Goldman Sachs | Economics Research

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US Economics Analyst

The Budget Deficit: Still Growing

- We have lowered our estimates of the federal budget deficit by $50bn (0.2% of GDP) for the current fiscal year and slightly less than $100bn (0.4% of GDP) on average through FY2022. The Congressional Budget Office's projections, which we use as a starting point for our forecasts, have come down by slightly more.
- In FY2019, we project a budget deficit of $950bn (4.5% of GDP), expanding to $1250bn (5.2% of GDP) by 2022.
- In the near-term, this slightly lower deficit is likely to mean that the debt limit will not become binding until October and that net Treasury bill issuance is likely to be somewhat lower.
- We continue to expect the budget deficit to exceed the CBO "current law" baseline. Over the next couple of years, we expect Congress to raise spending caps and to extend various expiring tax and health provisions, which accounts for most of the difference between our estimates and the CBO baseline. Partially offsetting this are somewhat more budget-friendly assumptions regarding borrowing costs.
- Over the ten-year period, we expect the fiscal position to deteriorate further. Barring a significant change in policy direction, the budget deficit looks likely to exceed 6% of GDP by 2029, and the federal debt looks likely to top 100% of GDP (this would put total public debt around 130%).

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The Budget Deficit: Still Growing

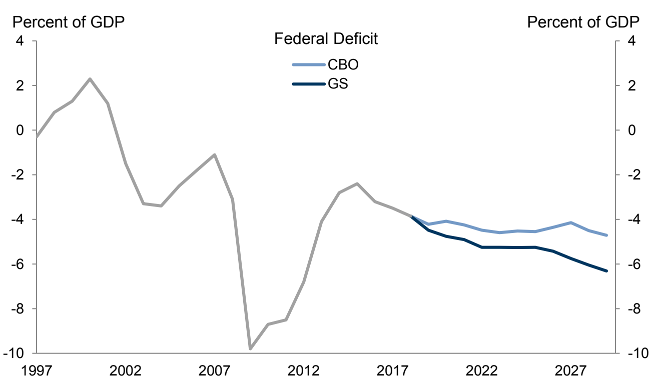
The federal budget outlook has improved slightly, though the underlying trajectory remains problematic. As shown in Exhibit 1, we expect the federal budget deficit in the current fiscal year to be $50bn (0.2% of GDP) lower than our prior estimate, and slightly less than $100bn (0.4% of GDP) lower on average through 2022. The underlying fiscal picture remains broadly unchanged, however. As shown in Exhibit 2, over the longer run, our current policy and economic assumptions suggest that the deficit is likely to continue to widen, exceeding 6% of GDP within 10 years. Federal debt held by the public is likely to reach 100% of GDP by that point (this would put total US public debt at around 130% of GDP, for international comparisons).

Exhibit 1: A Slightly Lower Budget Deficit Forecast

		2014	2015	2016	2017	2018	2019	2020	2021	2022
$(bn)	New	-422	-439	-590	-666	-779	**-950**	**-1,050**	**-1,125**	**-1,250**
	Old	-422	-439	-590	-666	-779	*-1,000*	*-1,125*	*-1,250*	*-1,325*
% GDP	New	-2.8	-2.4	-3.2	-3.5	-3.8	**-4.5**	**-4.8**	**-4.9**	**-5.3**
	Old	-2.8	-2.4	-3.2	-3.5	-3.8	*-4.7*	*-5.1*	*-5.5*	*-5.6*

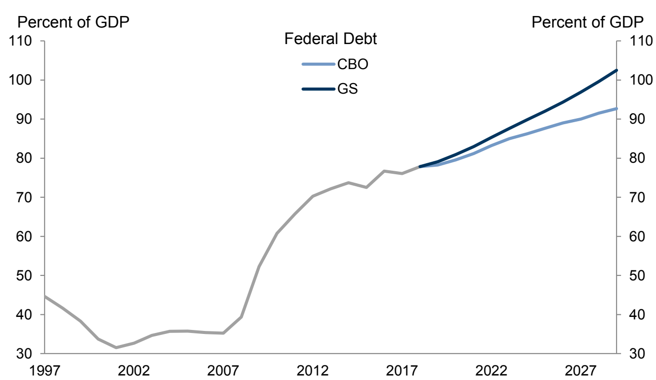
Source: Goldman Sachs Global Investment Research

Exhibit 2: A Deeper Deficit...



Source: Treasury, Congressional Budget Office, Goldman Sachs Global Investment Research

Exhibit 3: ...And Higher Debt



Source: Treasury, Congressional Budget Office, Goldman Sachs Global Investment Research

CBO's most recent projections show a slightly improved budgetary picture compared with last-year's estimates, for three main reasons. First, projected interest expense has declined, the combined effect of lower assumed market rates and slightly lower deficits. Second, projected revenue from customs duties has increased, as a result of the tariffs the Trump Administration has imposed on imports from China and on steel, aluminum, and other products. Third, projected discretionary spending over the next few years has declined somewhat.

