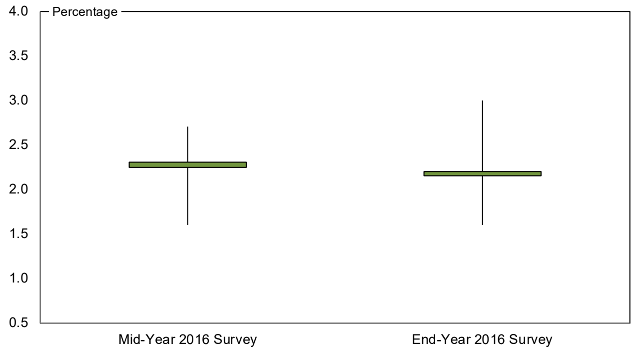
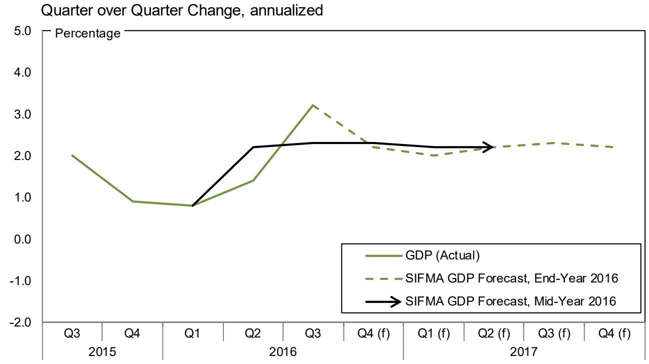
Full Year 2017 GDP Growth Estimates
Mid-Year 2016 vs End-Year 2016



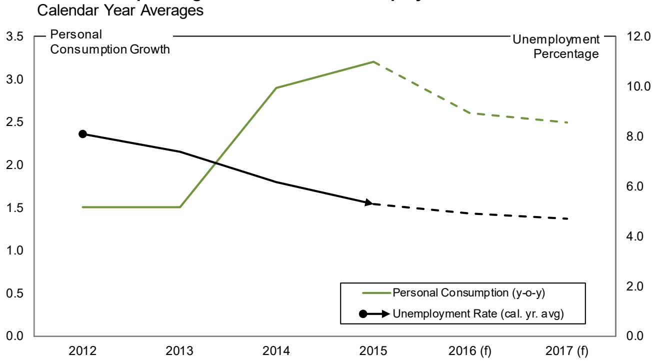
Sources: SIFMA Economic Advisory Roundtable Mid-Year 2016 and End-Year 2016 Economic Outlook Surveys

Real GDP Growth Rate
Quarter over Quarter Change, annualized



*(f) Forecast
Source: Actuals: Bureau of Economic Analysis; Forecasts: SIFMA Economic Advisory Roundtable End-Year 2016 Economic Outlook Survey

Consumer Spending Growth Rate and Unemployment Rate
Calendar Year Averages



*(f) Forecast
Source: Actuals: Bureau of Economic Analysis (Personal Consumption) & Bureau of Labor Statistics (Unemployment); Forecasts: SIFMA Economic Advisory Roundtable End-Year 2016 Economic Outlook Survey

