Responses to Survey of Market Participants

Markets Group, Federal Reserve Bank of New York

April 2015

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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. Brief summaries of the comments received in free response form are also provided.

Responses were received from 30 participants. Except where noted, all 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) How do you expect the April FOMC events 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	3
Median	3
75th Pctl	3

Please explain:
(23 responses)

Some participants noted that they expected no material change in the market perceptions of the stance of monetary policy mostly because they perceive monetary policy to be in a hold or a "wait and see" mode. Several participants noted that the broader stance of policy was unlikely to be materially altered by a limited sample of data.

b) How would you grade the Federal Reserve System's communication with the markets and with the public since the policy survey on March 9? Please provide a rating between 1 and 5, with 1 indicating ineffectiveness and 5 indicating effectiveness.

	Fed Communication Grade Number of Respondents:
1 - Ineffective	2
2	4
3	14
4	10
5 - Effective	0

Please explain:
(22 responses)

Several participants explained that communication from the FOMC had been successful in conveying the Committee's outlook for the economy and/or data dependence. Several participants explained that the revisions to the Summary of Economic Projections (SEP) and/or "the dots" at the March FOMC meeting had surprised the market and/or not been communicated well. Several participants felt that inconsistency in communications from individual FOMC participants created additional uncertainty in policy expectations.

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.

	Apr. 28-29	Jun. 16-17	Jul. 28-29	Sep. 16-17	Oct. 27-28	Dec. 15-16	≥ Jan. 2016
Average	0%	11%	9%	41%	8%	17%	14%

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

The March FOMC minutes indicated that "further improvement in the labor market, a stabilization of energy prices and a leveling out of the foreign exchange value of the dollar were all seen as helpful in establishing confidence that inflation would turn up." Relatedly, the Chair recently indicated that she would be "uncomfortable raising the federal funds rate" if readings on core inflation or other indicators were to weaken. Please rate the importance of these factors in determining whether the Committee would be "reasonably confident" in the inflation outlook (5= very important, 1= unimportant).

	Further Improvement in Labor Market	Stabilization in Energy Prices	Leveling Out of the U.S. Dollar	Absence of Weakening in Realized Core Inflation	Other (15 Responses)
Average	4.4	2.8	3.2	4.6	3.5

Other factors:

Several participants listed stabilization in market-based measures of inflation compensation and/or survey-based measures of inflation expectations when rating the importance of factors in determining the FOMC's "reasonable confidence" in the inflation outlook. Several participants listed stable or rising wage growth.

Please discuss what motivated your factor ratings.
(28 responses)

Several participants noted that their rating was based upon the relative importance of economic growth and the inflation outlook. Several participants noted that their rating was influenced by communication from the FOMC and its participants. Several participants noted the importance of seeing improvement in actual data and not just improvement in forecasts.

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. 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.
(28 complete responses)

Probability of Not Returning to ZLB within 2 Years Following Liftoff	
25th Pctl	75%
Median	78%
75th Pctl	85%

First Year Following Liftoff

	0 - 50 basis points	51 - 100 basis points	101 - 150 basis points	151 - 200 basis points	>200 basis points
Average	20%	44%	25%	9%	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	17%	35%	28%	14%	7%

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. (28 complete responses)**

Top of Target Range

	Apr 28-29	June 16-17	July 28-29	September 16-17	October 27-28	December 15-16	2016 Q1	2016 Q2	2016 Q3	2016 Q4	2017 H1	2017 H2	2018 H1	2018 H2
25th Pctl	0.25%	0.25%	0.25%	0.50%	0.50%	0.75%	1.00%	1.25%	1.50%	1.75%	1.75%	2.00%	2.13%	2.25%
Median	0.25%	0.25%	0.25%	0.50%	0.50%	0.75%	1.00%	1.25%	1.50%	1.75%	2.00%	2.75%	2.63%	2.88%
75th Pctl	0.25%	0.25%	0.25%	0.50%	0.50%	0.75%	1.00%	1.25%	1.50%	1.75%	2.50%	3.25%	3.50%	3.50%
# of Responses	25	25	25	24	23	23	21	21	21	21	19	19	16	16