While the projected imbalance has narrowed slightly, we note that the Congressional Budget Office's (CBO) deficit projections are still nearly 1% of GDP larger over 2019-2022 than they were two years ago. The main source of the deterioration continues to be a lower projected level of individual and corporate tax receipts following enactment of the 2017 tax law, and to a lesser extent the increase in discretionary spending that Congress enacted in 2018 (Exhibit 4).

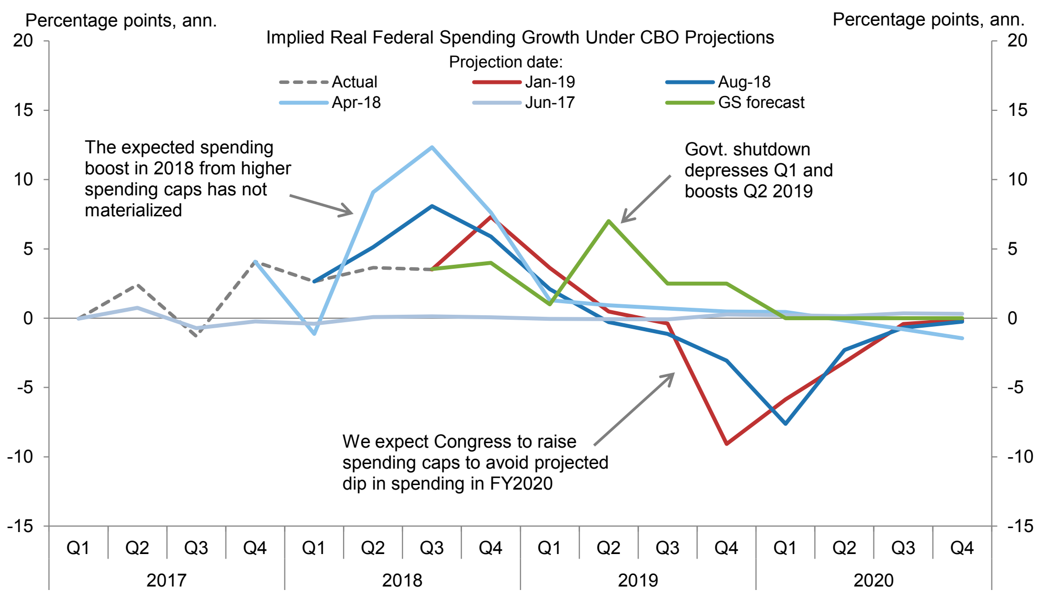
Exhibit 4: An Improvement over 2018 but not 2017 Projections

Average Projected Deficit, FY2019-22 (% of GDP)	
CBO January 2017 projection	**-3.49**
Indiv. income taxes	-0.64
Corp. income taxes	-0.26
Health spending	0.26
Discretionary spending	-0.39
Interest expense	-0.51
Other	0.11
CBO April 2018 projection	**-4.92**
Corp. income taxes	-0.15
Customs duties	0.16
Discretionary spending	0.20
Interest expense	0.16
Other	0.21
CBO January 2019 projection	**-4.33**

Source: Congressional Budget Office, Goldman Sachs Global Investment Research

This good news for the federal budget is not as positive from the perspective of the fiscal impulse to growth, as it partly reflects the recent undershoot in federal spending. Despite the boost to defense and non-defense spending caps that Congress approved in 2018, as well as disaster spending, much of these funds remain unspent, particularly in the non-defense area. One potential reason for this might be the lack of federal net hiring; while the federal hiring freeze President Trump announced shortly after taking office has officially ended, federal non-defense employment is 8k lower than it was at the time of the announcement. Our own federal spending numbers generally reflect this weaker-than-expected spending trend, we believe, and CBO’s numbers have come down considerably over the last few projections as shown in Exhibit 5.

Exhibit 5: An Undershoot in Federal Spending



Source: Congressional Budget Office. Department of Commerce. Goldman Sachs Global Investment Research.

Not Much Uncertainty Left Regarding FY2019

With the current fiscal year nearly halfway over, there is little on the horizon that looks likely to fundamentally change the outlook and we have lowered our FY2019 deficit forecast from $1000bn to $950bn. That said, there are a few variables that could shift the budget balance slightly lower or higher over the remainder of the fiscal year:

- Tax refunds: We expect tax refunds to increase this year by $15bn to $25bn. While some observers have noted the possibility that larger tax refunds might be paid in February and March, we have found little evidence of substantial over-withholding of income taxes in 2018. Nevertheless, the new tax law's effect on tax refunds creates greater uncertainty regarding the upcoming tax season than would typically be the case. CBO's estimates appear to anticipate a similar refund pattern, so an upside surprise in refunds from the level we expect would also mean a wider budget deficit than we or CBO expect. We note that preliminary filing season statistics released by the IRS show an 8% decline in the average refund amount, though only a small percentage of expected tax returns have been processed to date and this figure is likely to change.
- Spending: Spending plans for FY2019 are essentially set at this point, though there might be a small amount—perhaps $10 billion—of upside to spending levels related to disaster relief spending that Congress might approve.
- Policy extensions: A number of expiring tax provisions need to be extended, and while these are likely to add to the deficit, congressional action looks likely to come late enough in the year that they will have little impact on FY2019.
- Capital gains taxes: Capital gains taxes account for around 10% of individual income tax receipts and are more volatile than most other sources of revenue. The equity