2017 GDP OUTLOOK WEAKENS SLIGHTLY TO 2.2 PERCENT; BUSINESS SPENDING AND PRIVATE CREDIT MARKET CONDITIONS KEY FACTORS

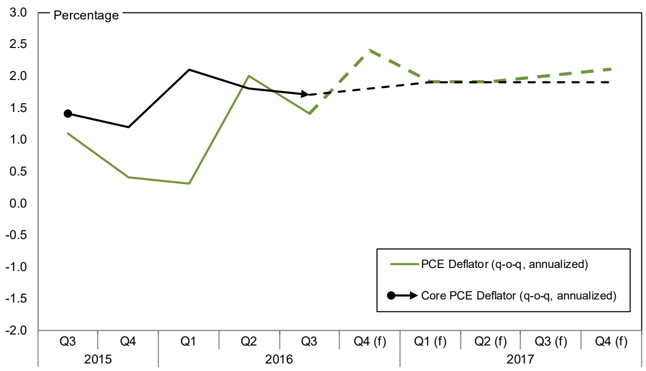
SIFMA's Economic Advisory Roundtable forecasted that the U.S. economy will grow 1.6 percent in 2016, strengthening[1] to 2.2 percent in 2017. The current outlook for 2016 and 2017 is slightly weaker than the Roundtable's mid-year prediction, although the range of the 2017 forecast is wider and skewed more to the upside.

THE ECONOMY The median end-year forecast calls for 2016 gross domestic product (GDP) to grow by 1.6 percent on a year-over-year basis and by 1.8 percent on fourth-quarter-to-fourth-quarter basis, weaker than the 1.8 percent and 2.0 percent predicted on a year-over-year and fourth-quarter-to-fourth-quarter basis, respectively, in the mid-year 2016 survey.[2] Looking forward, respondents expect real GDP to grow by 2.2 percent in 4Q'16 on an annualized basis, falling to 2.0 percent in the first quarter of 2017 before rising back to 2.2 percent by the end of 2017. [3] On a full year basis, GDP growth is expected to be 2.2 percent in 2017, slightly weaker than the 2.3 percent forecast in the mid-year survey, and by 2.8 percent on a fourth-quarter-to-fourth-quarter basis.[4]

Employment is expected to continue to improve, although on a slightly weaker basis than expected in the mid-year survey. Survey respondents predict the unemployment rate to fall from an average of 4.9 percent in 2016 to 4.7 percent in 2017.[5] Employers are expected to add 2.2 million workers to their payrolls in 2016,[6] falling to 1.9 million in 2017.[7] The Roundtable expects personal consumption to weaken slightly from 2.6 percent in 2016 to 2.5 percent in 2017.[8]

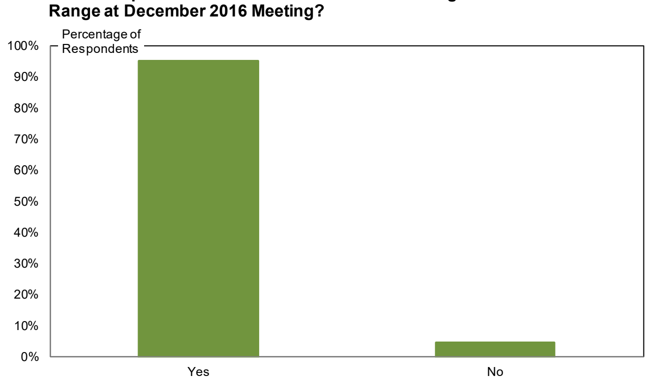
[1] The end-year 2016 survey was conducted from November 11, 2016 to December 1, 2016. The forecasts discussed in the text and appearing in the accompanying data tables and graphs are the median values of the individual member firms' submissions, unless otherwise specified. Please see page 6 for a list of the 22 SIFMA-member firms' economists who participated in the survey.
[2] The full-year 2016 GDP growth forecasts ranged from 1.5 percent to 2.7 percent and on a fourth-quarter-to-fourth-quarter basis ranged from 1.5 percent to 2.0 percent.
[3] On a quarterly basis, annualized GDP growth forecasts ranged from 1.0 percent to 2.8 percent in 4Q'16, 0.9 percent to 3.2 percent in 1Q'17, 1.5 percent to 3.2 percent in 2Q'17, 1.2 percent to 3.5 percent in 3Q'17, and 1.5 percent to 4.0 percent in 4Q'17.
[4] The full-year 2017 GDP growth forecasts ranged from 1.6 percent to 3.0 percent, and from 2.3 percent to 3.2 percent on a fourth-quarter-to-fourth-quarter basis.
[5] The full-year 2016 average unemployment rate forecast ranged from 4.4 percent to 5.0 percent and for 2017 ranged from 4.2 percent to 5.1 percent.
[6] The full-year 2016 non-farm payroll employment growth forecasts ranged from 1.4 million jobs to 2.5 million jobs.
[7] The full-year 2017 non-farm payroll employment growth forecasts ranged from 1.1 million jobs to 2.8 million jobs.
[8] Personal consumption growth forecasts ranged from 2.6 percent to 3.5 percent in 2016, and 2.2 percent to 3.6 percent in 2017.

