Responses to Survey of Market Participants

Markets Group, Federal Reserve Bank of New York

December 2015

Responses to Survey of Market Participants
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For most questions, median responses across participants, along with the 25th and 75th percentiles, are reported. For questions that ask respondents to give a probability distribution, the average response across participants for each potential outcome is reported.[1] Brief summaries of the comments received in free response form are also provided.

Responses were received from 29 market participants. ***Except where noted, all 29 market participants responded to each question.*** *In some cases, participants may not have provided forecasts extending to the same time horizon as requested in the survey. In these instances, the number of respondents who answered all parts of the question is indicated.*

Monetary Policy Expectations

1. a) Provide below your expectations for changes, if any, to the language referencing each of the following topics in the December FOMC statement. Limit your responses to changes you consider most likely.

Current economic conditions and the economic outlook:
(27 responses)

Some respondents expected the Committee to upgrade its assessment of the labor market, while several reported that they expected few significant changes to the Committee's assessment of current economic conditions and the outlook.

Communication on the Committee's policy of reinvesting principal payments on Treasury and agency securities:
(25 responses)

Most respondents expected no change in the Committee's communication on its policy of reinvesting principal payments on Treasury and agency securities.

Communication on the expected path of policy rates and forward guidance on the target federal funds rate:
(25 responses)

Some respondents expected that the Committee would emphasize the likely gradual pace of expected policy tightening. Several respondents also suggested that the Committee would indicate that further increases in the target range would be data dependent.

Other:
(10 responses)

Respondents did not provide substantial commentary in this section.

[1] Answers may not sum to 100 percent due to rounding.

b) What are your expectations for the medians of FOMC participants' economic projections in the Summary of Economic Projections (SEP)?
(27 responses)

Some respondents reported that they expected no significant changes to the medians of FOMC participants' economic projections in the SEP, while several other respondents expected some modest downward revisions to FOMC participants' projections for the unemployment rate, change in real GDP, as well as headline and/or core PCE inflation.

c) What are your expectations for the medians of FOMC participants' year-end target federal funds rate projections in the Summary of Economic Projections (SEP)?
(28 complete responses)

	Federal Funds Rate				
	2015	2016	2017	2018	Longer Run
25th Pctl	0.38%	1.25%	2.38%	3.20%	3.25%
Median	0.38%	1.38%	2.40%	3.38%	3.44%
75th Pctl	0.40%	1.40%	2.50%	3.40%	3.50%

Please explain the most relevant factors underlying your expectations:
(27 responses)

Several respondents suggested that the medians of FOMC participants' projections for the federal funds rate at year-ends 2016-2018, as well as for the longer-run federal funds rate, could shift modestly downward. In explaining their views, several pointed to recent Fed communication emphasizing a likely gradual expected pace of policy tightening and that the equilibrium real fed funds rate is likely to remain at historically low levels for some time. Additionally, several respondents suggested that increased downside risks to future U.S. growth and inflation would lead some FOMC participants' to lower their target rate projections.

d) What are your expectations for the Chair's post-FOMC conference?
(28 responses)

Many respondents expected Chair Yellen's press conference remarks to emphasize that the pace of additional increases in the target range will likely be gradual, while some respondents also suggested that the Chair would reiterate that subsequent increases would be data dependent. Additionally, several respondents expected the Chair to underscore that the Committee's decision to raise the target range reflects its confidence in the current state of the U.S. economy.

e) How do you expect the December FOMC statement to influence market perceptions of the stance of monetary policy, if at all? (1 = less accommodative, 3 = neutral, 5 = more accommodative)

	Perceived Stance of Monetary Policy
25th Pctl	2
Median	2
75th Pctl	3

Please explain:
(27 responses)

Several respondents expected that an increase in the target range for the federal funds rate at the December FOMC meeting would be interpreted by market participants as reflecting the Committee's shift toward a less accommodative *policy stance. In contrast, several other respondents suggested that an increase in the target range would be perceived as neutral, given that it would likely be offset by communication conveying a likely expected gradual pace of additional policy tightening.*

2. a) Of the possible outcomes below, provide the percent chance you attach to the timing of the first increase in the federal funds target rate or range. Also, provide your estimate for the most likely meeting for the first increase.

