Responses to Survey of Primary Dealers

Markets Group, Federal Reserve Bank of New York

April 2016

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Distributed: 04/14/2016 – Received by: 04/18/2016

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

Responses were received from 22 primary dealers. ***Except where noted, all 22 dealers responded to each question.*** *In some cases, dealers 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. Provide below your expectations for changes, if any, to the language referencing each of the following topics in the April FOMC statement.

Current economic conditions:

Some dealers expected the Committee to modestly downgrade its assessment of current economic conditions, and several dealers expected that it would note softer consumer spending. Additionally, several dealers expected that the Committee would acknowledge a decline in market-based measures of inflation, or alternatively remove the reference to inflation having "picked up in recent months."

Economic outlook:
(21 responses)

Many dealers specifically noted expectations for no significant changes to the Committee's communication on the economic outlook in the April FOMC statement, with several dealers noting that they expected the Committee to indicate that global economic and financial developments continue to pose risks.

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

Many dealers specifically noted expectations for no significant change in the Committee's communication on the expected path of policy rates and forward guidance on the target federal funds rate in the April FOMC statement.

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

All dealers that submitted responses to this question expected no change in the Committee's communication on its policy of reinvesting principal payments on Treasury and agency securities.

Other:
(8 responses)

Dealers did not provide substantial commentary in this section.

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

2. **How would you grade the Federal Reserve System's communication with the markets and with the public since the policy survey on March 7? 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	6
4	8
5 - Effective	2

Please Explain:
(21 responses)

In explaining their rating, some dealers characterized Chair Yellen's remarks during the intermeeting period as clarifying the FOMC's stance on the appropriate path of monetary policy. Several dealers interpreted the Committee's communications as emphasizing a gradual approach to further policy normalization. However, some dealers cited some difficulty in interpreting the variety of views expressed by FOMC participants since the March FOMC meeting, with several dealers indicating that the communications by FOMC participants have increased or reinforced uncertainty regarding the future path of the policy rate.

3. a) **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. For the time periods at which you expect a target range, please indicate the midpoint of that range in providing your response.**
(20 responses)

	Target Rate / Midpoint of Target Range					
	Apr. 26-27 2016	Jun. 14-15 2016	Jul. 26-27 2016	Sep. 20-21 2016	Nov. 1-2 2016	Dec. 13-14 2016
25th Pctl	0.38%	0.38%	0.38%	0.63%	0.63%	0.63%
Median	0.38%	0.63%	0.63%	0.63%	0.63%	0.88%
75th Pctl	0.38%	0.63%	0.63%	0.63%	0.63%	0.88%
# of Responses	22	22	22	22	22	22

	2017 Q1	2017 Q2	2017 Q3	2017 Q4	2018 H1	2018 H2	2019 H1
25th Pctl	0.88%	1.13%	1.13%	1.38%	1.63%	1.75%	2.06%
Median	0.88%	1.13%	1.38%	1.63%	2.13%	2.44%	2.56%
75th Pctl	1.13%	1.38%	1.63%	1.88%	2.23%	2.65%	3.13%
# of Responses	22	22	22	22	20	20	20

b) **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	2.90%	2.15%
Median	3.25%	2.58%
75th Pctl	3.25%	2.75%

c) **The following questions relate to your expectations for the Committee's next policy action in 2016 and some associated conditional outcomes for the year-end 2016 target federal funds rate or range. Only fill out the conditional probability distributions in parts (ii), (iii), and (iv) if you assign a non-zero probability to the conditioning event occurring.**

i) **Please indicate the percent chance that you attach to the following possible outcomes for the Committee's next policy action in 2016.**

	Next Change is Increase in Target Rate or Range	Next Change is Decrease in Target Rate or Range	No Change in Target Rate or Range in 2016
Average	68%	6%	26%

ii) **Conditional on the Committee's next policy action in 2016 being an increase in the target federal funds rate or range, please indicate the percent chance that you attach to the following possible outcomes for the timing of such a change. Only fill out this conditional probability distribution if you assigned a non-zero probability to the next change in the target rate or range being an increase.**

	Increase Occurs at April FOMC Meeting	Increase Occurs at June FOMC Meeting	Increase Occurs at July FOMC Meeting or Later
Average	3%	39%	58%

iii) **Conditional on the Committee's next policy action in 2016 being a decrease in the target federal funds rate or range, please indicate the percent chance that you attach to the following possible outcomes for the timing of such a change. Only fill out this conditional probability distribution if you assigned a non-zero probability to the next change in the target rate or range being a decrease.**
(19 responses)