Bottom of Target Range

	Apr 28-29	June 16-17	July 28-29	September 16-17	October 27-28	December 15-16	2016 Q1	2016 Q2	2016 Q3	2016 Q4	2017 H1	2017 H2	2018 H1	2018 H2
25th Pctl	0.00%	0.00%	0.00%	0.25%	0.25%	0.50%	0.75%	0.88%	1.13%	1.50%	1.50%	1.88%	2.00%	2.25%
Median	0.00%	0.00%	0.00%	0.25%	0.25%	0.50%	0.75%	1.00%	1.25%	1.50%	1.75%	2.38%	2.50%	2.75%
75th Pctl	0.00%	0.00%	0.00%	0.25%	0.25%	0.50%	0.75%	1.00%	1.25%	1.50%	2.25%	2.75%	3.00%	3.25%
# of Responses	25	25	25	25	24	24	22	22	22	22	20	20	17	17

Target Rate

	Apr 28-29	June 16-17	July 28-29	September 16-17	October 27-28	December 15-16	2016 Q1	2016 Q2	2016 Q3	2016 Q4	2017 H1	2017 H2	2018 H1	2018 H2
25th Pctl	0.25%	0.25%	0.25%	0.25%	0.50%	0.50%	0.75%	1.00%	1.25%	1.50%	2.00%	2.50%	3.00%	3.13%
Median	0.25%	0.25%	0.25%	0.38%	0.50%	0.75%	1.00%	1.25%	1.50%	1.75%	2.50%	3.00%	3.25%	3.50%
75th Pctl	0.25%	0.25%	0.25%	0.50%	0.50%	0.75%	1.00%	1.50%	2.00%	2.25%	2.75%	3.25%	3.50%	3.50%
# of Responses	3	3	3	4	5	5	7	7	7	7	9	9	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	3.00%	2.12%
Median	3.50%	2.75%
75th Pctl	3.75%	3.00%

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, and 2017. If you expect a target range for federal funds please use the midpoint of the range in providing your response.**
(29 complete responses)

	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	17%	31%	42%	9%	1%	0%	0%

	Year-End 2016						
	≤0.50%	**0.51 - 1.00%**	**1.01 - 1.50%**	**1.51 - 2.00%**	**2.01 - 2.50%**	**2.51 - 3.00%**	**≥3.01%**
Average	8%	14%	27%	28%	15%	6%	2%

	Year-End 2017						
	≤2.00%	**2.01 - 2.50%**	**2.51 - 3.00%**	**3.01 - 3.50%**	**3.51 - 4.00%**	**4.01 - 4.50%**	**≥4.51%**
Average	28%	21%	22%	15%	9%	4%	1%

If you changed your expectations for the most likely timing of liftoff and/or the most likely path of the target rate or range since the last time the questions were asked, explain the factors that motivated you to make the change(s):
(24 responses)

Several participants explained that they see the FOMC as more accommodative and/or that their answers were motivated by the downward revision to the economic forecasts and the target federal funds rate forecasts in the Summary of Economic Projections (SEP) at the March FOMC meeting. Several participants explained their answer with weak economic data in Q1. Several participants pointed to weak economic data in Q1. Several participants indicated that they had not materially changed their expectations for the federal funds rate since the last time the question was asked.