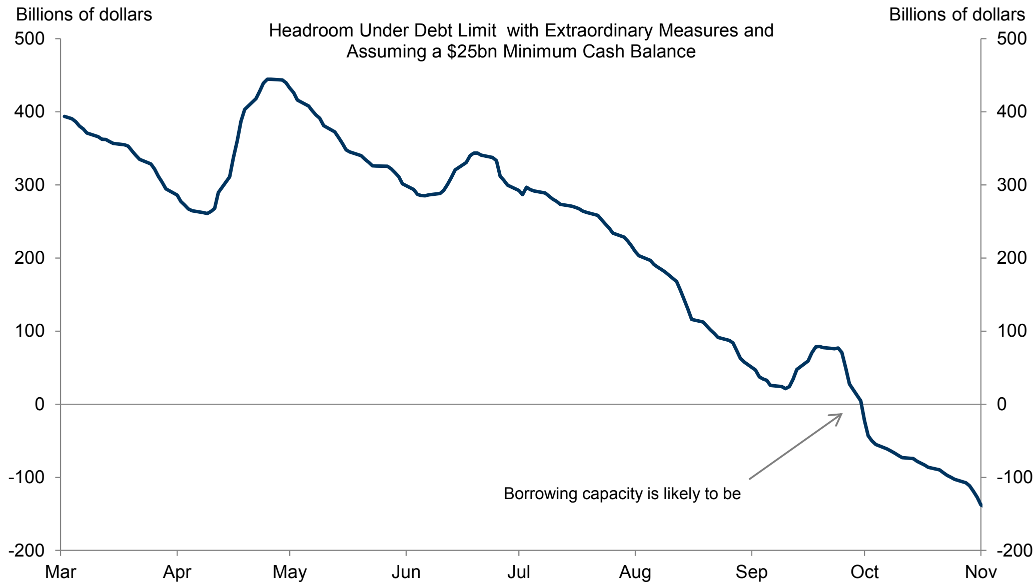
market sell-off in late 2018 raises a risk that this component of income tax receipts could fall short of expectations when taxes are paid for 2018. That said, we find that the year-on-year change in the average value over the course of the year is a much better indicator of capital gains realizations (and thus capital gains taxes paid) than the change in the year-end value. If so, this suggests only modest downside risk to tax receipts due to weak capital gains realizations.

A lower budget deficit in FY2019 would have two near-term implications. First, the Treasury is likely to have more than adequate financing on its current auction schedule. In the most recent quarterly refunding, the Treasury held nominal coupon auction sizes steady, after repeated increases over the last year, and our expectation has been that nominal coupon auctions will continue at their current sizes until increasing much more gradually—at a pace of $1bn per security every 6 months— starting in November 2019 or February 2020, depending on the security. Since we already expected nominal coupon auction sizes to remain unchanged for most of the year but believe the Treasury is unlikely to reduce auction sizes anytime soon, we expect that a slightly lower budget deficit would lead the Treasury to reduce net bill issuance.

The second implication is that the debt limit might take slightly longer to constrain Treasury borrowing. The debt limit will be reinstated March 2, when the suspension enacted last year expires. At that point, we expect the Treasury to have roughly a $200bn cash balance on hand, which it can use to finance the deficit along with slightly more than $300bn in accounting strategies (known as "extraordinary measures") to extend borrowing capacity. Assuming that the Treasury will aim to prevent the cash balance from dipping below $25bn, as it has in prior debt limit debates, this implies a deadline for congressional action of no later than early October (Exhibit 6). While not related to the debt limit, we note that Congress must also enact spending legislation by October 1 to avoid another government shutdown. It is not yet clear whether the upcoming debt limit deadline will prove as disruptive as some have in the past. While the general political environment at the moment suggests that the next debt limit could create uncertainty, recent rules changes in the House could ease passage in Congress and allow for passage well before the deadline.[1]

[1] The House of Representatives approved rules at the start of the year which would automatically pass a debt limit suspension in the House through September 30, 2020 at the same time that the House passes its FY2020 budget resolution. This increases the probability that the Senate will receive a "clean" debt limit increase from the House, without controversial policy riders that have sometimes hindered debt limit increases in the past.

