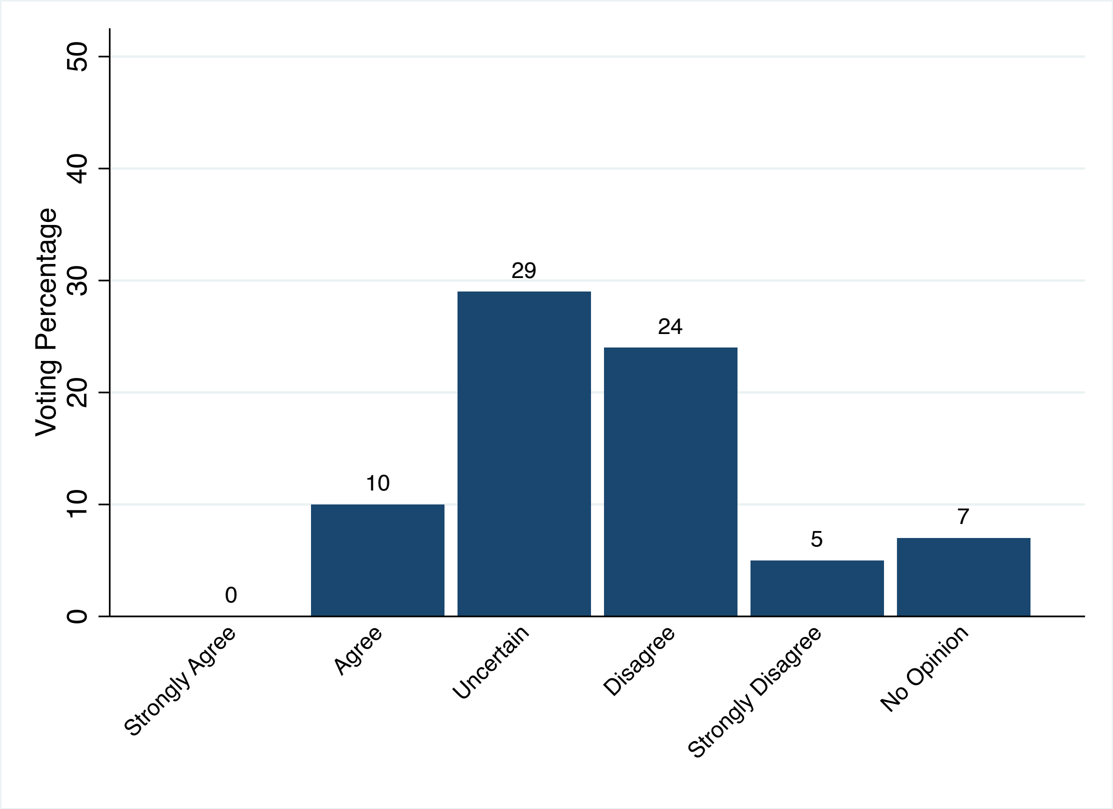


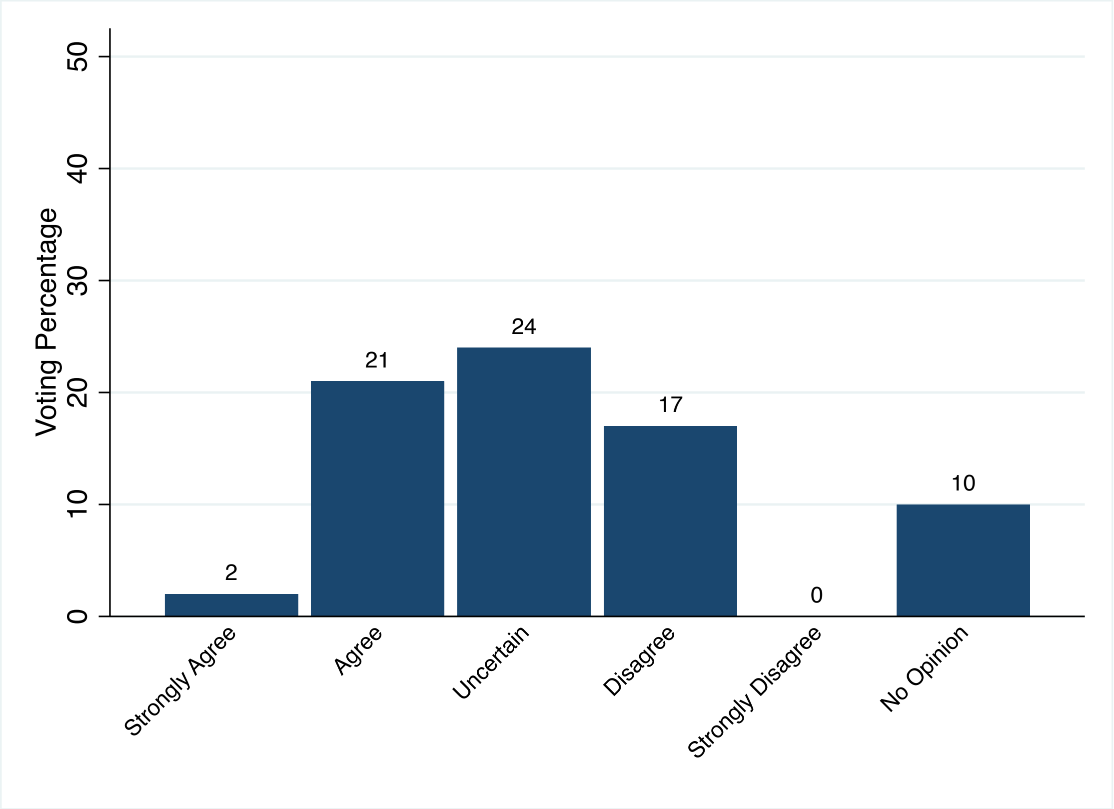
Source: Brookings, OECD.