	Decrease Occurs at April FOMC Meeting	Decrease Occurs at June FOMC Meeting	Decrease Occurs at July FOMC Meeting or Later
Average	2%	8%	90%

iv) **Of the possible outcomes below, please indicate the percent chance that you attach to the target federal funds rate or range falling in each of the following ranges at the end of 2016, conditional on the following possible scenarios for the direction and timing of the Committee's next policy action in 2016. Only fill out the conditional probability distributions for which you assigned a non-zero probability to the conditioning event occurring. If you expect a target range, please use the midpoint of that range in providing your response.**
(21 responses)

	Next change is increase, occurs at Jun. meeting or earlier							
	<0.00%	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	1%	3%	8%	65%	20%	3%	0%	0%

	Next change is increase, occurs at Jul. meeting or later							
	<0.00%	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	1%	3%	11%	72%	12%	1%	0%	0%

	Next change is decrease							
	<0.00%	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	10%	84%	5%	0%	0%	0%	0%	0%

d) i) Of the possible outcomes below, please indicate the percent chance that you attach to the target federal funds rate or range falling in each of the following ranges at the end of 2017 and 2018, conditional on not moving to the zero lower bound (ZLB) at any point during 2016-2018. If you expect a target range, please use the midpoint of that range in providing your response. (21 responses)

	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	18%	26%	36%	14%	4%	1%	1%

	Year-end 2018						
	≤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%	15%	18%	21%	22%	7%	3%

ii) Please indicate the percent chance that you attach to moving to the ZLB at some point in 2016-2018.

	Probability of Moving to ZLB at Some Point in 2016-2018
25th Pctl	19%
Median	20%
75th Pctl	35%

If you placed a non-zero probability on moving to the ZLB at some point in 2016-2018 above, please indicate your estimate for the most likely timing of such an event. (21 responses)

	Timing of Moving to ZLB at Some Point in 2016-2018
25th Pctl	H1 2017
Median	H1 2017
75th Pctl	H1 2018 / H2 2018

iii) **Of the possible outcomes below, please indicate the percent chance that you attach to the target federal funds rate or range falling in each of the following ranges <u>at the end of 2017 and 2018</u>, <u>conditional on moving to the ZLB at some point in 2016-2018</u>. <u>Only fill out these conditional probability distributions if you assigned a non-zero probability to moving to the ZLB at some point in 2016-2018</u>. If you expect a target range, please use the midpoint of that range in providing your response.**

Year-end 2017

	<0.00%	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%	48%	14%	10%	10%	8%	2%	1%

Year-end 2018

	<0.00%	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	10%	51%	13%	12%	8%	4%	1%	1%

iv) **What is your estimate of the target federal funds rate or range at the effective lower bound? (20 responses)**

	Level of Target Fed Funds Rate or Range at ELB
25th Pctl	-0.25%
Median	0.00%
75th Pctl	0.13%

For parts a-d, please explain the factors behind any change to your expectations, where applicable, since the last policy survey.
(16 responses)

Several dealers indicated that they revised their responses to reflect a more gradual expected path of increases in the target range, which they cited was driven by communication from some Committee participants. Additionally, several dealers indicated that they perceive an increase in the policy rate in June as being less likely than in the previous survey. Lastly, several dealers specifically noted that they made no significant changes to their expectations since the last policy survey.

4. a) **The following matrix lays out hypothetical scenarios in which the realized levels of the 2016 unemployment rate (Q4 average level) and/or the 2016 core PCE deflator (Q4/Q4 growth) are either 50 basis points above, below, or equal to the medians of FOMC participants' projections for these indicators in the March Summary of Economic Projections (SEP). For example, the upper left box represents a scenario in which the unemployment rate and core PCE deflator are both 50 basis points below the current SEP medians. The upper right box represents a scenario in which the unemployment rate is 50 basis points above the current SEP median while the core PCE deflator is 50 basis points below the current SEP median.**

For each of the following hypothetical scenarios below, please indicate the level of the target federal funds rate or range that you expect would prevail at the end of 2016. If you expect a target range, please indicate the midpoint of that range in providing your response.
(21 responses)

FF Rate Given 2016 Unemployment rate (Q4 average level) of 4.2%

	2016 Core PCE deflator: 1.1%	2016 Core PCE deflator: Current Median 1.6%	2016 Core PCE deflator: 2.1%
Average	0.46%	0.86%	1.14%

FF Rate Given 2016 Unemployment rate (Q4 average level) of 4.7% (Current Median)

	2016 Core PCE deflator: 1.1%	2016 Core PCE deflator: Current Median 1.6%	2016 Core PCE deflator: 2.1%
Average	0.38%	0.79%	0.95%

FF Rate Given 2016 Unemployment rate (Q4 average level) of 5.2%

	2016 Core PCE deflator: 1.1%	2016 Core PCE deflator: Current Median 1.6%	2016 Core PCE deflator: 2.1%
Average	0.26%	0.53%	0.74%