PCE Deflator & Core PCE Deflator



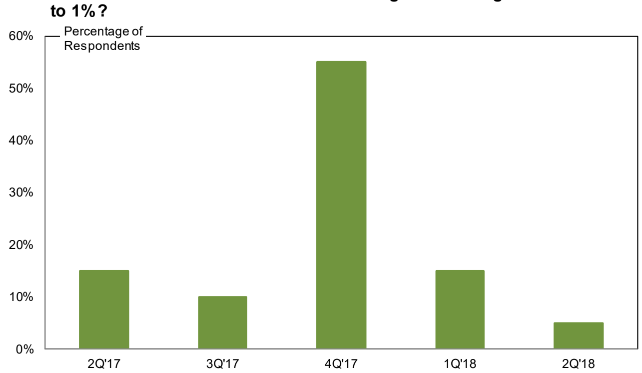
*(f) Forecast
Source: Actuals: Bureau of Economic Analysis; Forecasts: SIFMA Economic Advisory Roundtable End-Year 2016 Economic Outlook Survey

Do You Expect the FOMC Raise the Fed Funds Target Rate Range at December 2016 Meeting?



Source: SIFMA Economic Advisory Rountable End-Year 2016 Economic Outlook Survey

When Will the Lower End of Fed Funds Target Rate Range Rise to 1%?



Source: SIFMA Economic Advisory Rountable End-Year 2016 Economic Outlook Survey

Estimates for business capital investment for full-year 2016 remained the same as mid-year, forecasting a 0.4 percent decline, while the outlook weakened considerably in 2017 to 2.7 percent (from 3.5 percent forecasted in the mid-year survey).[9] The outlook for state and local government spending also weakened to 0.9 percent in 2016 (down from 1.6 percent growth estimated previously) and 1.0 percent growth estimated in 2017 (down from 1.7 percent growth estimated mid-year).[10]

The forecast for "headline" inflation, measured by the personal consumption expenditures (PCE) chain price index, was 1.1 percent for 2016, rising to 1.9 percent in 2017.[11] The projection for the core PCE chain price index, which excludes food and energy prices, was 1.7 percent for full-year 2016 and 1.8 percent for full-year 2017, both estimates unchanged from mid-year.[12]

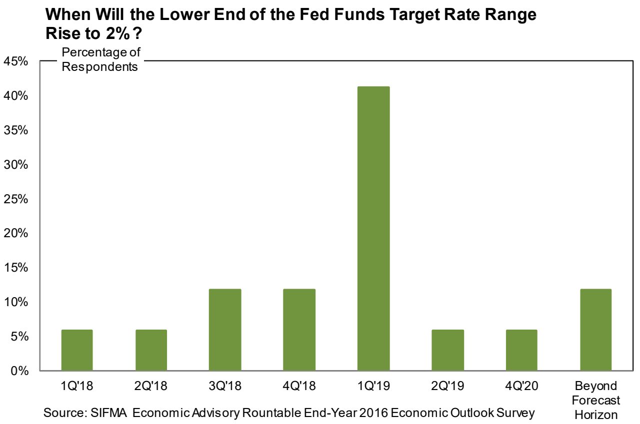
Economic slack/unemployment remained the dominant factor cited in the core inflation outlooks, followed by the strength of the U.S. dollar. One respondent noted that the "soft global economy and strong dollar should limit pressure from commodities," while a few respondents continued to note housing costs remained a concern.