Exhibit 6: Congress Needs to Raise the Debt Limit by October

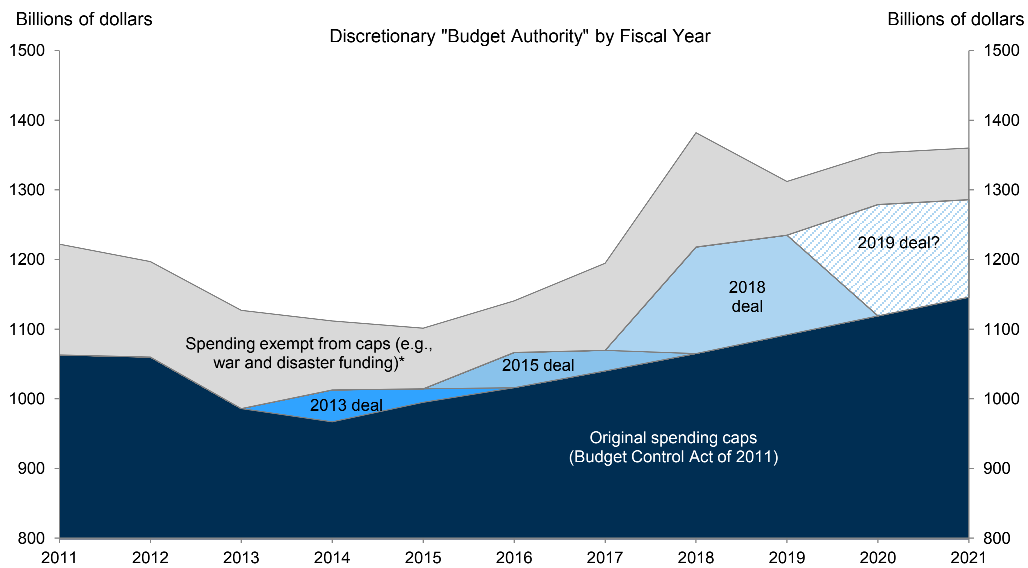


Source: Treasury. Goldman Sachs Global Investment Research.

Somewhat Greater Uncertainty in FY2020

There is more uncertainty regarding the budget outlook for FY2020, though we think the risks are roughly balanced around our revised forecast of $1.025 trillion. The main policy variable is the expiration of recently increased spending caps. If Congress does not act by year-end 2019, automatic cuts will lower spending starting January 1, 2020. Our expectation is that Congress will once again increase the spending caps, allowing for greater spending without risk of automatic cuts. However, this requires a proactive step by Congress, and therefore bipartisan agreement. Reaching such an agreement could be somewhat more difficult than it has been over the last few years, not only because of divided control of Congress but also because the recent increases in non-defense spending authority—a Democratic priority—have failed to materialize in actual spending, while most of the recent increases in defense spending authority—a Republican priority—have translated into higher observed spending. This mismatch could reduce Democratic support for further increases. If Congress does not raise the caps, spending authority would decline by $116bn in FY2020, though actual spending might only decline by around half that amount. Nevertheless, this could reduce federal outlays by around 0.25% of GDP. Our forecast for government spending assumes that Congress will extend the caps at the current level in real terms (Exhibit 7).

Exhibit 7: Another Spending Deal?



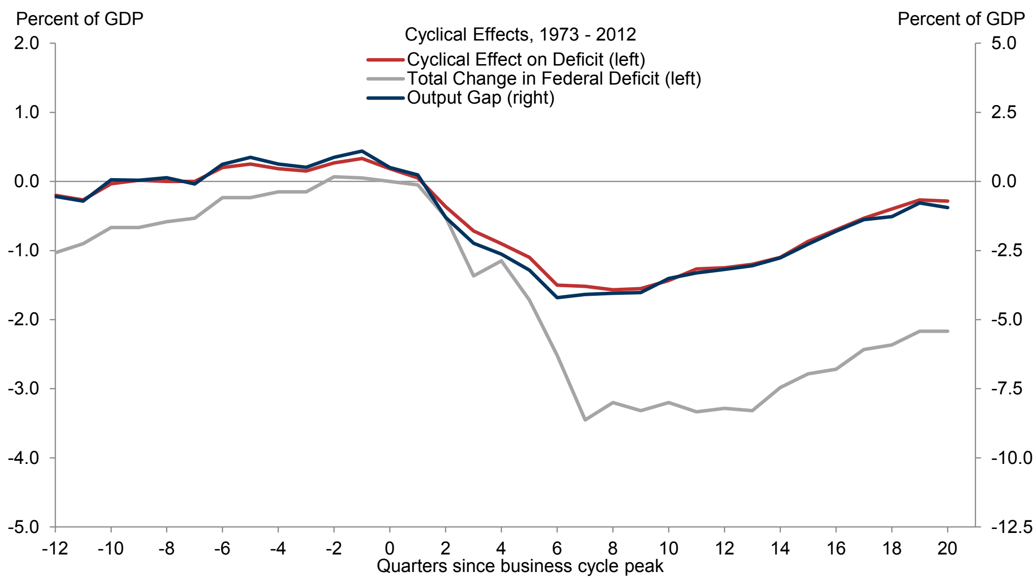
Source: Congressional Budget Office, Treasury, Goldman Sachs Global Investment Research

2021 and Beyond: A Growing Imbalance and Risks Toward Larger Deficits

The 2020 presidential election and greater uncertainty regarding the economic outlook imply a wider range of outcomes for the federal budget in 2021 and beyond. It is difficult to predict what policy decisions might be made at that point, but we would make two general observations that lean in the direction of larger budget deficits.

