RESPONSES TO SURVEY OF PRIMARY DEALERS

Markets Group, Federal Reserve Bank of New York

MAY 2017

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The **Survey of Primary Dealers** is formulated by the Trading Desk at the Federal Reserve Bank of New York to enhance policymakers' understanding of market expectations on a variety of topics related to the economy, monetary policy and financial markets. The questions involve only topics that are widely discussed in the public domain and never presume any particular policy action. FOMC participants are not involved in the survey's design.

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

Responses were received from 23 primary dealers. Except where noted, all 23 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.

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

List of Primary Dealers:
www.newyorkfed.org/markets/primarydealers

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1) Provide below your expectations for changes, if any, to the language referencing each of the following topics in the May FOMC statement.

Current economic conditions:

Several dealers expected that the Committee would acknowledge that economic activity had expanded at a slower pace during the first quarter of 2017, and several also expected the Committee to note recent lower-than-expected economic activity and/or inflation data. Additionally, several expected the Committee to note the slower pace of recent job gains, while several expected the Committee to acknowledge the recent decline in the unemployment rate. Several noted that the Committee could downgrade its characterization of household spending, while several expected the Committee to indicate that measures of consumer and business sentiment remained elevated. Lastly, several dealers suggested that the Committee could acknowledge that inflation had moved closer to or was only slightly below the Committee's longer-run objective of 2 percent, and several expected that the Committee could acknowledge that inflation excluding food and energy prices had recently decreased.

Economic outlook:
(21 responses)

Many dealers noted that they expected no or few significant changes to the Committee's language on the economic outlook.

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

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

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

Many dealers expected no change in the Committee's communication on its policy of reinvesting principal payments on Treasury and agency securities, while several dealers indicated that the Committee may acknowledge that a change to reinvestment policy could occur later this year.

Other:
(10 responses)

Several dealers noted that they expected no dissenting votes at the May FOMC meeting.

2) How would you grade the Federal Reserve System's communication with the markets and with the public since the policy survey on March 6? Please provide a rating between 1 and 5, with 1 indicating ineffectiveness and 5 indicating effectiveness.

	Number of Respondents
1 - Ineffective	**0**
2	**0**
3	**8**
4	**14**
5 - Effective	**1**

Please explain:
(21 responses)

Some dealers indicated that recent communication from Federal Reserve officials regarding the outlook for balance sheet normalization had generally been clear and effective. Several other dealers suggested that communication on this topic had been less effective, with several specifically noting a lack of clarity regarding policymakers' views on changes to reinvestment policy as potential substitutes for policy rate increases.

3a) 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.

	May 2-3 2017	Jun. 13-14 2017	Jul. 25-26 2017	Sep. 19-20 2017	Oct. 31 - Nov. 1 2017	Dec. 12-13 2017	Jan. 30-31 2018
25th Pctl	**0.88%**	**1.13%**	**1.13%**	**1.13%**	**1.13%**	**1.38%**	**1.38%**
Median	**0.88%**	**1.13%**	**1.13%**	**1.38%**	**1.38%**	**1.38%**	**1.38%**
75th Pctl	**0.88%**	**1.13%**	**1.13%**	**1.38%**	**1.38%**	**1.38%**	**1.38%**
# of Responses	**23**	**23**	**23**	**23**	**23**	**23**	**23**
	2018 Q1	2018 Q2	2018 Q3	2018 Q4	2019 Q1	2019 Q2	2019 H2
25th Pctl	**1.38%**	**1.63%**	**1.88%**	**2.13%**	**1.88%**	**2.13%**	**2.50%**
Median	**1.63%**	**1.63%**	**1.88%**	**2.13%**	**2.38%**	**2.63%**	**2.63%**
75th Pctl	**1.63%**	**1.88%**	**2.13%**	**2.38%**	**2.38%**	**2.63%**	**2.88%**
# of Responses	**23**	**23**	**23**	**23**	**19**	**19**	**19**

3b) 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	**2.63%**	**2.25%**
Median	**3.00%**	**2.50%**
75th Pctl	**3.00%**	**2.75%**

3c) Please indicate the percent chance that you attach to the following possible outcomes for the Committee's next policy action in 2017.

	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 2017
Average	**88%**	**3%**	**9%**

3d) Conditional on the Committee's next policy action in 2017 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 Committee’s next policy action in 2017 being an increase.