	Dec. 15-16	Jan. 26-27	Mar. 15-16	Apr. 26-27	Jun. 14-15	Jul. 26-27	Sep. 20-21	≥ Nov. 1-2
Average	90%	4%	4%	0%	1%	0%	0%	0%

	Most Likely Meeting of First Increase in Target Rate or Range
25th Pctl	December 2015
Median	December 2015
75th Pctl	December 2015

b) Provide the percent chance you attach to the target federal funds rate or range not returning to the zero lower bound during the 2 years following liftoff.

	Probability of Not Returning to ZLB within 2 Years
25th Pctl	67%
Median	75%
75th Pctl	80%

Conditional on the target not returning to the zero lower bound, provide the percent chance you attach to the net change in the target rate or range in each of the two years following liftoff.

First Year Following Liftoff

	0 - 50 basis points	51 - 100 basis points	101 - 150 basis points	151 - 200 basis points	>200 basis points
Average	25%	50%	20%	4%	1%

Second Year Following Liftoff

	0 - 50 basis points	51 - 100 basis points	101 - 150 basis points	151 - 200 basis points	>200 basis points
Average	18%	40%	29%	11%	2%

c) Provide your estimate of the most likely outcome (i.e., the mode) for the target federal funds rate or range, as applicable, immediately following the FOMC meetings and at the end of each quarter or half-year period below. If you expect a range, please provide both the top and bottom of the range in the specified fields below. If you expect a target rate, provide your response in the "Target rate" field only.

Top of Target Range

	Dec. 15-16 2015	Jan. 26-27 2016	Mar. 15-16 2016	Apr. 26-27 2016	Jun. 14-15 2016	Jul. 26-27 2016	Sep. 20-21 2016
25th Pctl	0.50%	0.50%	0.75%	0.75%	0.75%	0.75%	1.00%
Median	0.50%	0.50%	0.75%	0.75%	0.75%	0.75%	1.00%
75th Pctl	0.50%	0.50%	0.75%	0.75%	1.00%	1.00%	1.25%
# of Responses	26	26	26	25	24	24	24

	2016 Q4	2017 Q1	2017 Q2	2017 Q3	2017 Q4	2018 H1	2018 H2
25th Pctl	1.00%	1.25%	1.50%	1.75%	2.00%	2.13%	2.50%
Median	1.25%	1.50%	1.75%	2.00%	2.00%	2.50%	2.63%
75th Pctl	1.38%	1.63%	2.00%	2.00%	2.25%	2.75%	3.25%
# of Responses	24	24	23	21	21	16	16

Bottom of Target Range

	Dec. 15-16 2015	Jan. 26-27 2016	Mar. 15-16 2016	Apr. 26-27 2016	Jun. 14-15 2016	Jul. 26-27 2016	Sep. 20-21 2016
25th Pctl	0.25%	0.25%	0.50%	0.50%	0.50%	0.50%	0.75%
Median	0.25%	0.25%	0.50%	0.50%	0.50%	0.50%	0.75%
75th Pctl	0.25%	0.25%	0.50%	0.50%	0.75%	0.75%	1.00%
# of Responses	26	26	26	25	24	24	24

	2016 Q4	2017 Q1	2017 Q2	2017 Q3	2017 Q4	2018 H1	2018 H2
25th Pctl	0.75%	1.00%	1.25%	1.50%	1.75%	1.88%	2.25%
Median	1.00%	1.25%	1.50%	1.75%	1.75%	2.25%	2.38%
75th Pctl	1.13%	1.38%	1.75%	1.75%	2.00%	2.50%	3.00%
# of Responses	24	24	23	21	21	16	16

Target Rate

	Dec. 15-16 2015	Jan. 26-27 2016	Mar. 15-16 2016	Apr. 26-27 2016	Jun. 14-15 2016	Jul. 26-27 2016	Sep. 20-21 2016
25th Pctl	0.50%	0.50%	0.50%	0.63%	0.75%	1.00%	1.00%
Median	0.50%	0.50%	0.75%	0.75%	1.00%	1.00%	1.25%
75th Pctl	0.50%	0.50%	0.75%	0.75%	1.00%	1.00%	1.25%
# of Responses	3	3	3	4	5	5	5

	2016 Q4	2017 Q1	2017 Q2	2017 Q3	2017 Q4	2018 H1	2018 H2
25th Pctl	1.25%	1.50%	1.50%	1.75%	2.00%	2.50%	2.50%
Median	1.25%	1.50%	1.63%	1.88%	2.00%	2.50%	3.00%
75th Pctl	1.50%	1.75%	2.00%	2.13%	2.50%	3.00%	3.25%
# of Responses	5	5	6	8	8	13	13

d) In addition, provide your estimate of the longer-run target federal funds rate and your expectation for the average federal funds rate over the next 10 years.

