Responses to Survey of Market Participants

Markets Group, Federal Reserve Bank of New York

March 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.[1] Brief summaries of the comments received in free response form are also provided.

Responses were received from 28 market participants. Except where noted, all 28 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 March FOMC statement. Limit your responses to changes you consider most likely.

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

Several participants expected no significant changes to the language in the FOMC statement. Several participants expected the statement to reflect a slightly less optimistic tone with regards to current economic conditions and the outlook for economic growth while several others anticipated that the statement would be more optimistic on the characterization of U.S. economic growth. Several participants anticipated that the statement would reference the upward move in market-implied inflation compensation measures. Several participants expected that the statement would make note of further improvement in the labor market.

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

Most participants made note of their expectation that there would be no significant change to the Committee's policy of reinvesting Treasury and agency securities.

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

Most participants expected that the Committee would remove or modify the "patient" language in the March statement. Several participants expected the FOMC to emphasize that the initial tightening and normalization of monetary policy are data dependent. Several participants expected the Committee to add language to the statement that the timing of liftoff is dependent upon the Committee's "reasonable confidence" in data.

Other:
(4 responses)

Participants did not provide substantial commentary in this section.

b) What are your expectations for the release of FOMC participants' economic projections in the advance materials of the Summary of Economic Projections (SEP)?

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

(27 responses)

Some participants anticipated that FOMC participants' economic projections would reflect lower forecasts for the unemployment rate in 2015. Several participants expected that the forecast for the long-run unemployment rate would be lowered. Some market participants expected the Committee participants' forecasts for the headline PCE for 2015 would be revised lower; several also expected core PCE forecasts for 2015 to be revised lower. Several participants expected the forecasts for 2015 GDP growth to be revised higher while several others anticipated the forecasts for 2015 GDP growth to be revised lower. Several participants expected no major changes to the advance materials of the SEP.

c) **What are your expectations for the release of FOMC participants' year-end target federal funds rate projections in the advance materials of the Summary of Economic Projections (SEP)?**
(24 responses)

Some participants expected the median of FOMC participants' year-end target federal funds rate projections for 2015 to be revised modestly lower, with several also expecting lower median projections for 2016 and 2017. Several participants expected a narrower dispersion of the 2015 projections. Several participants anticipated no change to the FOMC participants' federal funds rate projections.

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

Some participants expected the Chair to note that the Committee's decision on the timing of liftoff will be data dependent. Several participants anticipated that if the "patient" language were removed from the statement, the Chair would emphasize that such a removal does not mean that liftoff will take place within a fixed number of subsequent FOMC meetings. Several participants expected the Chair would cite the Committee's need for confidence in the inflation outlook before beginning to tighten the stance of monetary policy. Several anticipated the Chair to note recent improvements in the labor market.

e) **How do you expect the March 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	2
Median	2
75th Pctl	3

Please explain:

Some participants cited that the motivation for their response was the expectation that the Committee would remove or modify the "patient" language. Several participants explained their view as driven by the expectation that the March FOMC events would signal that monetary policy normalization has shifted closer in time. Several participants expected that the March FOMC events would not change the market's perceptions of the stance of monetary policy.

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.**

	Mar. 17-18	Apr. 28-29	Jun. 16-17	Jul. 28-29	Sep. 16-17	Oct. 27-28	Dec. 15-16	≥ Jan. 2016
Average	0%	2%	33%	11%	28%	6%	9%	10%

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

Probability of Not Returning to ZLB within 2 Years Following Liftoff	
25th Pctl	75%
Median	80%
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	16%	39%	30%	13%	2%

**Conditional on not returning to ZLB*

Second Year Following Liftoff*

	0 - 50 basis points	51 - 100 basis points	101 - 150 basis points	151 - 200 basis points	>200 basis points
Average	14%	34%	28%	17%	7%

**Conditional on not returning to ZLB*

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

	March 17-18	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%	1.75%	2.00%	2.50%	2.75%	2.88%	3.00%
Median	0.25%	0.25%	0.50%	0.50%	0.75%	0.75%	0.88%	1.25%	1.50%	1.75%	2.00%	2.75%	3.13%	3.38%	3.50%
75th Pctl	0.25%	0.25%	0.50%	0.50%	0.75%	0.75%	1.00%	1.25%	1.50%	2.00%	2.25%	3.00%	3.50%	3.63%	3.75%
# of Responses	24	24	23	22	21	20	19	17	17	17	17	16	16	12	11