	Increase Occurs at May FOMC meeting	Increase Occurs at June FOMC meeting	Increase Occurs at July FOMC meeting or later
Average	**6%**	**62%**	**32%**

3e) 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, conditional on the following possible scenarios for the direction and timing of the Committee's next poicy action in 2017. 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.

Next change is an increase, occurs at June meeting or earlier								
	≤ 0.50%	0.51 - 0.75%	0.76 - 1.00%	1.01 - 1.25%	1.26 - 1.50%	1.51 - 1.75%	1.76 - 2.00%	≥ 2.01%
Average	**2%**	**2%**	**6%**	**22%**	**46%**	**19%**	**3%**	**0%**

Next change is an increase, occurs at July meeting or later								
	≤ 0.50%	0.51 - 0.75%	0.76 - 1.00%	1.01 - 1.25%	1.26 - 1.50%	1.51 - 1.75%	1.76 - 2.00%	≥ 2.01%
Average	**2%**	**3%**	**9%**	**41%**	**35%**	**9%**	**1%**	**0%**

Next change is a decrease								
	< 0.0%	0.00 - 0.25%	0.26 - 0.50%	0.51 - 0.75%	0.76 - 1.00%	1.01 - 1.25%	1.26 - 1.50%	≥ 1.51%
Average	**6%**	**41%**	**35%**	**17%**	**2%**	**0%**	**0%**	**0%**

3f-i) 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 2018 and 2019, conditional on **not** moving to the zero lower bound (ZLB) at any point between now and the end of 2019. If you expect a target range, please use the midpoint of that range in providing your response.
(21 responses)

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	**5%**	**10%**	**27%**	**38%**	**15%**	**4%**	**1%**

Year-end 2019							
	≤ 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	**5%**	**6%**	**14%**	**26%**	**30%**	**12%**	**7%**

3f-ii) Please indicate the percent chance that you attach to moving to the ZLB at some point between now and the end of 2019.

	Probability of Moving to ZLB at Some Point between now and the end of 2019
25th Pctl	**10.00%**
Median	**20.00%**
75th Pctl	**25.00%**

3f-iii) 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 2018 and 2019, conditional on moving to the ZLB at some point between now and the end of 2019. Only fill out these conditional probability distributions if you assigned a non-zero probability to moving to the ZLB at some point between now and the end of 2019. If you expect a target range, please use the midpoint of that range in providing your response.
(20 responses)

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	**4%**	**37%**	**18%**	**12%**	**11%**	**9%**	**6%**	**3%**

Year-end 2019								
	< 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%**	**51%**	**20%**	**11%**	**7%**	**3%**	**2%**	**1%**

3f-iv) What is your estimate of the target federal funds rate or range at the effective lower bound?

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

3g) For parts a-f, please explain the factors behind any change to your expectations, where applicable, since the last policy survey.
(22 responses)

Several dealers reported that they revised their responses to reflect a faster expected pace of policy tightening and/or an increased probability of higher policy rate outcomes. Several dealers reported that there were no or few significant changes to their responses since the last policy survey.

4) Previous FOMC communication has indicated that the economy's neutral 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 at or near its potential, is currently low by historical standards. Please provide your estimate for the current level of the neutral real federal funds rate and at each of the time periods below.
(21 responses)

Level of Neutral Real Fed Funds Rate				
	Current Level	Year-end 2017	Year-end 2018	Year-end 2019
25th Pctl	**0.00%**	**0.00%**	**0.50%**	**0.75%**
Median	**0.00%**	**0.50%**	**1.00%**	**1.00%**
75th Pctl	**0.50%**	**1.00%**	**1.25%**	**1.50%**

Please explain the factors behind any changes to your estimates since the policy survey on December 5 when this question was last asked.
(19 responses)

Some dealers indicated that there were no or few significant changes to their estimates since the policy survey on December 5.

5) Please indicate the percent chance that you attach to the 10-year Treasury yield falling in each of the following ranges at the end of 2017 and 2018.

Year-end 2017							
	≤ 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	**4%**	**10%**	**27%**	**36%**	**16%**	**5%**	**1%**

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	**3%**	**7%**	**16%**	**31%**	**28%**	**11%**	**5%**

6a) In its Policy Normalization Principles and Plans, the Committee indicated that it "expects to cease or commence phasing out reinvestments" after liftoff. Please indicate the percent chance that you attach to the Committee ceasing its reinvestments all at once, phasing out its reinvestments over time, or not changing its reinvestments.

