Responses to Survey of Market Participants

Markets Group, Federal Reserve Bank of New York

October 2015

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For most questions, median responses across respondents, along with the 25th and 75th percentiles, are reported. For questions that ask respondents to give a probability distribution, the average response across respondents 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 respondents responded to each question.*** *In some cases, respondents 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 October FOMC statement. Limit your responses to changes you consider most likely.

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

Several respondents expected the October FOMC statement to reflect a modest downgrade to the Committee's assessment of current economic conditions, while several respondents expected the statement to acknowledge the recent slowdown in the pace of job gains. Additionally, several respondents expected no significant changes to the October FOMC statement.

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

All respondents that submitted responses to this question expected no change to the Committee's 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:
(24 responses)

Many respondents expected no change in the Committee's communication on the expected path of policy rates and forward guidance on the target federal funds rate.

Other:
(8 responses)

Respondents did not provide substantial commentary in this section.

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

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

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

Please explain:
(26 responses)

In explaining their responses, some respondents noted their expectation that the Committee would leave the target rate for the federal funds rate unchanged, as well as their expectation that there would be few significant changes to the FOMC statement.

2. **How would you grade the Federal Reserve System's communication with the markets and with the public since the policy survey on September 8? Please provide a rating between 1 and 5, with 1 indicating ineffectiveness and 5 indicating effectiveness.**

	Fed Communication Grade Number of Respondents:
1 - Ineffective	7
2	14
3	6
4	2
5 - Effective	0

Please explain:
(27 responses)

Some respondents cited some difficulty in interpreting the variety of views expressed by Fed speakers since the policy survey on September 8. Additionally, several respondents noted that recent Fed communications contributed to a lack of clarity regarding the appropriate timing of liftoff as well as the economic conditions necessary to justify an increase in the target range.

3. 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.**
(26 complete responses)

	Oct. 27-28	Dec. 15-16	Jan. 26-27	Mar. 15-16	Apr. 26-27	Jun. 14-15	Jul. 26-27	≥ Sep. 20-21
Average	4%	33%	11%	26%	6%	10%	3%	6%

	Most Likely Meeting of First Increase in Target Rate or Range
25th Pctl	December 2015
Median	December 2015
75th Pctl	March 2016

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	31%	46%	16%	5%	2%

	Second Year Following Liftoff				
	0 - 50 basis points	**51 - 100 basis points**	**101 - 150 basis points**	**151 - 200 basis points**	**>200 basis points**
Average	20%	39%	27%	11%	3%

Please rate the importance of the following factors in determining your assessment of the probability of returning to the zero lower bound during the 2 years following liftoff, if applicable (5 = very important, 1 = not important).
(28 responses)

	Adverse future shocks to the U.S. economy	Adverse future shocks to foreign economies	Premature increase in target rate or range	Adverse future changes in financial stability	Other (4 responses)
Average	4.5	3.3	2.5	3.2	3.3

If "Other", please explain
(5 responses)

Respondents did not provide substantial commentary in this section.

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.**
(27 complete responses)

Top of Target Range

	Oct. 27-28 2015	Dec. 15-16 2015	Jan. 26-27 2016	Mar. 15-16 2016	Apr. 26-27 2016	Jun. 14-15 2016	Jul. 26-27 2016
25th Pctl	0.25%	0.25%	0.25%	0.50%	0.50%	0.75%	0.75%
Median	0.25%	0.50%	0.50%	0.50%	0.50%	0.75%	0.75%
75th Pctl	0.25%	0.50%	0.50%	0.75%	0.75%	0.75%	1.00%
# of Responses	24	24	24	24	23	23	23

	2016 Q3	2016 Q4	2017 Q1	2017 Q2	2017 H2	2018 H1	2018 H2
25th Pctl	0.75%	1.00%	1.00%	1.25%	1.38%	1.50%	2.00%
Median	1.00%	1.00%	1.25%	1.63%	2.00%	2.25%	2.50%
75th Pctl	1.00%	1.25%	1.50%	1.75%	2.25%	2.75%	3.25%
# of Responses	23	23	23	22	20	15	15

Bottom of Target Range

	Oct. 27-28 2015	Dec. 15-16 2015	Jan. 26-27 2016	Mar. 15-16 2016	Apr. 26-27 2016	Jun. 14-15 2016	Jul. 26-27 2016
25th Pctl	0.00%	0.00%	0.00%	0.25%	0.25%	0.50%	0.50%
Median	0.00%	0.25%	0.25%	0.25%	0.25%	0.50%	0.50%
75th Pctl	0.00%	0.25%	0.25%	0.50%	0.50%	0.50%	0.75%
# of Responses	24	24	24	24	23	23	23

	2016 Q3	2016 Q4	2017 Q1	2017 Q2	2017 H2	2018 H1	2018 H2
25th Pctl	0.50%	0.75%	0.75%	1.00%	1.13%	1.25%	1.75%
Median	0.75%	0.75%	1.00%	1.25%	1.75%	2.00%	2.25%
75th Pctl	0.75%	1.00%	1.25%	1.50%	2.00%	2.50%	3.00%
# of Responses	23	23	23	22	20	15	15