Bottom of Target Range	March 17-18	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%	0.00%	0.25%	0.25%	0.50%	0.75%	1.00%	1.50%	1.75%	2.13%	2.50%	2.63%	2.75%
Median	0.00%	0.00%	0.25%	0.25%	0.50%	0.50%	0.63%	1.00%	1.25%	1.50%	1.75%	2.38%	2.88%	3.00%	3.00%
75th Pctl	0.00%	0.00%	0.25%	0.25%	0.50%	0.50%	0.75%	1.00%	1.25%	1.75%	2.00%	2.75%	3.38%	3.38%	3.50%
# of Responses	24	24	23	22	21	20	19	17	17	17	17	16	16	12	11

Target Rate	March 17-18	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%	0.25%	0.25%	0.25%	0.38%	0.50%	0.75%	1.00%	1.25%	1.50%	1.88%	2.00%	2.50%	3.00%
Median	0.25%	0.25%	0.25%	0.25%	0.50%	0.50%	0.75%	1.00%	1.50%	1.50%	2.00%	2.25%	2.75%	3.50%	3.50%
75th Pctl	0.25%	0.25%	0.38%	0.50%	0.50%	0.75%	1.00%	1.50%	1.75%	2.25%	2.50%	3.00%	3.50%	3.50%	3.50%
# of Responses	3	3	4	5	7	8	9	11	11	11	11	12	12	16	17

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	3.25%	2.38%
Median	3.50%	2.80%
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.
(27 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	13%	26%	44%	14%	2%	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	7%	14%	19%	28%	18%	9%	4%

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%	19%	20%	15%	13%	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):
(15 responses)

Several participants cited strong labor market data as a factor that motivated changes in their assigned probabilities.

3. **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	8%	20%	30%	27%	10%	3%	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	25%	24%	24%	15%	8%	3%	1%

4. **Please describe any modifications to the "patient" language in the FOMC statement you expect prior to liftoff, including what modifications would be made and when it would be modified or removed.**

Most participants expected the "patient" language to be removed or modified in the March FOMC statement. Some participants noted that when the "patient" language is removed or modified, they anticipate that the Committee will communicate increased emphasis on data dependency and/or add language that the timing of liftoff is dependent on "reasonable confidence" in economic data. Several participants anticipated that the Chair would emphasize that a removal of the "patient" language does not mean that liftoff will take place within a fixed number of subsequent FOMC meetings.

Conditional on the Committee first modifying or removing the "patient" language, over the potential outcomes below please provide the percent chance you attach to the Committee first increasing the federal funds rate or range, expressed in terms of the number of FOMC meetings relative to the meeting at which the Committee modifies or removes "patient."

Liftoff relative to modification or removal of "patient":

	≤ 0 meetings	+1 meeting	+2 meetings	+3 meetings	+4 meetings	>+4 meetings
Average	2%	9%	38%	14%	23%	14%

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.**

	< 5.5%	5.5 - 5.9%	6.0 - 6.5%	> 6.5%
Average	74%	24%	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	10%	33%	45%	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 January, seasonally adjusted, was 140.8 million. For your calculations, please take into account the February data to be released on March 6.
(25 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	5.2%	62.8%	141.8	2.1%	1.4%	0.0%	1.7%
Median	5.3%	62.9%	142.0	2.2%	1.4%	0.5%	1.9%
75th Pctl	5.4%	63.0%	142.2	2.4%	1.5%	0.9%	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".*
(19 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 Usage ($ bn)
25th Pctl	0.25%	0.13%	0.10%	0.05%	0.25%	0.10%	150
Median	0.25%	0.13%	0.12%	0.05%	0.25%	0.13%	200
75th Pctl	0.25%	0.13%	0.13%	0.10%	0.30%	0.15%	275

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 Usage ($ bn)
25th Pctl	0.50%	0.38%	0.33%	0.25%	0.50%	0.28%	250
Median	0.50%	0.38%	0.37%	0.25%	0.51%	0.35%	400
75th Pctl	0.50%	0.38%	0.38%	0.30%	0.62%	0.38%	650

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 Usage ($ bn)
25th Pctl	1.40%	1.25%	1.25%	1.25%	1.35%	1.25%	250
Median	1.50%	1.38%	1.40%	1.25%	1.61%	1.38%	390
75th Pctl	1.75%	1.63%	1.55%	1.50%	1.87%	1.60%	650

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 Usage ($ bn)
25th Pctl	2.75%	2.61%	2.70%	2.25%	2.50%	2.50%	200
Median	3.50%	3.38%	3.40%	3.25%	3.50%	3.35%	300
75th Pctl	3.60%	3.50%	3.50%	3.40%	3.75%	3.65%	500

**For participants that submitted ranges, midpoints of the ranges are used.*

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 participants expected the usage of overnight RRP's to decline over time during normalization. Several participants noted they expect the normalization process with regards to liftoff and the pace of tightening will be data dependent.