What Do the IGM Experts Say?

Implementing a **"destination based cash flow tax (including border adjustment)"** of the type advocated by Speaker Ryan would substantially reduce the US **trade deficit** within the next few years. (04/2017)

Implementing a "destination based cash flow tax (including border adjustment)" of the type advocated by Speaker Ryan would substantially **raise prices** for US consumers. (04/2017)



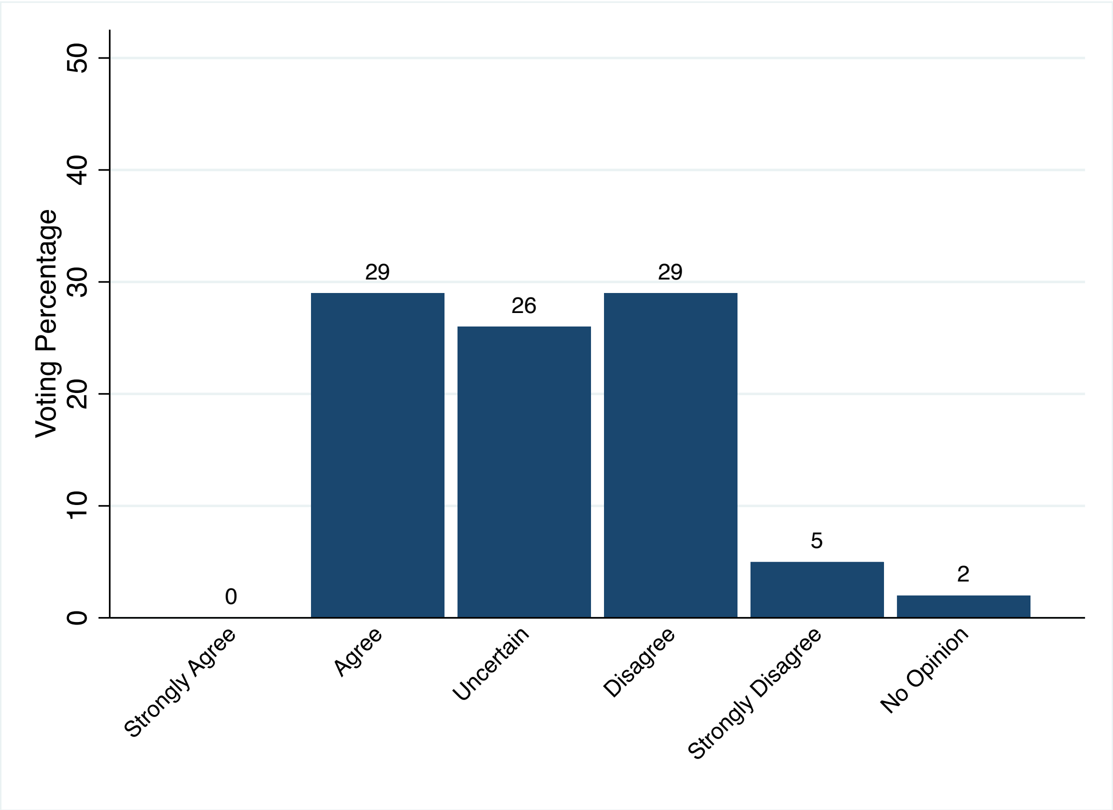


Editorial/Open Questions

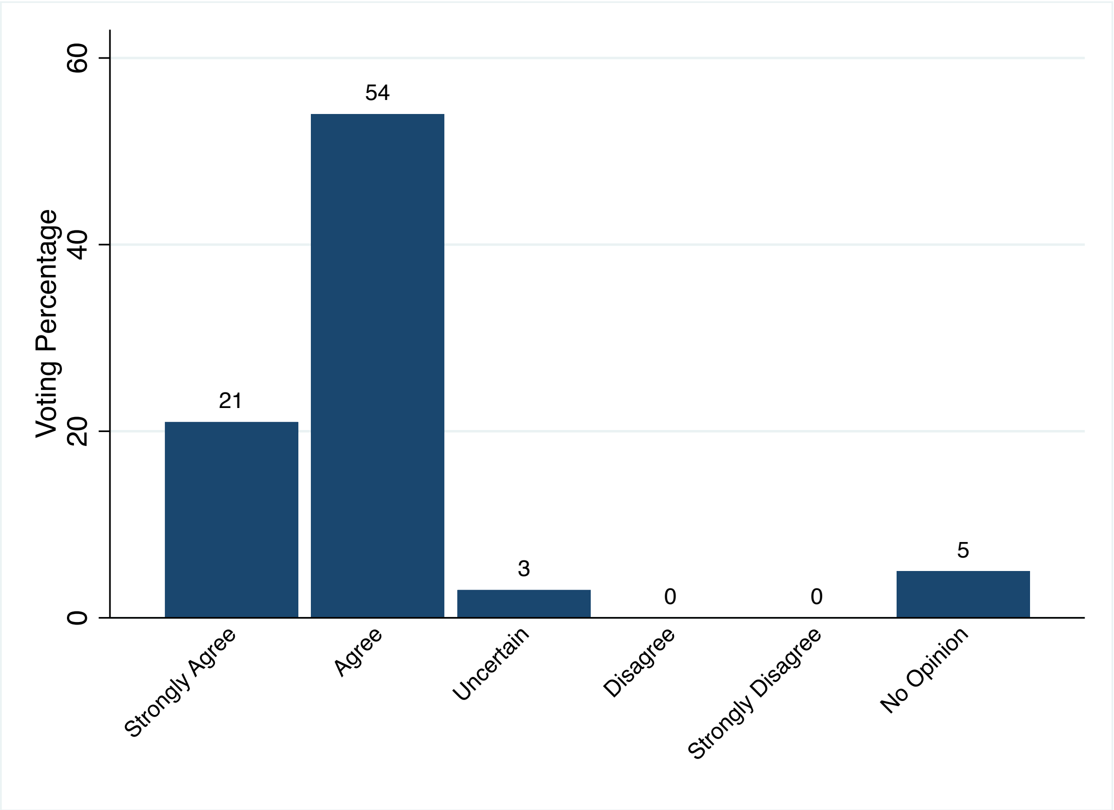
1. What technical corrections will we have over the next year? (*Prelim Answer: Very few.*)
    - TRA86 needed technical corrections. This bill will too.
2. Will the deficit come in above or below projections? (*Prelim Answer: Above next year.*)
    - TRA86 missed revenue targets → tax increases
3. How will the new regime affect reclassification of labor income? (*Prelim Answer: TBD.*)
    - If patient, C corp form might be best.
    - Will service firms merge with coffee shops?
    - Depends on perceived permanence.
4. Will we be able to enforce all the new rules? (*Prelim Answer: Honor system for new rules.*)
5. How much real inbound investment will this cause? (*Prelim Answer: TBD.*)
    - Research here is especially thin.
6. Are the distribution tables politically sustainable? (*Prelim Answer: Unlikely.*)
7. Will consumption tax ever be considered? (*Prelim Answer: TBD.*)
    - If there are pure profits, VAT taxes them.

What Do the IGM Experts Say?

To the extent that a given tax change might affect revenues partly by affecting national-income growth, **existing research provides enough guidance** to generate informative bounds on the size of any growth-driven revenue effect. (02/2015)