First, while we expect growth to slow to below 2% after 1H 2019, we do not forecast a recession. That said, a recession is clearly possible over the next several years and it would meaningfully widen the budget deficit, at least temporarily. As a rough rule of thumb, in prior business cycles back to the 1960s, a one percentage point widening in the output gap has been associated with a 0.4pp deterioration in the budget balance due to cyclical effects. Countercyclical fiscal policy and other factors have added 1.5-2% of GDP to the deficit in prior downturns, on top of cyclical effects. Altogether, recessions have added an average of 3-4% of GDP to the deficit around the time that the business cycle troughs and, as shown in Exhibit 8, the effects typically last several years. The current elevated level of federal debt and the already-large cyclically adjusted deficit could constrain the countercyclical policy response in the next downturn but we would still expect the general trend to hold.

Exhibit 8: A Recession Would Widen the Deficit Further



Source: Congressional Budget Office. Department of Commerce. Goldman Sachs Global Investment Research.

Second, deficit reduction does not appear to be a priority for either political party. For example, in Gallup's long-running survey question asking about the "most important problem" facing the country at the moment, only 2% of respondents believe it is the budget deficit, compared with prior highs in the early and mid-1990s of more than 20% of respondents. While this is likely to change eventually, there is little indication that political leaders will take proactive steps to reduce the deficit through tax increases or spending cuts in the next few years.

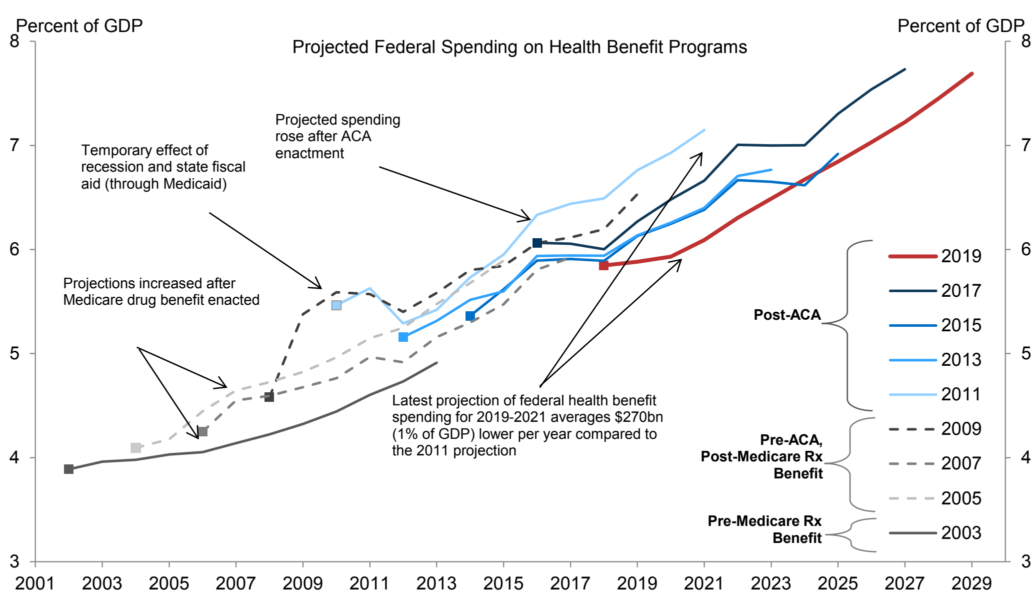
Our forecast assumes a continuation of expiring tax policies, which would have only a modest effect in the next few years but widen the deficit by more than 1% of GDP by 2027 compared with the baseline CBO projection. In reality, Congress is likely to change tax laws again at some point over the next several years, but we expect that any tax increases that Congress enacts would be more likely to fund new spending (or offset the cost of other tax cuts) than to reduce the budget deficit.

On the spending side, we assume that the level of spending will be held constant in real terms once Congress raises the spending caps for FY2020-21. The rationale for this assumption is that discretionary spending levels have been more sensitive in the past to increasing debt and deficit levels and, in light of the growing deficit and debt-to-GDP ratios that we expect, Congress seems unlikely to approve substantial further increases in discretionary spending. That said, there is likely a political limit to how slowly this segment of the budget can grow. By 2024, for example, even with our assumption that Congress will raise discretionary spending beyond what CBO projects, discretionary spending would dip below 6.0% of GDP, the previous low point in the post-WWII era reached in the late 1990s.