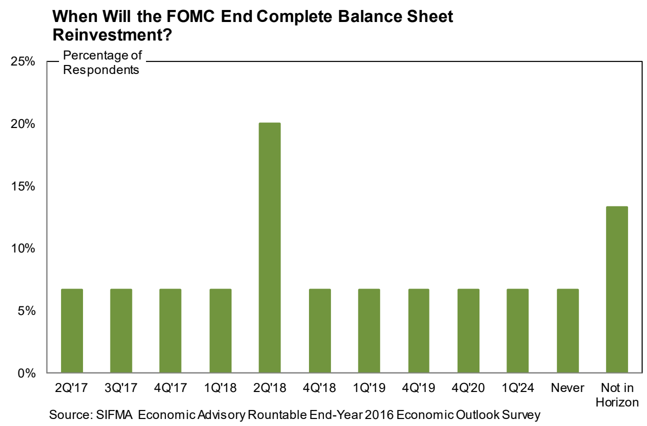
MONETARY POLICY All but one respondent expect the Federal Open Market Committee (FOMC) to hike the Federal Reserve's target rate range at the December 13-14, 2016 meeting. Respondents' rate hike expectations were not impacted by the results of the presidential election, although a handful admitted they did wait to see how the markets reacted.

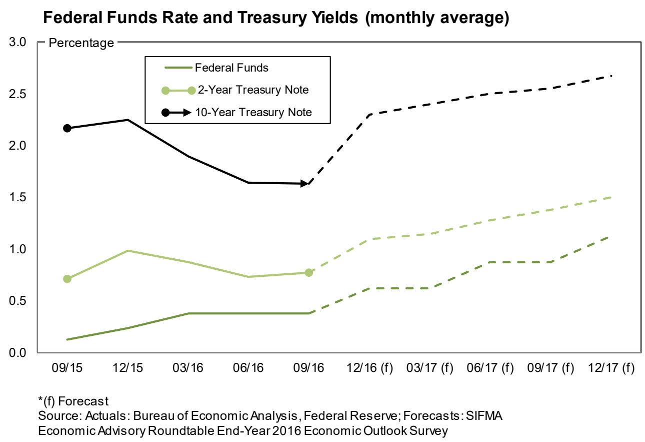
Respondents were generally uniform for the number of rate hikes they expect in 2017, with 75 percent of respondents forecasting two additional rate hikes in 2017, 20 percent only one rate hike and the remainder expecting three.

Survey respondents considered labor market conditions the most important factor in the FOMC's decision to raise rates, followed by inflation or inflationary expectations. One respondent noted that a possible fiscal stimulus might play a factor.

[9] The full-year 2016 business fixed investment forecasts ranged from (0.7) percent to 2.2 percent and for 2017 ranged from 1.1 percent to 3.9 percent.
[10] The full-year 2016 real state and local government spending forecasts ranged from 0.8 percent to 2.3 percent and for 2017 ranged from 0.4 percent to 2.5 percent.
[11] The full-year 2016 PCE deflator forecasts ranged from 1.0 percent to 2.4 percent and for 2017, from 1.1 percent to 2.5 percent.
[12] The full-year 2016 core PCE deflator forecasts ranged from 1.6 percent to 1.9 percent and for 2017 from 1.3 percent to 2.2 percent.







Asked when the lower end of the target federal funds rate range would reach one percent, responses were dispersed: 15 percent of respondents predicted 2Q'17, 10 percent forecast 3Q'17, 55 percent 4Q'17, and the balance (20 percent) in the first half of 2018. Expectations for when the lower end of the target federal funds rate range would reach two percent spanned from 1Q'18 to 2020 (or beyond the respondent's forecast horizon), with responses clustering around the second half of 2018 (20 percent) and the first quarter of 2019 (41 percent).