	Longer Run	10-yr Average FF Rate
25th Pctl	2.75%	2.00%
Median	3.00%	2.50%
75th Pctl	3.50%	2.75%

e) Of the possible outcomes below, please indicate the percent chance you attach to the target federal funds rate or range falling in each of the following ranges at the end of 2016, 2017 and 2018. If you expect a target range please use the midpoint of the range in providing your response.

Year-End 2016	0.00-0.25%	0.26-0.50%	0.51-1.00%	1.01-1.50%	1.51-2.00%	2.01-2.50%	≥2.51%
Average	6%	11%	32%	35%	12%	3%	1%

Year-End 2017	≤1.00%	1.01-1.50%	1.51-2.00%	2.01-2.50%	2.51-3.00%	3.01-3.50%	≥3.51%
Average	13%	18%	31%	22%	10%	4%	2%

Year-End 2018	≤1.50%	1.51-2.00%	2.01-2.50%	2.51-3.00%	3.01-3.50%	3.51-4.00%	≥4.01%
Average	18%	18%	22%	18%	14%	7%	3%

If you changed your responses to parts a and/or c since the last policy survey, please explain the factors that motivated you to make the change(s):
(26 responses)

Several respondents noted that events over the intermeeting period, including stronger-than-expected labor market data, Fed communication perceived as reinforcing expectations for a December liftoff, as well as reduced uncertainty over the global macroeconomic outlook, led them to revise substantially higher the probability they assigned to liftoff occurring at the December meeting. Relatedly, several respondents indicated that they adjusted other aspects of their responses to reflect a higher perceived likelihood of a rate increase at the December meeting. Lastly, several respondents noted few significant changes to their responses.

3. a) Of the possible outcomes below, provide the percent chance you attach to the 10-year Treasury yield falling in each of the following ranges at the end of 2015 and 2016.

Year-End 2015

	≤1.50%	1.51-2.00%	2.01-2.50%	2.51-3.00%	3.01-3.50%	3.51-4.00%	>4.00%
Average	4%	18%	54%	19%	4%	1%	0%

Year-End 2016

	≤2.50%	2.51-3.00%	3.01-3.50%	3.51-4.00%	4.01-4.50%	4.51-5.00%	>5.00%
Average	30%	36%	22%	8%	3%	1%	1%

If you changed your expectations since the last policy survey on September 8, please explain the factors that motivated you to make the change(s).
(26 responses)

Several respondents indicated that they adjusted higher their expectation for the 10-year Treasury yield at year-end 2015 to reflect higher market rates, and several noted reduced uncertainty in their response given the increased proximity to the forecast horizon. Several respondents indicated that they made few significant changes to their responses since the last policy survey on October 19.

b) Swap spreads are currently at historically low levels, having declined by around 20 basis points across maturities since early August. Please rate the importance of the following factors that may explain the recent narrowing in swap spreads (1 = not very important, 5 = very important).
(28 responses)

	Increased net corporate issuance	Foreign central bank selling of Treasury securities	Increased balance sheet costs for cash products	Change in credit component due to mandated central clearing	Other (8 responses)
Average	3.0	3.7	4.6	2.3	3.1

If "Other", please explain
(6 responses)

Respondents did not provide substantial commentary in this section.

Please explain your response, including any assumptions or underlying views
(28 responses)

Several respondents highlighted the importance of increased balance sheet costs for cash products as contributing to the recent narrowing in swap spreads, while several discussed increased net corporate issuance and foreign central bank selling of Treasury securities as important factors. Additionally, several respondents commented that reduced dealer balance sheet capacity likely exacerbated moves catalyzed by more proximate factors, such as foreign central bank selling of Treasury securities and increased net corporate issuance.