Silver Linings

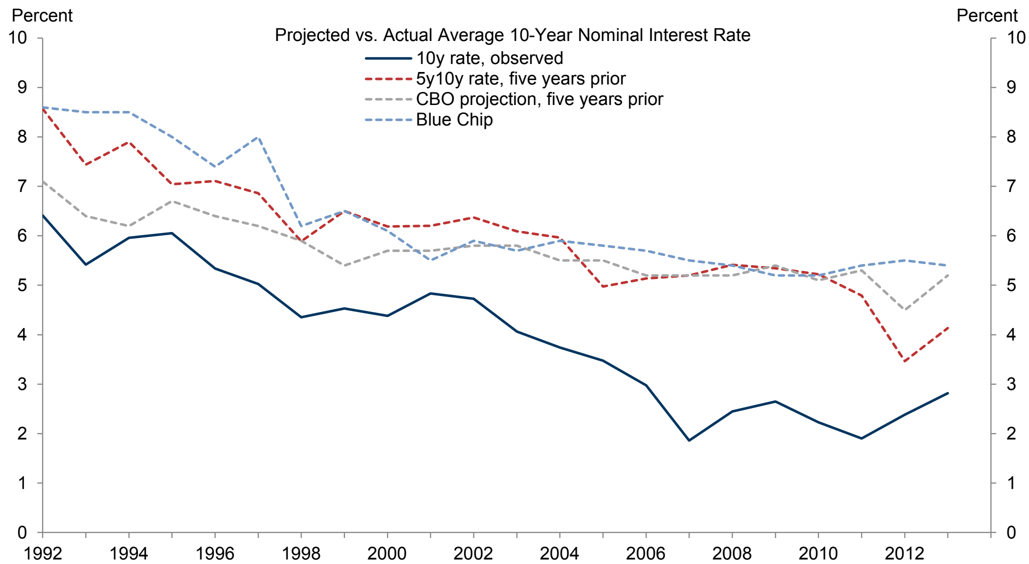
While we do not expect lawmakers to take steps to meaningfully reduce the deficit over the next few years, there is some good news in two areas of the budget. First, while projected health spending is very likely to rise as a share of GDP, projected spending continues to be revised lower. CBO's recent projections of spending on the major federal health insurance programs—Medicare, Medicaid, and subsidies related to the Affordable Care Act (ACA)—are notable for once again lowering the projected spending level compared with prior estimates. Exhibit 9 compares projected spending levels on the major federal health programs, including the Medicare drug benefit after Congress enacted it in 2003 and the ACA after 2010. Over the next three years (FY2019-FY2021), CBO projects spending on these programs to be 1% of GDP lower than CBO projected for those same years in 2011, shortly after Congress enacted the ACA. Even compared to 2017 projections, spending expectations have dropped considerably, owing to lower projected subsidy payments following enactment of the 2017 tax law, which Congress used to repeal the penalty for lacking health insurance under the ACA's individual mandate.

Exhibit 9: Federal Health Spending Has Grown More Slowly Than Projected



Source: Congressional Budget Office, Goldman Sachs Global Investment Research

Exhibit 10: Public- and Private-Sector Forecasts Have Consistently Overestimated Future Interest Rates



Source: Federal Reserve, Congressional Budget Office, BlueChip, Goldman Sachs Global Investment Research

Interest expense might also be somewhat lower than CBO's projections. CBO projections assume a 10-year Treasury yield of 3.75% over the long run, only slightly below CBO's projected rate of nominal GDP growth. However, as shown in Exhibit 10, official projections as well as private sector forecasts have consistently over-estimated the level of the 10-year yield five years forward. For purposes of calculating the interest expense on federal debt, we assume that yields follow our published forecasts through 2022 (an average of 2.8% on the 10-year Treasury) and converge to 3.25% over the longer run. Over the next ten years, this assumption lowers the average budget deficit by roughly 0.25% of GDP.

Alec Phillips

The US Economic and Financial Outlook

(% change on previous period, annualized, except where noted)