Treasuries			
	Reinvestments Ceased All at Once	Reinvestments Phased Out Over Time	No Change to Reinvestments
Average	**14%**	**72%**	**14%**

Agency Debt and MBS			
	Reinvestments Ceased All at Once	Reinvestments Phased Out Over Time	No Change to Reinvestments
Average	**20%**	**71%**	**9%**

6b) In recent FOMC statements, the Committee has indicated that it anticipates continuing its current reinvestment policy until normalization of the level of the federal funds rate is "well under way."

Conditional on reinvestments either being ceased all at once or phased out over time, please indicate the percent chance that you attach to the following outcomes for the level of the target federal funds rate or range when the Committee first announces a change to its reinvestment policy. Only fill out this probability distribution if you assigned a non-zero probability to reinvestments either being ceased all at once or phased out over time in question 6a. If you expect a target range, please use the midpoint of that range in providing your response.

	≤ 0.75%	0.76 - 1.00%	1.01 - 1.25%	1.26 - 1.50%	1.51 - 1.75%	1.76 - 2.00%	≥ 2.01%
Average	**0%**	**3%**	**23%**	**43%**	**22%**	**6%**	**2%**

Additionally, please provide your point estimate for the most likely outcome of the level of the target federal funds rate or range when the Committee first announces a change to its reinvestment policy. If you expect a target range, please use the midpoint of that range in providing your response.

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

6c) Conditional on reinvestments either being ceased all at once or phased out over time, please indicate the percent chance that you attach to the following possible outcomes for the timing of when the Committee first announces a change to its reinvestment policy. Only fill out this probability distribution if you assigned a non-zero probability to reinvestments either being ceased all at once or phased out over time in 6a.

	May 2-3 FOMC meeting	June 13-14 FOMC meeting	Q3 2017	Q4 2017	Q1 2018	Q2 2018	H2 2018	≥ 2019
Average	**0%**	**4%**	**17%**	**40%**	**23%**	**8%**	**4%**	**3%**

6d) Conditional on reinvestments being phased out over time, please indicate the most likely number of months over which you expect this to occur. Please only provide a response if you assigned a non-zero probability to reinvestments being phased out over time in 6a.

	Treasuries	Agency Debt and MBS
25th Pctl	**9**	**9**
Median	**12**	**12**
75th Pctl	**18**	**18**

Please describe the specific strategy or strategies that you think would be most likely should the Committee phase reinvestments out over time.
(22 responses)

Several dealers indicated that the Committee could phase out reinvestments by lowering the proportion of principal payments reinvested each month, while several others indicated that they expect the amount of principal payments reinvested to be reduced by a fixed dollar amount each month. Lastly, several dealers indicated that they expect the Committee to pursue the same strategy of phasing out reinvestments for both Treasury and agency securities, while several indicated that the Committee could pursue different strategies.

6e-i) Please indicate the percent chance that you attach to the following possible outcomes for the par value of the SOMA portfolio at the end of 2019, conditional on **not** moving to the ZLB at any point between now and the end of 2019. For reference, the level of the SOMA portfolio on April 12, 2017 was $4277 billion, including inflation compensation and settled and unsettled agency MBS, according to the most recent H.4.1 release. Levels referenced below are in $ billions.

	≤ 3000	3001 - 3500	3501 - 4000	4001 - 4500	≥ 4501
Average	**8%**	**31%**	**42%**	**17%**	**2%**

6e-ii) Please indicate the percent chance that you attach to the following possible outcomes for the par value of the SOMA portfolio <u>at the end of 2019, conditional on moving to the ZLB at any point between now and the end of 2019</u>. Only fill out this conditional probability distribution if you assigned a non-zero probability to moving to the ZLB at some point between now and the end of 2019 in question 3. Levels referenced below are in $ billions.
(22 responses)

	≤ 4000	4001 - 4500	4501 - 5000	5001 - 5500	≥ 5501
Average	**11%**	**40%**	**26%**	**15%**	**9%**

6f) Please explain the factors behind any change to your views, where applicable, since the last policy survey.
(17 responses)

Several dealers noted that they either moved earlier their modal forecast for the timing of when the Committee announces a change to its reinvestment policy or assigned a greater probability to a change occurring in 2017, with several citing recent Federal Reserve communication as informing the change in their expectations.