4. a) **Provide the percent chance you attach to the unemployment rate falling within the following ranges at the time of the first increase in the target federal funds rate or range.**

	< 4.5%	4.5 - 4.9%	5.0 - 5.4%	5.5 - 5.9%	≥ 6.0%
Average	2%	22%	76%	0%	0%

b) **Provide the percent chance you attach to inflation between 1 and 2 years ahead falling within the following ranges at the time of the first increase in the target federal funds rate or range.**

	< 1.25%	1.25 - 1.74%	1.75 - 2.24%	2.25 - 2.74%	≥ 2.75%
Average	12%	31%	44%	10%	3%

c) **Provide your estimate for the most likely value of the following indicators at the time of the first increase in the target federal funds rate or range. When specifying values below, where appropriate, provide your estimate consistent with the last published value prior to the announcement of liftoff. For reference, the level of total U.S. employees on nonfarm payrolls for November, seasonally adjusted, was 142.9 million. (24 complete responses)**

	Unemployment Rate	Labor Force Participation Rate	Total NFP*	12-Month Change in Average Hourly Earnings	Core 12-Month PCE Inflation	Headline 12-Month PCE Inflation	Inflation Between 1 and 2 Years Ahead
25th Pctl	5.0%	62.5%	142.9	2.3%	1.3%	0.2%	1.7%
Median	5.0%	62.5%	142.9	2.3%	1.3%	0.2%	1.8%
75th Pctl	5.0%	62.5%	142.9	2.3%	1.3%	0.2%	2.0%

**In millions*

d) **Provide your forecast for the expected levels of the following indicators at the time periods provided below. If you expect a target range, please enter the range. If you do not believe a particular tool will be used during one or more of the time periods below, please enter "N/A". If you do not believe a cap on the O/N RRP will be employed at a particular time period, please write "No cap".* (17 complete responses)**

One Quarter Prior to Liftoff

	IOER Rate	Target Federal Funds Rate or Range	Effective Federal Funds Rate	O/N RRP Rate	Overnight Treasury GCF Repo Rate	Overnight Treasury tri-party repo rate	3-month LIBOR rate	3-month T-bill Rate	O/N RRP Demand ($ bn)	O/N RRP Cap ($ bn)**
25th Pctl	0.25%	0.13%	0.12%	0.05%	0.17%	0.07%	0.32%	0.03%	125	300
Median	0.25%	0.13%	0.13%	0.05%	0.20%	0.13%	0.34%	0.10%	150	300
75th Pctl	0.25%	0.13%	0.13%	0.10%	0.25%	0.20%	0.44%	0.20%	200	300

† 1 respondent expected no O/N RRP cap.

Immediately Following Liftoff

	IOER Rate	Target Federal Funds Rate or Range	Effective Federal Funds Rate	O/N RRP Rate	Overnight Treasury GCF Repo Rate	Overnight Treasury tri-party repo rate	3-month LIBOR rate	3-month T-bill Rate	O/N RRP Demand ($ bn)	O/N RRP Cap ($ bn)**
25th Pctl	0.50%	0.38%	0.32%	0.25%	0.40%	0.29%	0.53%	0.24%	355	500
Median	0.50%	0.38%	0.35%	0.25%	0.45%	0.31%	0.55%	0.26%	562.5	600
75th Pctl	0.50%	0.38%	0.38%	0.25%	0.48%	0.38%	0.60%	0.30%	750	700

† 15 respondents expected no O/N RRP cap.

1 Year Following Liftoff

	IOER Rate	Target Federal Funds Rate or Range	Effective Federal Funds Rate	O/N RRP Rate	Overnight Treasury GCF Repo Rate	Overnight Treasury tri-party repo rate	3-month LIBOR rate	3-month T-bill Rate	O/N RRP Demand ($ bn)	O/N RRP Cap ($ bn)**
25th Pctl	1.25%	1.13%	1.10%	1.00%	1.15%	1.03%	1.28%	0.98%	250	300
Median	1.25%	1.13%	1.13%	1.00%	1.20%	1.10%	1.38%	1.06%	425	400
75th Pctl	1.50%	1.38%	1.37%	1.25%	1.45%	1.30%	1.53%	1.27%	775	750

† 7 respondents expected no O/N RRP cap.