	2016	2017	2018 (f)	2019 (f)	2020 (f)	2021 (f)	2022 (f)	2018 Q1	2018 Q2	2018 Q3	2018 Q4	2019 Q1	2019 Q2	2019 Q3	2019 Q4
OUTPUT AND SPENDING															
Real GDP	**1.6**	**2.2**	*2.9*	*2.4*	*2.0*	*1.6*	*1.7*	**2.2**	**4.2**	**3.4**	*2.5*	*1.7*	*2.4*	*2.0*	*2.0*
Real GDP (Q4/Q4)	**1.9**	**2.5**	*3.1*	*2.0*	*1.9*	*1.5*	*1.7*	--	--	--	--	--	--	--	--
Consumer Expenditure	**2.7**	**2.5**	*2.7*	*2.8*	*2.2*	*1.8*	*1.9*	**0.5**	**3.8**	**3.5**	*3.3*	*2.4*	*2.6*	*2.5*	*2.3*
Residential Fixed Investment	**6.5**	**3.3**	*-0.3*	*-1.4*	*4.6*	*2.9*	*2.3*	**-3.4**	**-1.4**	**-3.5**	*-4.8*	*-2.0*	*-1.0*	*4.0*	*4.0*
Business Fixed Investment	**0.5**	**5.3**	*6.8*	*3.2*	*2.8*	*2.7*	*3.0*	**11.5**	**8.7**	**2.5**	*4.3*	*2.4*	*2.2*	*2.9*	*2.9*
Structures	**-5.0**	**4.6**	*5.0*	*0.9*	*2.0*	*2.0*	*2.0*	**13.9**	**14.5**	**-3.4**	*-3.9*	*2.0*	*2.0*	*2.0*	*2.0*
Equipment	**-1.5**	**6.1**	*7.4*	*2.5*	*2.4*	*2.5*	*2.8*	**8.5**	**4.6**	**3.4**	*6.0*	*0.0*	*1.0*	*2.5*	*2.5*
Intellectual Property Products	**7.5**	**4.6**	*7.3*	*5.8*	*3.9*	*3.5*	*3.8*	**14.1**	**10.5**	**5.6**	*8.0*	*6.0*	*4.0*	*4.0*	*4.0*
Federal Government	**0.4**	**0.7**	*2.8*	*3.4*	*1.2*	*0.0*	*0.0*	**2.6**	**3.6**	**3.5**	*4.0*	*1.0*	*7.0*	*2.5*	*2.5*
State & Local Government	**2.0**	**-0.5**	*0.9*	*1.4*	*0.4*	*0.0*	*0.0*	**0.9**	**1.8**	**2.0**	*0.8*	*1.5*	*1.5*	*1.0*	*1.0*
Net Exports ($bn, '09)	**-786**	**-859**	*-909*	*-957*	*-1,004*	*-1,042*	*-1,082*	**-902**	**-841**	**-950**	*-943*	*-934*	*-947*	*-965*	*-981*
Inventory Investment ($bn, '09)	**23**	**23**	*36*	*29*	*20*	*20*	*25*	**30**	**-37**	**90**	*60*	*35*	*35*	*25*	*20*
Industrial Production, Mfg.	**-0.8**	**1.2**	*2.4*	*1.4*	*0.9*	*0.8*	*0.8*	**2.0**	**2.3**	**3.6**	**2.3**	*0.5*	*0.8*	*0.8*	*0.8*
HOUSING MARKET															
Housing Starts (units, thous)	**1,177**	**1,208**	*1,276*	*1,268*	*1,314*	*1,379*	--	**1,317**	**1,261**	**1,234**	*1,294*	*1,262*	*1,248*	*1,282*	*1,279*
New Home Sales (units, thous)	**560**	**616**	*644*	*680*	*700*	*727*	--	**656**	**633**	**607**	*680*	*681*	*673*	*681*	*685*
Existing Home Sales (units, thous)	**5,441**	**5,536**	**5,343**	*5,210*	*5,259*	*5,310*	--	**5,507**	**5,413**	**5,273**	**5,180**	*5,192*	*5,204*	*5,216*	*5,228*
Case-Shiller Home Prices (%yoy)*	**4.9**	**6.2**	*4.4*	*3.3*	*2.8*	*2.6*	*2.3*	**6.6**	**6.2**	**5.5**	*4.3*	*3.4*	*3.7*	*3.4*	*3.3*
INFLATION (% ch, yr/yr)															
Consumer Price Index (CPI)	**1.3**	**2.1**	**2.4**	*1.8*	*2.3*	*2.3*	*2.3*	**2.3**	**2.6**	**2.6**	**2.2**	*1.6*	*1.8*	*1.9*	*1.9*
Core CPI	**2.2**	**1.8**	**2.1**	*2.3*	*2.4*	*2.5*	*2.4*	**1.9**	**2.2**	**2.2**	**2.2**	*2.1*	*2.2*	*2.3*	*2.3*
Core PCE**	**1.7**	**1.6**	*1.9*	*2.0*	*2.2*	*2.2*	*2.2*	**1.7**	**1.9**	**2.0**	*1.9*	*1.9*	*1.9*	*2.0*	*2.1*
LABOR MARKET															
Unemployment Rate (%)	**4.9**	**4.4**	**3.9**	*3.7*	*3.5*	*3.7*	*3.7*	**4.1**	**3.9**	**3.8**	**3.8**	*3.9*	*3.8*	*3.6*	*3.6*
U6 Underemployment Rate (%)	**9.6**	**8.5**	**7.7**	*7.4*	*6.8*	*7.0*	*7.1*	**8.1**	**7.8**	**7.4**	**7.5**	*7.9*	*7.4*	*7.2*	*7.0*
Payrolls (thous, monthly rate)	**199**	**180**	**221**	*156*	*88*	*64*	*85*	**214**	**232**	**222**	**216**	*190*	*160*	*150*	*125*
GOVERNMENT FINANCE															
Federal Budget (FY, $bn)	**-590**	**-666**	**-779**	*-950*	*-1,050*	*-1,125*	*-1,250*	--	--	--	--	--	--	--	--
FINANCIAL INDICATORS															
FF Target Range (Bottom-Top, %)^	**0.5-0.75**	**1.25-1.5**	**2.25-2.5**	*2.5-2.75*	*2.5-2.75*	*2.5-2.75*	*2.5-2.75*	**1.5-1.75**	**1.75-2**	**2.0-2.25**	**2.25-2.5**	*2.25-2.5*	*2.25-2.5*	*2.25-2.5*	*2.5-2.75*
10-Year Treasury Note^	**2.45**	**2.40**	**2.69**	*3.00*	*2.85*	*2.80*	*2.80*	**2.74**	**2.85**	**3.05**	**2.69**	*2.75*	*2.90*	*3.00*	*3.00*
Euro (€/$)^	**1.06**	**1.20**	**1.15**	*1.20*	*1.25*	*1.30*	*1.35*	**1.23**	**1.17**	**1.16**	**1.15**	*1.16*	*1.19*	*1.20*	*1.20*
Yen ($/¥)^	**117**	**113**	**110**	*105*	*105*	*100*	*97*	**106**	**111**	**113**	**110**	*108*	*107*	*106*	*105*