Target Rate

	Oct. 27-28 2015	Dec. 15-16 2015	Jan. 26-27 2016	Mar. 15-16 2016	Apr. 26-27 2016	Jun. 14-15 2016	Jul. 26-27 2016
25th Pctl	0.25%	0.25%	0.25%	0.50%	0.50%	0.63%	0.75%
Median	0.25%	0.50%	0.50%	0.50%	0.50%	0.75%	0.75%
75th Pctl	0.25%	0.50%	0.50%	0.50%	0.63%	0.88%	0.88%
# of Responses	3	3	3	3	4	4	4

	2016 Q3	2016 Q4	2017 Q1	2017 Q2	2017 H2	2018 H1	2018 H2
25th Pctl	0.88%	1.13%	1.25%	1.50%	1.75%	2.13%	2.13%
Median	1.00%	1.25%	1.50%	1.75%	2.00%	2.38%	2.75%
75th Pctl	1.13%	1.50%	1.75%	1.75%	2.25%	3.00%	3.25%
# of Responses	4	4	4	5	7	12	12

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	3.25%	2.50%
75th Pctl	3.50%	2.71%

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 2015, 2016, 2017 and 2018. If you expect a target range please use the midpoint of the range in providing your response.

Year-End 2015

	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	59%	38%	2%	0%	0%	0%	0%

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	9%	17%	36%	26%	9%	2%	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	19%	25%	25%	19%	7%	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	24%	20%	21%	15%	11%	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):
(24 responses)

Several respondents noted that recent weaker-than-expected U.S. economic data could lead to a delay in liftoff and/or a more gradual pace of rate hikes, while several respondents also highlighted ongoing uncertainty related to the global growth outlook. Furthermore, several respondents pointed to recent Fed communications as suggesting an increased likelihood of a delay in liftoff and/or more gradual tightening in short-term interest rates. Lastly, several respondents cited persistent low levels of realized inflation as well as recent declines in market-based measures of inflation compensation as motivating the change in their responses.

f) In a March speech, Chair Yellen indicated that the "equilibrium real federal funds rate, the real rate consistent with the economy achieving maximum employment and price stability in the medium term, is currently quite low by historical standards." Conditioned on your expectations for the economy, what is your forecast for the level of the equilibrium real federal funds rate at each of the time periods below? Please also provide your estimate of the current level of the equilibrium real federal funds rate.

(27 responses)

	Current Level	Year-end 2016	Year-end 2017	Year-end 2018
25th Pctl	0.00%	0.00%	0.50%	1.00%
Median	0.25%	0.63%	1.00%	1.25%
75th Pctl	1.00%	1.00%	1.25%	1.50%

If you expect future levels of the equilibrium real federal funds rate to be different than its current level, please provide the major factors underlying your expectation.
(21 responses)

Several respondents cited dissipating economic headwinds as a major factor underlying their expectation for future levels of the equilibrium real federal funds rate to differ from its current level. In addition, several respondents cited an expected increase in trend GDP growth and/or an expected increase in productivity growth as major factors underlying their expectation.

Please explain any changes to your estimates since the last time the question was asked on July 20.
(17 responses)

Several respondents noted that they made no significant changes to their estimates since the last time the question was asked on July 20.

4. 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	9%	27%	44%	16%	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	34%	34%	20%	8%	2%	1%	0%

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).
(25 responses)

Several respondents indicated that increased risks of a later liftoff and/or a more gradual pace of policy tightening in the U.S. led them to lower their forecasts for the 10-year Treasury yield since the last policy survey. Additionally, several respondents noted that they made few significant changes to their responses, while several respondents pointed to recent changes in market rates as motivating changes to their forecasts.

b) The 10-year Treasury yield decreased 31 basis points between September 16 and October 14. Please decompose this change into changes in the market's expected average real policy rate, expected average inflation rate, and the market-implied nominal term premium. Please ensure that your sum matches the change.

	Change in Market's Expected Average Real Policy Rate	Change in Market's Expected Average Inflation Rate	Change in Market-Implied Nominal Term Premium
Average (bps)	-14	-7	-9

What factor or factors were most material in driving your estimate of the intermeeting change in each of the subcomponents listed above?
(25 responses)

Several respondents characterized the change in the 10-year Treasury yield over the intermeeting period as being partly driven by a decline in the market's expected average real policy rate, with several specifically citing recent weaker-than-expected economic data as informing their view. Several also noted their expectation for a lower trajectory of short-term interest rates following the Committee's decision not to hike rates at the September FOMC meeting as well as FOMC communication perceived as suggesting that downside risks to the outlooks for U.S. growth and inflation had increased.