3 Years Following Liftoff

	IOER Rate	Target Federal Funds Rate or Range	Effective Federal Funds Rate	O/N RRP Rate	Overnight Treasury GCF Repo Rate	Overnight Treasury tri-party repo rate	3-month LIBOR rate	3-month T-bill Rate	O/N RRP Demand ($ bn)	O/N RRP Cap ($ bn)**
25th Pctl	2.50%	2.38%	2.38%	2.25%	2.45%	2.30%	2.50%	2.10%	200	300
Median	3.00%	2.81%	2.87%	2.75%	2.90%	2.78%	3.05%	2.60%	300	375
75th Pctl	3.25%	3.25%	3.25%	3.16%	3.25%	3.18%	3.40%	3.10%	500	500

† 6 respondents expected no O/N RRP cap.

**For participants that submitted ranges, midpoints of the ranges are used.*
***Only participants who forecasted a cap were included in the calculation for the expected size of the O/N RRP cap.*

Please explain any changes to your responses since the policy survey on October 19.
(18 responses)

Several respondents noted that changes to their responses since the last policy survey primarily reflected changes in their expectations for the path of the target rate/range rather than for the mechanics of policy normalization. Several respondents cited few significant changes to their expectations for the mechanics of normalization and/or the relative levels of money market rates at various periods relative to liftoff.

e) Please provide the percent chance you attach to the average effective federal funds rate, excluding month- or quarter-end dates, falling within the following subsets relative to the 25 basis point target range in the first month immediately following liftoff.
(25 responses)

	Below the Range	Bottom 8 Basis Points of Range	Middle 9 Basis Points of Range	Top 8 Basis Points of Range	Above the Range
Average	7%	33%	43%	15%	2%

Please explain which factor or factors were most relevant in formulating your expectations and any assumptions made.
(19 responses)

Several respondents highlighted various risks that could lead the effective federal funds rate to trade toward the lower end of the target range in the first month immediately following liftoff.

5. a) **Provide your estimate of the most likely quarter and year during which the FOMC will first cease reinvesting some or all payments of principal on Treasuries and/or agency debt and MBS. In addition, please provide your expectation for the timing, in months, relative to the first increase in the target rate or range. If you do not expect the FOMC to cease reinvestments for either or both asset classes during the process of policy normalization, please select "N/A". Please ensure your signs are correct.**
(24 responses)

	Most Likely Quarter and Year of End to Reinvestments	
	Treasuries	Agency Debt and MBS
25th Pctl	Q3 2016	Q3 2016
Median	Q4 2016	Q4 2016
75th Pctl	Q1 2017	Q1 2017

	Number of Months Relative to Liftoff	
	Treasuries	Agency Debt and MBS
25th Pctl	9	9
Median	12	12
75th Pctl	13	15

b) **In its Policy Normalization Principles and Plans, the Committee indicated that it "expects to cease or commence phasing out reinvestments" after liftoff. For Treasuries and agency debt and MBS, please indicate the percent chance you attach to the Committee during the process of policy normalization ceasing its reinvestments all at once, phasing out its reinvestments over time, or not changing its reinvestments.**
(24 responses)

	Treasuries		
	No Change to Reinvestments	**Reinvestments Ceased All at Once**	**Reinvestments Phased Out Over Time**
Average	13%	18%	69%

	Agency Debt and MBS		
	No Change to Reinvestments	**Reinvestments Ceased All at Once**	**Reinvestments Phased Out Over Time**
Average	11%	19%	70%

c) **If you placed a non-zero probability on reinvestments being phased out over time, please indicate the number of months over which you expect this to occur.**
(24 responses)

	Anticipated Duration of Phase-Out (in Months)	
	Treasuries	Agency Debt and MBS
25th Pctl	6	6
Median	12	9
75th Pctl	12	12

Please explain the factors behind any change to your expectations in parts a, b, and/or c since the policy survey on October 19.
(15 responses)

Several respondents noted that they lengthened their expectation for the time between the first increase in the target range and a change in the Committee's policy on reinvestments, citing greater conviction that balance sheet normalization will be gradual. Several respondents indicated that they made few significant changes to their responses since the last policy survey on October 19.