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.**
(29 complete responses)

	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	11%	25%	33%	20%	8%	2%	1%

	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%	27%	23%	12%	5%	2%	1%

If you changed your expectations since the last time the question was asked, explain the factors that motivated you to make the change(s).
(21 responses)

Several participants highlighted that the ongoing QE program in the euro-area and/or spillover from global rates markets had influenced their forecasts for the 10-year Treasury yield. Several participants explained their changes with a more accommodative FOMC and/or a lower path of policy rate.

b) **The March FOMC minutes noted that "market-based measures [of inflation compensation] had tracked quite closely the movements in crude oil over the intermeeting period." Please discuss which factor or factors you believe are most pertinent in explaining the correlation between changes in short-dated energy futures prices and TIPS-implied five-year inflation compensation, five years ahead.**
(26 responses)

Several participants noted low liquidity and technical factors in the TIPS market. Several other participants noted that the decline in oil prices had led to lower inflation expectations and inflation risk premia, reducing investor appetite for TIPS. Several participants explained the correlation as a coincidence and/or temporary, while several participants thought that the correlation was driven by a fear that the decline in the oil price is demand driven and will thereby lead to lower global economic growth.

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.**

	< 5.0%	5.0 - 5.4%	5.5 - 5.9%	6.0 - 6.5%	> 6.5%
Average	25%	59%	15%	1%	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.**
(29 complete responses)

	< 1.25%	1.25 - 1.74%	1.75 - 2.24%	2.25 - 2.74%	≥ 2.75%
Average	11%	33%	42%	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 March, seasonally adjusted, was 141.2 million.**
(28 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	5.1%	62.8%	142.1	2.1%	1.4%	0.4%	1.7%
Median	5.2%	62.8%	142.2	2.3%	1.5%	0.5%	1.9%
75th Pctl	5.3%	63.0%	142.4	2.5%	1.5%	1.0%	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".*
(22 complete responses)

One Quarter Prior to Liftoff

	IOER Rate	Target Federal Funds Rate or Range	Federal Funds Effective Rate	O/N RRP Rate	3M LIBOR Rate	Overnight Treasury GCF Repo Rate	O/N RRP Demand ($ bn)	O/N RRP Cap ($ bn)**
25th Pctl	0.25%	0.13%	0.10%	0.05%	0.25%	0.10%	150	300
Median	0.25%	0.13%	0.12%	0.05%	0.25%	0.13%	175	300
75th Pctl	0.25%	0.13%	0.13%	0.10%	0.30%	0.15%	200	300

† 2 participants expected no O/N RRP cap.

Immediately Following Liftoff

	IOER Rate	Target Federal Funds Rate or Range	Federal Funds Effective Rate	O/N RRP Rate	3M LIBOR Rate	Overnight Treasury GCF Repo Rate	O/N RRP Demand ($ bn)	O/N RRP Cap ($ bn)**
25th Pctl	0.50%	0.38%	0.32%	0.25%	0.50%	0.28%	300	325
Median	0.50%	0.38%	0.36%	0.25%	0.51%	0.35%	350	600
75th Pctl	0.50%	0.38%	0.38%	0.30%	0.62%	0.38%	500	800

† 7 participants expected no O/N RRP cap.

1 Year Following Liftoff

	IOER Rate	Target Federal Funds Rate or Range	Federal Funds Effective Rate	O/N RRP Rate	3M LIBOR Rate	Overnight Treasury GCF Repo Rate	O/N RRP Demand ($ bn)	O/N RRP Cap ($ bn)**
25th Pctl	1.25%	1.25%	1.25%	1.15%	1.40%	1.23%	225	300
Median	1.50%	1.38%	1.38%	1.25%	1.54%	1.35%	380	500
75th Pctl	1.50%	1.50%	1.50%	1.38%	1.75%	1.49%	500	800

† 5 participants expected no O/N RRP cap.