Please explain any assumptions behind your response.
(19 responses)

In explaining their responses, several dealers assumed a larger response in the level of the target federal funds rate or range would take place following a shock to the core PCE deflator than a shock in the unemployment rate. Additionally, several dealers noted assuming that the labor force participation rate would remain constant across the scenarios, such that an increase in the unemployment rate would not be driven by changes to the labor force participation rate. Lastly, several dealers indicated that additional details on the different scenarios would have helped them develop a more informed estimate for the expected target federal funds rate outcomes at 2016 year-end under each scenario.

b) Previous FOMC communication has indicated that the economy's neutral (i.e. equilibrium) real federal funds rate, which can be understood as the level of the real federal funds rate that would be neither expansionary nor contractionary if the economy were operating near its potential, is currently low by historical standards and is likely to rise only gradually over time. Please provide your estimate for the level of the neutral real federal funds rate at the end of 2016.

	Level of Neutral Real Fed Funds Rate at Year-End 2016
25th Pctl	0.00%
Median	0.05%
75th Pctl	1.00%

Please explain any assumptions behind your response.
(14 responses)

Several dealers indicated that their estimate of the neutral real federal funds rate at the end of 2016 was influenced by their projected level of economic growth or potential growth.

Does your estimate for the level of the neutral real federal funds rate at end of 2016 vary across the hypothetical scenarios given in part a? If so, please explain.
(21 responses)

Several dealers noted that their estimate for the level of the neutral real federal funds rate at the end of 2016 did not vary substantially across the scenarios given in part a, whereas several other dealers noted that their estimated level of the neutral real federal funds rate at the end of 2016 did vary across the scenarios. However, several dealers indicated that additional details on the different scenarios would have helped them submit a more informed estimate for the neutral real federal funds rate at 2016 year-end under each scenario.

5. In the March press conference, Chair Yellen indicated that concerns about global economic prospects led to "increased volatility and somewhat tighter financial conditions in the United States, although financial conditions have improved notably more recently." Please rate the importance of the following factors that may explain decreased financial market volatility and the rebound in some risk asset prices since mid-February (5=very important, 1=not important).

Importance of the Following Factors in Explaining Decreased Financial Market Volatility and the Rebound in Some Risk Asset Prices since mid-February

	Changes to outlook on U.S. growth/inflation	Changes to outlook on foreign growth/inflation	Chinese FX developments	Volatility in oil markets	Recent Fed policy actions and communications	Recent foreign central bank policy actions and communications	Other (please explain)*
Average	3.0	3.2	3.3	3.8	3.2	3.1	

*No dealers submitted ratings for this category.

If "Other", please explain
(1 response)

Dealers did not provide substantial commentary in this section.

Please explain your responses, including any assumptions or underlying views. Reflecting on the recent drivers of financial markets, how do you expect financial market conditions to evolve going forward? Do you expect the recent improvement in financial conditions to sustain?
(19 responses)

In explaining their ratings, some dealers pointed to perceived accommodative global monetary policy as an important factor that may explain decreased financial market volatility since mid-February. In addition, several dealers noted the firming or stabilization of oil prices and diminished concerns over economic and financial developments in China and their impact on the global growth outlook as factors contributing to lower financial market volatility. Furthermore, several dealers highlighted recent (domestic and foreign) economic data prints and a resulting improved growth outlook as an important contributing factor. Separately, several respondents suggested that financial conditions are likely to tighten and that volatility may return going forward.

6. What are your expectations for the ON RRP facility over the next year?
(21 responses)

In their responses, some dealers expected increased aggregate ON RRP demand over the medium-term given they expect increased demand for short-term, high-quality assets as a result of money fund reform *implementation in the second half of the year. Additionally, several dealers suggested that aggregate ON RRP demand will remain near recent ranges in the near term. Additionally, some dealers expected that the Committee will reduce the aggregate ON RRP capacity from its current level in the future, potentially following money fund reform implementation in the second half of this year.*

7. **In its most recent FOMC statement, the Committee indicated that it anticipates continuing reinvestments “until normalization of the level of the federal funds rate is well under way.”**

a) **Provide your estimate for the most likely timing (in months forward) of a change to the Committee's policy on reinvesting payments of principal on Treasuries and/or agency debt and MBS. If you do not expect the FOMC to change its policy on reinvestments for either or both asset classes during the process of policy normalization, please enter "N/A."**

Months Forward

	Treasuries*	Agency Debt and MBS
25th Pctl	14	14
Median	18	18
75th Pctl	20	20

*Two dealers expect no end to reinvestments of Treasury securities, and one dealer expects no end to reinvestments of agency debt and MBS.

b) **What is your estimate for the most likely level of the target federal funds rate or range if and when the Committee first changes its reinvestment policy?**