Although the Fed concluded its asset purchase program in October 2014, it has continued to maintain accommodative financial conditions through its policy of rolling over Treasury securities as well as reinvesting principal payments from its holdings of agency debt and agency mortgage-backed securities into agency mortgage-backed securities. Asked when the Fed's reinvestment policy would end, views were very dispersed, ranging from the second quarter of 2017 to 2024 and beyond; several respondents noted that it was outside of their forecast horizon. A couple of respondents noted that the composition of the Board of Governors would be influential: "[President] Trump will pick as many as 5 Fed governors by the end of 2018."

INTEREST RATES When the survey was completed on December 1, 2016, the 10-year U.S. Treasury yield was 2.45 percent. The median survey forecasts for 10-year Treasury rates were: 2.30 percent for December 2016, 2.40 percent for March 2017, 2.50 percent for June 2016, 2.55 percent for September 2017 and 2.68 percent for December 2017.[13]

The majority of respondents (64 percent) expected the Treasury yield curve (Fed funds-to-10-year Treasury yield spread) to flatten by mid-2017, with 29 percent expecting the curve to steepen and the remainder expecting the curve to remain the same. Inflation/inflationary expectations was cited as the dominant factor impacting Treasury yields in the first half of 2017, followed by FOMC interest rate policy. One respondent noted that foreign bond yields could also affect long-term U.S. Treasury yields.

Half of survey respondents expected the TED (Treasury bill less LIBOR) spread to remain unchanged through mid-2017, while 30 percent expect the spread to widen and the remaining 20 percent expect the spread to narrow.

Half the respondents expect investment grade bond spreads to remain the same, with the balance split evenly between widening or narrowing. Responses were similar about the path of high yield bond spreads, with nearly 60 percent of the respondents expecting HY spreads to remain the same, a quarter expecting spreads to widen, and the balance expecting them to remain the same.

[13] The 10-year Treasury yield forecasts ranged from 2.00 percent to 2.50 percent for December 2016, from 2.15 percent to 2.68 percent for March 2017, from 2.20 percent to 2.85 percent for June 2017; from 2.25 percent to 3.05 percent in September 2017, and from 2.10 percent to 3.21 percent for December 2017.

Risks to Growth: Fiscal Stimulus, Deregulation and Tax Reform on the Upside; Protectionism and Restrictive Immigration on the Downside

Respondents were asked to rank factors by their potential impact on U.S. economic growth in the first half of 2017. Business confidence was considered the most important factor impacting U.S. economic growth, followed by U.S. fiscal policy and private credit market conditions. Respondents noted consumer strength and tariffs as additional factors potentially affecting U.S. economic growth.

Upside and downside risks to the growth forecasts were relatively uniform among respondents and focused on fiscal and trade policies. Fiscal stimulus, deregulation and tax reform were common themes among respondents on upside risks.

On the downside, protectionist trade policy was a leading cause for concern, as were uncertainty over fiscal and other policies, such as restrictive immigration.

Oil Prices[14]

Panelists placed a 12.5 percent chance on West Texas Intermediate (WTI) crude oil prices dropping to below $40 by end of the first half of 2017, a 42 percent chance of prices between $41 and $50 a barrel, a 37 percent chance of prices between $51 and $60, and the balance for prices rising to $61 or higher. Respondents estimated that the most likely scenario – oil prices remaining in the $41 and $50 per barrel range – would have no impact on economic growth, similar to the mid-year 2016 forecast. Only the two outer ranges were broadly predicted to have an impact on GDP growth: prices below $40 per barrel would raise GDP growth by 5 basis points (bps), while prices above $61 per barrel would lower growth by 10 bps.

Respondents estimated that WTI would settle at an equilibrium price of $65.00 per barrel three years from now, assuming continued moderate global growth.[15]

Impact of Presidential Election

While 94 percent of respondents agreed that the election of Donald Trump increased fiscal policy uncertainty, when asked about the potential impact on 2017 GDP estimates, nearly two-thirds (63 percent) of respondents estimated an upward impact of up to 25 bps, 19 percent estimated an upward impact of greater than 25 bps and 13 percent estimated a downward impact of up to 25 bps.