3 Years Following Liftoff

	IOER Rate	Target Federal Funds Rate or Range	Federal Funds Effective Rate	O/N RRP Rate	3M LIBOR Rate	Overnight Treasury GCF Repo Rate	O/N RRP Demand ($ bn)	O/N RRP Cap ($ bn)**
25th Pctl	2.50%	2.38%	2.20%	2.00%	2.30%	2.31%	175	300
Median	3.25%	3.25%	3.25%	3.00%	3.38%	3.20%	300	300
75th Pctl	3.60%	3.50%	3.50%	3.45%	3.65%	3.47%	440	500

† 2 participants 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 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.
(24 responses)

Several participants noted that their expectations for policy normalization are in-line with the FOMC's "Policy Normalization Principles and Plans". Several participants expect usage of O/N RRP to increase over time. Several participants expect the Committee to revert to a target rate rather than a range in the long run.

e) **The standard deviation of submitted bids to the O/N RRP over the first quarter of 2015, excluding month- and quarter-end dates, was approximately $32 billion. Please indicate whether you expect that the variation in submitted bids to the O/N RRP, excluding month- and quarter-end dates, will be higher, lower, or equal to this current level of variation, over the quarter ending at each of the time periods below.**
(22 complete responses)

O/N RRP Variation
Number of Respondents:

	Immediately Following Liftoff	6 Months Following Liftoff	1 Year Following Liftoff	3 Years Following Liftoff
Higher	16	16	10	4
Equal	6	4	10	9
Lower	0	2	2	9

Please explain which factor or factors were most relevant in formulating your expectations for the variation in submitted bids to the O/N RRP.
(23 responses)

The participants' commentary did not focus around common factors.

f) **At the March FOMC meeting the Committee augmented its Policy Normalization Principles and Plans, indicating that, at liftoff, it plans to "continue to target a range for the federal funds rate that is 25 basis points wide...set the IOER rate equal to the top of the target range...and set the offering rate associated with an ON RRP facility equal to the bottom of the target range." Please provide the percent chance you attach to the average federal funds effective 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.**
(27 complete 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	10%	32%	39%	16%	4%

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

Several participants noted they have confidence that the Fed will effectively employ its normalization tools. Several participants noted that challenges in relation to the cap on O/N RRPs may lead the effective rate to trade lower in the target range. Several participants cited sensitivity to FHLB participation and regulatory impact on the fed funds market as factors most relevant for their expectations for the average federal funds effective rate relative to the 25 basis point target range after liftoff.

5. 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.
(26 complete responses)

Number of Months Relative to Liftoff

	Treasuries	Agency Debt and MBS
25th Pctl	4	4
Median	6	6
75th Pctl	9	9

Most Likely Quarter and Year of End to Reinvestments

	Treasuries*	Agency Debt and MBS
25th Pctl	Q1 2016	Q1 2016
Median	Q1 2016	Q1 2016/Q2 2016*
75th Pctl	Q2 2016	Q2 2016

**The median for Agency Debt and MBS was between Q1 2016 and Q2 2016*

Please explain your assumptions for the timing, size, and pace of redemptions and sales of securities, if applicable. Please also explain the factors behind any change in your expectations since the last time the question was asked:
(24 responses)

Several participants noted that they view tapering of reinvestments as possible. Several participants note they do not expect sales of securities to take place. Several participants explained their changes with changes to their view on the timing of liftoff.

6. a) For the outcomes below, provide the percent chance you attach to the annual average CPI inflation rate from April 1, 2015 – March 31, 2019. Please also provide your point estimate for the most likely outcome.
(29 complete responses)

	≤1.00%	1.01-1.50%	1.51-2.00%	2.01-2.50%	2.51-3.0%	≥3.01%
Average	6%	18%	35%	28%	9%	5%

Point estimate for most likely outcome:

	Most Likely Outcome
25th Pctl	1.75%
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 April 1, 2020 – March 31, 2024. Please also provide your point estimate for the most likely outcome.
(29 complete responses)

	≤1.00%	1.01-1.50%	1.51-2.00%	2.01-2.50%	2.51-3.00%	≥3.01%
Average	5%	13%	27%	34%	14%	7%

Point estimate for most likely outcome:

	Most Likely Outcome
25th Pctl	2.00%
Median	2.20%
75th Pctl	2.30%