c) In the September press conference, Chair Yellen stated that "Survey-based measures of longer-term inflation expectations have remained stable. However, the Committee has taken note of recent declines in market-based measures of inflation compensation and will continue to monitor inflation developments carefully." Please rate the importance of each of the following factors in explaining the difference between survey-based measures of longer-term inflation expectations and market-based measures of longer-term inflation compensation (1 = not important, 5 = very important).
(21 responses)

	Market-Based Measures Incorporate Liquidity and Risk Premia	The Two Measures Reflect Differing Views on Future Expected Inflation	Survey-Based Measures May Be Inertial
Average	4.1	2.8	3.4

5. 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	13%	52%	32%	2%	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	14%	35%	38%	11%	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 September, seasonally adjusted, was 142.4 million.
(28 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	4.9%	62.4%	142.7	2.2%	1.4%	0.3%	1.7%
Median	5.0%	62.5%	142.8	2.3%	1.4%	0.7%	1.8%
75th Pctl	5.0%	62.6%	143.5	2.3%	1.5%	1.3%	1.9%

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".*
(21 complete responses)

One Quarter Prior to Liftoff

	IOER Rate	Target Federal Funds Rate or Range	Effective Federal Funds Rate	O/N RRP Rate	3-month T-bill Rate	Overnight Treasury GCF Repo Rate	O/N RRP Demand ($ bn)	O/N RRP Cap ($ bn)**
25th Pctl	0.25%	0.13%	0.13%	0.05%	0.01%	0.17%	150	300
Median	0.25%	0.13%	0.13%	0.05%	0.05%	0.23%	178	300
75th Pctl	0.25%	0.13%	0.14%	0.10%	0.10%	0.25%	275	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	3-month T-bill Rate	Overnight Treasury GCF Repo Rate	O/N RRP Demand ($ bn)	O/N RRP Cap ($ bn)**
25th Pctl	0.50%	0.38%	0.33%	0.25%	0.20%	0.36%	380	300
Median	0.50%	0.38%	0.35%	0.25%	0.28%	0.45%	510	600
75th Pctl	0.50%	0.38%	0.39%	0.25%	0.38%	0.50%	775	1000

† 13 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	3-month T-bill Rate	Overnight Treasury GCF Repo Rate	O/N RRP Demand ($ bn)	O/N RRP Cap ($ bn)**
25th Pctl	1.25%	1.13%	1.09%	1.00%	0.95%	1.01%	275	300
Median	1.38%	1.38%	1.20%	1.15%	1.25%	1.30%	425	400
75th Pctl	1.50%	1.38%	1.38%	1.25%	1.38%	1.45%	900	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	3-month T-bill Rate	Overnight Treasury GCF Repo Rate	O/N RRP Demand ($ bn)	O/N RRP Cap ($ bn)**
25th Pctl	2.00%	2.00%	2.00%	2.00%	2.20%	2.15%	200	300
Median	3.00%	2.88%	2.86%	2.58%	2.85%	2.82%	325	300
75th Pctl	3.25%	3.25%	3.25%	3.23%	3.20%	3.25%	600	500

† 6 respondent expected no O/N RRP cap.

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

Please note how you expect the Committee's approach to policy normalization to evolve over time. Additionally, comment on any changes you expect over time in the relative levels of money market rates and the expected amount of O/N RRP usage.
(23 responses)

Several respondents suggested that demand for overnight RRP operations will increase immediately following liftoff. Several respondents also suggested that the overnight RRP will be gradually phased out as a policy tool, particularly as the size of SOMA holdings declines and overnight RRP usage decreases.

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.
(26 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%	31%	44%	15%	3%

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

Several respondents highlighted various risks that may lead the effective federal funds rate to trade toward the lower end of the target range in explaining their responses.

6. 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.
(25 responses)

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

	Number of Months Relative to Liftoff	
	Treasuries	Agency Debt and MBS
25th Pctl	6	8
Median	9	9
75th Pctl	12	12

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.
(25 responses)

	Treasuries		
	No Change to Reinvestments	Reinvestments Ceased All at Once	Reinvestments Phased Out Over Time
Average	13%	19%	68%

	Agency Debt and MBS		
	No Change to Reinvestments	Reinvestments Ceased All at Once	Reinvestments Phased Out Over Time
Average	11%	19%	69%

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.
(25 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 September 8.
(18 responses)

Several respondents indicated no significant changes to their responses since the policy survey on September 8.

7. a) For the outcomes below, provide the percent chance you attach to the annual average CPI inflation rate from October 1, 2015 - September 30, 2020. Please also provide your point estimate for the most likely outcome.
(28 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%	4%

Point estimate for most likely outcome:

	Most Likely Outcome
25th Pctl	1.73%
Median	1.90%
75th Pctl	2.00%

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

	≤1.00%	1.01-1.50%	1.51-2.00%	2.01-2.50%	2.51-3.00%	≥3.01%
Average	5%	13%	30%	33%	14%	6%

Point estimate for most likely outcome:

	Most Likely Outcome
25th Pctl	1.99%
Median	2.01%
75th Pctl	2.25%