6. a) For the outcomes below, provide the percent chance you attach to the annual average CPI inflation rate from December 1, 2015 - November 30, 2020. Please also provide your point estimate for the most likely outcome.
(27 responses)

	≤1.00%	1.01-1.50%	1.51-2.00%	2.01-2.50%	2.51-3.0%	≥3.01%
Average	7%	20%	37%	25%	8%	3%

Point estimate for most likely outcome:

	Most Likely Outcome
25th Pctl	1.75%
Median	1.97%
75th Pctl	2.00%

b) For the outcomes below, provide the percent chance you attach to the annual average CPI inflation rate from December 1, 2020 - November 30, 2025. Please also provide your point estimate for the most likely outcome.
(27 responses)

	≤1.00%	1.01-1.50%	1.51-2.00%	2.01-2.50%	2.51-3.00%	≥3.01%
Average	4%	13%	30%	32%	14%	6%

Point estimate for most likely outcome:
(27 responses)

	Most Likely Outcome
25th Pctl	2.00%
Median	2.03%
75th Pctl	2.28%

Appendix: Updates to the Survey

Updated as of December 18, 2015

Following the December FOMC Meeting (December 15-16), market participants were asked to update their responses to questions 2b, 2c, 2e, 5a, 5b, and 5c.

Updates were received from 27 market participants. ***Except where noted, all 27 market participants responded to each question.*** *In some cases, participants may not have provided forecasts extending to the same time horizon as requested in the survey. In these instances, the number of respondents who answered all parts of the question is indicated.*

2. b) Provide the percent chance you attach to the target federal funds rate or range not returning to the zero lower bound during the 2 years following liftoff.

	Probability of Not Returning to ZLB within 2 Years
25th Pctl	65%
Median	75%
75th Pctl	80%

Conditional on the target not returning to the zero lower bound, provide the percent chance you attach to the net change in the target rate or range in each of the two years following liftoff.

First Year Following Liftoff

	0 - 50 basis points	**51 - 100 basis points**	**101 - 150 basis points**	**151 - 200 basis points**	**>200 basis points**
Average	26%	52%	18%	3%	1%

Second Year Following Liftoff

	0 - 50 basis points	**51 - 100 basis points**	**101 - 150 basis points**	**151 - 200 basis points**	**>200 basis points**
Average	18%	40%	29%	10%	3%

c) **Provide your estimate of the most likely outcome (i.e., the mode) for the target federal funds rate or range, as applicable, immediately following the FOMC meetings and at the end of each quarter or half-year period below. If you expect a range, please provide both the top and bottom of the range in the specified fields below. If you expect a target rate, provide your response in the "Target rate" field only.**

Top of Target Range

	Jan. 26-27 2016	Mar. 15-16 2016	Apr. 26-27 2016	Jun. 14-15 2016	Jul. 26-27 2016	Sep. 20-21 2016	2016 Q4
25th Pctl	0.50%	0.63%	0.75%	0.75%	0.75%	1.00%	1.00%
Median	0.50%	0.75%	0.75%	0.75%	0.75%	1.00%	1.25%
75th Pctl	0.50%	0.75%	0.75%	1.00%	1.00%	1.25%	1.25%
# of Responses	22	22	22	22	22	22	22

	2017 Q1	2017 Q2	2017 Q3	2017 Q4	2018 H1	2018 H2
25th Pctl	1.25%	1.50%	1.75%	2.00%	2.00%	2.50%
Median	1.50%	1.75%	2.00%	2.00%	2.50%	2.50%
75th Pctl	1.50%	1.75%	2.00%	2.25%	2.75%	3.25%
# of Responses	21	20	20	20	18	18

Bottom of Target Range

	Jan. 26-27 2016	Mar. 15-16 2016	Apr. 26-27 2016	Jun. 14-15 2016	Jul. 26-27 2016	Sep. 20-21 2016	2016 Q4
25th Pctl	0.25%	0.38%	0.50%	0.50%	0.50%	0.75%	0.75%
Median	0.25%	0.50%	0.50%	0.50%	0.50%	0.75%	1.00%
75th Pctl	0.25%	0.50%	0.50%	0.75%	0.75%	1.00%	1.00%
# of Responses	22	22	22	22	22	22	22

	2017 Q1	2017 Q2	2017 Q3	2017 Q4	2018 H1	2018 H2
25th Pctl	1.00%	1.25%	1.50%	1.75%	1.75%	2.25%
Median	1.25%	1.50%	1.75%	1.75%	2.25%	2.25%
75th Pctl	1.25%	1.50%	1.75%	2.00%	2.50%	3.00%
# of Responses	21	20	20	20	18	18