6. 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 leave the fields blank. Please ensure your signs are correct.
(23 complete responses)

	Number of Months Relative to Liftoff	
	Treasuries	Agency Debt and MBS
25th Pctl	6	6
Median	7	7
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
75th Pctl	Q2 2016	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:

Several participants expected a possible tapering of reinvestments. Several participants noted they believe sales of securities are highly unlikely.

7. a) For the outcomes below, provide the percent chance you attach to the annual average CPI inflation rate from March 1, 2015 - February 28, 2019. Please also provide your point estimate for the most likely outcome.
(26 complete responses)

	≤1.00%	1.01-1.50%	1.51-2.00%	2.01-2.50%	2.51-3.0%	≥3.01%
Average	7%	18%	34%	28%	9%	5%

Point estimate for most likely outcome:

	Most Likely Outcome
25th Pctl	1.75%
Median	1.90%
75th Pctl	2.05%

b) For the outcomes below, provide the percent chance you attach to the annual average CPI inflation rate from March 1, 2020 - February 29, 2024. Please also provide your point estimate for the most likely outcome.

(26 complete responses)

	≤1.00%	1.01-1.50%	1.51-2.00%	2.01-2.50%	2.51-3.00%	≥3.01%
Average	5%	12%	27%	34%	14%	7%

Point estimate for most likely outcome:

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

c) By how much has your point estimate for the five-year annual average CPI inflation rate, five years forward, changed since July 2014, and which factors were most important in changing your expectations?
(25 complete responses)

	Change in Forecast (bps)
25th Pctl	-25
Median	0
75th Pctl	0

Most important factors:

Several participants cited the decline in oil prices as the reason why they changed their expectations for the five-year annual average CPI inflation rate, five years forward. Several participants cited slower global growth as the reason for their change.

Appendix: Updates to the Survey

Updated as of March 23, 2015

Following the March FOMC Meeting (March 17-18), market participants were asked to update their responses to questions 2 (parts a, c, and e) and 5 (parts a and b).

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.
(25 complete responses)

	Apr. 28-29	Jun. 16-17	Jul. 28-29	Sep. 16-17	Oct. 27-28	Dec. 15-16	≥ Jan. 2016
Average	0%	21%	9%	39%	7%	13%	11%

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

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.
(25 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%	2.25%	2.75%	2.75%	3.00%
Median	0.25%	0.25%	0.25%	0.50%	0.50%	0.75%	1.00%	1.25%	1.63%	1.94%	2.50%	2.75%	3.25%	3.50%
75th Pctl	0.25%	0.25%	0.25%	0.50%	0.50%	0.75%	1.25%	1.50%	1.75%	2.00%	2.50%	3.00%	3.50%	3.50%
# of Responses	22	22	21	20	19	19	19	18	18	18	17	17	14	13

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%	1.00%	1.25%	1.50%	2.00%	2.25%	2.50%	2.75%
Median	0.00%	0.00%	0.00%	0.25%	0.25%	0.50%	0.75%	1.00%	1.38%	1.50%	2.25%	2.50%	3.00%	3.00%
75th Pctl	0.00%	0.00%	0.00%	0.25%	0.25%	0.50%	1.00%	1.25%	1.50%	1.75%	2.25%	2.75%	3.25%	3.25%
# of Responses	22	22	21	20	19	19	19	18	18	18	17	17	14	13

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%	0.25%	0.50%	0.50%	0.75%	1.00%	1.25%	1.75%	2.38%	3.00%	3.25%
Median	0.25%	0.25%	0.25%	0.25%	0.50%	0.63%	0.75%	1.50%	1.50%	2.00%	2.38%	3.00%	3.50%	3.50%
75th Pctl	0.25%	0.25%	0.50%	0.50%	0.75%	0.75%	1.25%	1.50%	2.00%	2.50%	2.88%	3.25%	3.50%	3.50%
# of Responses	2	2	3	5	6	6	6	7	7	7	8	8	11	12

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.**
(23 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	13%	28%	46%	12%	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%	12%	22%	31%	17%	8%	3%

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	23%	20%	26%	15%	12%	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):
(20 responses)

Several participants cited the downward revisions to the appropriate pace of policy firming in the March SEP as influencing the change in their expectations. Several participants cited the downward revision to the longer run unemployment rate in the March SEP as influencing the change.

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.**
(25 complete responses)

	< 5.5%	5.5 - 5.9%	6.0 - 6.5%	> 6.5%
Average	78%	20%	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.**
(25 complete responses)

	< 1.25%	1.25 - 1.74%	1.75 - 2.24%	2.25 - 2.74%	≥ 2.75%
Average	10%	32%	45%	10%	3%