* Weighted average of metro-level HPIs for 381 metro cities where the weights are dollar values of housing stock reported in the American Community Survey.
** PCE = Personal consumption expenditures. ^ Denotes end of period.
Note: Published figures in bold.

GS Modal and Probabilistic Fed Call

Quarter*	GS Modal Path of Target Range^	Hike Probability GS	Cut Probability GS	No Change Probability GS	Expected Value of Funds Rate^ GS**	Expected Value of Funds Rate^ Market
Current value	**2.25%-2.50%**	--	--	--	**2.40**	**2.40**
2019Q1	**2.25%-2.50%**	<5	5	90	**2.39**	**2.39**
2019Q2	**2.25%-2.50%**	25	5	70	**2.43**	**2.39**
2019Q3	**2.25%-2.50%**	45	10	45	**2.49**	**2.38**
2019Q4	**2.50%-2.75%**	55	10	35	**2.58**	**2.33**
2020Q1	**2.50%-2.75%**	45	10	45	**2.64**	**2.28**
2020Q2	**2.50%-2.75%**	40	10	50	**2.69**	**2.21**
2020Q3	**2.50%-2.75%**	20	15	65	**2.66**	**2.16**
2020Q4	**2.50%-2.75%**	20	20	60	**2.61**	**2.14**
	Modal Number of Hikes				**Expected Value of Number of Net Hikes**	
2019	**1**				**0.7**	**-0.3**
2020	**0**				**0.2**	**-0.8**

^ Denotes end of period.
* Probabilities represent the likelihood of a policy change at either meeting in a given quarter.
** We assume hikes are 25bp per quarter and cuts average 50bp per quarter. The GS expected value of the funds rate is equal to the prior quarter value + 0.25 * the hike probability - 0.5 * the cut probability.
Note: No change to GS probabilities since last update on February 1, 2019.

Source: Goldman Sachs Global Investment Research

Economic Releases and Other Events

Date		Time (EST)	Indicator	Estimate GS	Consensus	Last Report
Wed	**Feb 13**	**8:30**	**Consumer Price Index (Jan)**	**+0.11%**	**+0.1%**	**-0.1%**
			Ex Food and Energy	**+0.22%**	**+0.2%**	**+0.2%**
			Consumer Price Index NSA	**n.a.**	**251.617**	**251.233**
		14:00	Federal Budget Balance (Dec)	n.a.	-$10.5bn	-$204.9bn
Thu	**Feb 14**	**8:30**	**Producer Price Index, Final Demand (Jan)**	**+0.1%**	**+0.1%**	**-0.2%**
			Ex Food & Energy	**+0.2%**	**+0.2%**	**-0.1%**
			Ex Food, Energy, and Trade	**0.2%**	**+0.2%**	**Flat**
		8:30	**Retail Sales (Dec)**	**Flat**	**+0.1%**	**+0.2%**
			Ex Autos	**Flat**	**Flat**	**+0.2%**
			Ex Autos & Gas	**+0.2%**	**+0.4%**	**+0.5%**
			Ex Autos, Bldg Materials & Gas	**+0.1%**	**+0.4%**	**+0.9%**
		8:30	**Initial Jobless Claims**	**220,000**	**225,000**	**234,000**
		8:30	Continuing Claims	n.a.	1,740,000	1,736,000
		10:00	Business Inventories (Nov)	n.a.	+0.3%	+0.6%
Fri	**Feb 15**	8:30	Empire Manufacturing Survey (Feb)	n.a.	+7.5	+3.9
		8:30	Import Price Index (Jan)	n.a.	-0.2%	-1.0%
		9:15	**Industrial Production (Jan)**	**+0.2%**	**+0.1%**	**+0.3%**
		9:15	**Manufacturing Production (Jan)**	**+0.1%**	**Flat**	**+1.1%**
		9:15	**Capacity Utilization (Jan)**	**78.3**	**78.7**	**78.7**
		10:00	**UMich Consumer Sentiment—Prel (Feb)**	**95.0**	**94.0**	**91.2**
		16:00	Total TIC Data (Dec)	n.a.	n.a.	+$31.0bn

Source: Goldman Sachs Global Investment Research

Disclosure Appendix

Reg AC

We, Jan Hatzius, Alec Phillips, David Mericle, Spencer Hill, Daan Struyven, Brian Chen, David Choi, Blake Taylor and Ronnie Walker, hereby certify that all of the views expressed in this report accurately reflect our personal views, which have not been influenced by considerations of the firm's business or client relationships.

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