Although they do not always agree about the precise effects of tax policies, another reason why economists often give disparate advice on policy is because of **differing views about choices between raising average prosperity and redistributing income**. (10/2012)



Concluding Thoughts

1. **Known unknowns:**
    - Experts uncertain about growth effects
2. **Unknown unknowns:**
    - More uncertainty about international, non-traditional taxes
3. **Known knowns:**
    - Experts agree on many basic questions on tax policy
    - Reform in 2017 will necessitate revenue raising in the future
    - Important papers remain to be written!

Questions for the Crowd

1. How might the tax cut and/or expensing changes affect your investment decisions?
2. Are there any folks considering switching corporate forms from pass-through to C? Or vice versa?
3. How might the international provisions affect your profit location decisions (i.e., US vs abroad) and your real operations overseas?
4. Are you confident the IRS and Treasury will be able to provide sufficient guidance on how to interpret the new rules?
5. Are there issues with regard to the new provisions that you're concerned about?

Other Provisions of Interest

1. **Taxation of retirement savings.** No major changes.
2. **Dividend and capital gains tax.** No major changes, except for partnership profits held for fewer than 3 years, which will be treated as short term capital gains.
3. **Step up of capital gains basis at death.** No change.
4. **Restrictions on tax loss harvesting.** (E.g., first in, first out.) No change.