Target Rate

	Jan. 26-27 2016	Mar. 15-16 2016	Apr. 26-27 2016	Jun. 14-15 2016	Jul. 26-27 2016	Sep. 20-21 2016	2016 Q4
25th Pctl	0.50%	0.50%	0.50%	0.75%	0.88%	0.88%	1.25%
Median	0.50%	0.75%	0.75%	0.88%	1.00%	1.13%	1.25%
75th Pctl	0.50%	0.75%	0.75%	1.00%	1.00%	1.25%	1.50%
# of Responses	0	0	0	0	0	0	0

	2017 Q1	2017 Q2	2017 Q3	2017 Q4	2018 H1	2018 H2
25th Pctl	1.50%	1.50%	1.75%	2.00%	2.38%	2.50%
Median	1.50%	1.63%	1.88%	2.00%	2.63%	3.00%
75th Pctl	1.75%	2.00%	2.13%	2.50%	3.00%	3.25%
# of Responses	1	2	2	2	3	3

e) **Of the possible outcomes below, please indicate the percent chance you attach to the target federal funds rate or range falling in each of the following ranges at the end of 2016, 2017 and 2018. If you expect a target range please use the midpoint of the range in providing your response.**

Year-End 2016

	0.00-0.25%	0.26-0.50%	0.51-1.00%	1.01-1.50%	1.51-2.00%	2.01-2.50%	≥2.51%
Average	7%	12%	33%	34%	11%	3%	1%

Year-End 2017

	≤1.00%	1.01-1.50%	1.51-2.00%	2.01-2.50%	2.51-3.00%	3.01-3.50%	≥3.51%
Average	13%	18%	32%	21%	9%	4%	2%

Year-End 2018

	≤1.50%	1.51-2.00%	2.01-2.50%	2.51-3.00%	3.01-3.50%	3.51-4.00%	≥4.01%
Average	19%	18%	22%	17%	14%	7%	3%

If you changed your responses to parts a and/or c since the policy survey on July 20, please explain the factors that motivated you to make the change(s):
(12 responses)

Several respondents reported that they made few significant changes to their responses.

5. a) **Provide your estimate of the most likely quarter and year during which the FOMC will first cease reinvesting some or all payments of principal on Treasuries and/or agency debt and MBS. In addition, please provide your expectation for the timing, in months, relative to the first increase in the target rate or range. If you do not expect the FOMC to cease reinvestments for either or both asset classes during the process of policy normalization, please select "N/A". Please ensure your signs are correct.**
(24 responses)

	Most Likely Quarter and Year of End to Reinvestments	
	Treasuries	Agency Debt and MBS
25th Pctl	Q3/Q4 2016	Q4 2016
Median	Q1 2017	Q1 2017
75th Pctl	Q2 2017	Q2 2017

	Number of Months Relative to Liftoff	
	Treasuries	Agency Debt and MBS
25th Pctl	11	12
Median	14	15
75th Pctl	18	17

b) In its Policy Normalization Principles and Plans, the Committee indicated that it "expects to cease or commence phasing out reinvestments" after liftoff. For Treasuries and agency debt and MBS, please indicate the percent chance you attach to the Committee during the process of policy normalization ceasing its reinvestments all at once, phasing out its reinvestments over time, or not changing its reinvestments.
(23 responses)

	Treasuries		
	No Change to Reinvestments	**Reinvestments Ceased All at Once**	**Reinvestments Phased Out Over Time**
Average	14%	17%	69%

	Agency Debt and MBS		
	No Change to Reinvestments	**Reinvestments Ceased All at Once**	**Reinvestments Phased Out Over Time**
Average	11%	18%	70%

c) If you placed a non-zero probability on reinvestments being phased out over time, please indicate the number of months over which you expect this to occur.
(22 responses)

	Anticipated Duration of Phase-Out (in Months)	
	Treasuries	Agency Debt and MBS
25th Pctl	6	6
Median	12	11
75th Pctl	12	12

Please explain the factors behind any change to your expectations in parts a, b, and/or c since the policy survey on October 19.
(10 responses)

Several respondents explained that language in the December FOMC statement indicating that the Committee anticipates maintaining its existing policy of reinvesting Treasury and agency securities “until normalization of the level of the federal funds rate is well under way” led them to lengthen their expectation for the most likely timing between the first increase in the target range and a change to the Committee’s reinvestment policy.