When asked about which policies have the greatest chance of being enacted, respondents noted corporate and personal tax policies, followed by infrastructure spending and restrictions on immigration. Respondents also considered the repeal of the Affordable Care Act, regulatory reform, repatriation, tariffs, and energy policy changes to be likely.

As for the future impact on GDP should the policies be enacted, personal tax policy, corporate tax policy and infrastructure policy would be expected to positively impact GDP growth, while trade policies and immigration policy were expected to negatively impact GDP growth. While over half of respondents noted fiscal stimulus, including infrastructure spending, as a potential positive for GDP growth, one respondent expressed skepticism, noting, "Infrastructure spending will likely have a hard time making it through Congress."

When asked if Trump's election changed the outlook over the direction of financial regulatory policy, respondents agreed unanimously. More than half of respondents (60 percent) expected the improved financial regulatory policy would raise GDP growth by up to 50 bps in 2017, if enacted, while a third of respondents expected no impact and the balance expected a negative impact of up to 50 bps. One respondent noted, "Regulation costs over $1 trillion a year. Eliminating and simplifying some of it would be the equivalent of a massive tax cut."

[14] OPEC's announcement of an agreement to cut oil production came at the very end of the survey period and may not be fully reflected in the forecasts.
[15] The range for estimates of the equilibrium oil price was $50 per barrel to $80 per barrel.

SIFMA ECONOMIC ADVISORY ROUNDTABLE FORECAST

	2016	2017
Real GDP	1.6	2.2
Real GDP (4Q – 4Q)	1.8	2.1
CPI	1.3	2.3
CPI (4Q – 4Q)	2.0	2.3
Core CPI	2.2	2.3
Core CPI (4Q – 4Q)	2.2	2.3
PCE deflator	1.1	1.9
PCE deflator (4Q – 4Q)	1.5	2.0
Core PCE deflator	1.7	1.8
Core PCE deflator (4Q – 4Q)	1.8	1.9
Personal Consumption	2.6	2.5
Nonresidential Fixed Investment	(0.4)	2.7
Housing Starts (millions)	1.2	1.3
Real State & Local Government Spending	0.9	1.0
Current Account Deficit ($ billions)	475.0	506.0
New Home Sales (millions of units)	0.6	0.6
Existing Home Sales (millions of units)	5.5	5.6
Nonfarm Payroll Employment (change in millions)	2.2	1.9
Unemployment Rate (calendar year average)	4.9	4.7
Federal Budget (FY, $ billions)	(587.0)	(650.0)

Quarter-to-Quarter % Changes in Annual Rates

	2016	2017			
	IV	I	II	III	IV
Real GDP	2.2	2.0	2.2	2.3	2.2
CPI	3.2	2.2	2.2	2.3	2.3
Core CPI	2.1	2.4	2.3	2.4	2.3
PCE deflator	2.4	1.9	1.9	2.0	2.1
Core PCE deflator	1.8	1.9	1.9	1.9	1.9
Personal Consumption	2.5	2.4	2.4	2.5	2.5
Nonresidential Fixed Investment	2.3	2.3	2.8	3.2	3.4

Interest Rates (monthly average %)

	Dec. '16	Mar. '17	Jun. '17	Sep. '17	Dec. '17
Fed Funds	0.63	0.63	0.88	0.88	1.13
2 Year Treasury Note	1.10	1.15	1.28	1.38	1.50
10 Year Treasury Note	2.30	2.40	2.50	2.55	2.68
30 Year Fixed-Rate Home Mortgages	3.98	4.00	4.15	4.18	4.23

Exchange Rates (monthly average)

	Dec. '16	Mar. '17	Jun. '17	Sep. '17	Dec. '17
Yen/Dollar	110.0	112.0	113.5	115.0	115.0
Dollar/Euro	1.07	1.05	1.05	1.04	1.05
Dollar/GBP	1.23	1.20	1.18	1.21	1.21

ECONOMIC ADVISORY ROUNDTABLE

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