	Level of Target Fed Funds Rate/Range
25th Pctl	1.13%
Median	1.38%
75th Pctl	1.50%

c) **In its Policy Normalization Principles and Plans, the Committee indicated that it "expects to cease or commence phasing out reinvestments" after liftoff. Of the possible outcomes below, please indicate the percent chance that 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.**

Treasuries

	No Change to Reinvestments	Reinvestments Ceased All at Once	Reinvestments Phased Out Over Time
Average	19%	15%	66%

Agency Debt and MBS

	No Change to Reinvestments	Reinvestments Ceased All at Once	Reinvestments Phased Out Over Time
Average	14%	16%	70%

d) i) **<u>Conditional on not moving to the ZLB at any point in 2016-2018</u>, what is your mean expectation for the par value of the SOMA portfolio at the end of 2018? For reference, the current level of the SOMA portfolio, including inflation compensation and settled and unsettled agency MBS according to the April 6, 2016, H.4.1, was $4271 billion.***

	SOMA Value at Year-end 2018 Conditional on Not Moving to ZLB ($ bn)
25th Pctl	3,562
Median	3,895
75th Pctl	4,091

ii) **<u>Conditional on moving to the ZLB at some point in 2016-2018</u>, what is your mean expectation for the par value of the SOMA portfolio at the end of 2018?**
(21 responses)

	SOMA Value at Year-end 2018 Conditional on Moving to ZLB ($ bn)
25th Pctl	4,271
Median	4,275
75th Pctl	4,766

**This level references the most recent H.4.1 release at the time this survey was sent out to respondents.*

Please explain the factors behind any change to your expectations in parts a-d since the last policy survey.
(14 responses)

Several dealers specifically noted that they made few significant changes to their responses in parts a-d since the last policy survey. Additionally, several dealers explained that they shifted out their expectation for the most likely timing of a change to the Committee's policy on reinvestments as a result of having revised later their expectations for the timing of additional rate hikes.

8. a) **Provide your estimate of the most likely outcome for output, inflation, and unemployment.**
(18 responses)

		Q4/Q4 2016	Q4/Q4 2017	Q4/Q4 2018	Longer Run
GDP:	25th Pctl	1.70%	2.00%	1.70%	1.75%
	Median	1.85%	2.20%	2.00%	1.90%
	75th Pctl	2.10%	2.50%	2.40%	2.20%
Core PCE Deflator:	25th Pctl	1.60%	1.80%	1.90%	
	Median	1.70%	1.90%	2.00%	
	75th Pctl	1.90%	2.00%	2.00%	
Headline PCE Deflator:	25th Pctl	1.40%	1.90%	2.00%	2.00%
	Median	1.55%	2.00%	2.00%	2.00%
	75th Pctl	1.70%	2.10%	2.20%	2.00%
Unemployment Rate*:	25th Pctl	4.60%	4.50%	4.60%	4.70%
	Median	4.70%	4.55%	4.70%	4.90%
	75th Pctl	4.80%	4.70%	4.80%	5.00%

Average level of the unemployment rate over Q4.

9. a) For the outcomes below, provide the percent chance* you attach to the annual average CPI inflation rate from April 1, 2016 - March 31, 2021. 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	4%	12%	31%	35%	13%	5%

Point estimate for most likely outcome:

	Most Likely Outcome
25th Pctl	2.00%
Median	2.10%
75th Pctl	2.20%

b) For the outcomes below, provide the percent chance you attach to the annual average CPI inflation rate from April 1, 2021 - March 31, 2026. 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	3%	10%	27%	38%	16%	6%

Point estimate for most likely outcome:

	Most Likely Outcome
25th Pctl	2.00%
Median	2.25%
75th Pctl	2.30%

10. a) What percent chance do you attach to the U.S. economy currently being in a recession*?
b) What percent chance do you attach to the U.S. economy being in a recession* in 6 months?
c) What percent chance do you attach to the global economy being in a recession in 6 months?**

	Currently in NBER Recession		NBER Recession in 6 Months		Global Recession in 6 Months
25th Pctl	5%	25th Pctl	10%	25th Pctl	10%
Median	5%	Median	15%	Median	20%
75th Pctl	10%	75th Pctl	20%	75th Pctl	30%

**NBER-defined recession*
***Previous IMF staff work has suggested that a "global recession" can be characterized as a period during which there is a decline in annual per-capita real global GDP, backed up by a decline or worsening in one or more of the following global macroeconomic indicators: industrial production, trade, capital flows, oil consumption and unemployment.*

Please explain the factors behind any change to your expectations in parts a-c since the last policy survey.
(12 responses)

Several dealers noted that their expected likelihood of a recession had increased given weak U.S. economic activity data in the first quarter of 2016.