7a) On average during 2016, the size of the Federal Reserve System's balance sheet was around $4,472 billion and was composed roughly as follows:

Assets		Liabilities	
US Treasuries	55%	Reserves	52%
Agency MBS	39%	Federal Reserve Notes	32%
All Other Assets	6%	All Other Liabilities and Capital	16%

**Includes net unamortized premiums and discounts on securities held outright (4 percent); repos (0 percent); and other assets (2 percent).*
***Includes deposits in US Treasury General Account (7 percent); open market reverse repos (2 percent); reverse repos with foreign official accounts (5 percent); other deposits, including those held at Reserve Banks by international and multilateral organizations, GSEs, and designated financial market utilities (1 percent); and other liabilities and capital (1 percent).*

The figures above refer to averages of Wednesday levels from 2016 H.4.1 releases. For further details, see also the "Report on Domestic Open Market Operations during 2016" prepared by the Markets Group of the Federal Reserve Bank of New York.

Please indicate your expectation for the most likely composition of the Federal Reserve System's balance sheet, on average, in 2025, conditional on not moving to the ZLB at any point between now and the end of 2025.
(21 responses)

Assets	Average	Liabilities	Average
US Treasuries	76%	Reserves	22%
Agency MBS	18%	Federal Reserve Notes	62%
All Other Assets	6%	All Other Liabilities and Capital	16%

7b) Additionally, please indicate your expectation for the most likely size ($ billions) of the Federal Reserve balance sheet, on average, in 2025, conditional on not moving to the ZLB at any point between now and the end of 2025.
(21 responses)

	Size of Federal Reserve Balance Sheet in 2025
25th Pctl	2750
Median	3127
75th Pctl	3820

7c) Please explain any assumptions underlying your responses to 7a and 7b.
(21 responses)

Several dealers noted that they assumed that the level of reserves, on average, in 2025 would be larger than was the case pre-crisis, with several noting that they assumed this level could be $500 billion. Several dealers noted that they assumed that the level of Federal Reserve notes would grow at an annual rate of 6 to 7 percent, consistent with recent trends, while several others indicated that they assumed that the level of notes would grow at a rate similar to expected nominal GDP.

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

		Q4/Q4 2017	Q4/Q4 2018	Q4/Q4 2019	Longer Run
GDP	25th Pctl	**2.00%**	**2.10%**	**1.80%**	**1.70%**
	Median	**2.20%**	**2.40%**	**2.05%**	**1.85%**
	75th Pctl	**2.30%**	**2.70%**	**2.35%**	**2.00%**
Core PCE Deflator	25th Pctl	**1.80%**	**2.00%**	**2.00%**	**-**
	Median	**1.90%**	**2.00%**	**2.00%**	**-**
	75th Pctl	**2.00%**	**2.20%**	**2.20%**	**-**
Headline PCE Deflator	25th Pctl	**1.80%**	**1.90%**	**2.00%**	**2.00%**
	Median	**2.00%**	**2.10%**	**2.10%**	**2.00%**
	75th Pctl	**2.00%**	**2.30%**	**2.25%**	**2.00%**
Unemployment Rate*	25th Pctl	**4.40%**	**4.10%**	**4.35%**	**4.50%**
	Median	**4.50%**	**4.30%**	**4.45%**	**4.80%**
	75th Pctl	**4.60%**	**4.40%**	**4.60%**	**5.00%**

**Average level of the unemployment rate over Q4.*

8b) Provide your estimate of the most likely outcome for the U.S. federal fiscal deficit (as a percent of GDP) for fiscal years 2017, 2018 and 2019.
(19 responses)

	FY 2017	FY 2018	FY 2019
25th Pctl	**3.10%**	**3.35%**	**3.50%**
Median	**3.20%**	**3.60%**	**4.00%**
75th Pctl	**3.40%**	**3.80%**	**4.50%**

Please explain any changes to your estimates since the last policy survey.
(19 responses)

Some dealers indicated that they made no or few significant changes to their expectations for the U.S. federal fiscal deficit since the last policy survey.

8c) Please indicate the overall effect of any changes to your estimates for the federal fiscal deficit since the last policy survey on your forecasts for GDP growth (Q4/Q4) in 2017, 2018 and 2019 and over the longer run, combining direct and indirect effects. Please provide your responses in percentage points.
(16 responses)

	2017	2018	2019	Longer Run
25th Pctl	**0.00**	**0.00**	**0.00**	**0.00**
Median	**0.00**	**0.00**	**0.00**	**0.00**
75th Pctl	**0.00**	**0.00**	**0.00**	**0.00**

9a) For the outcomes below, provide the percent chance you attach to the annual average CPI inflation rate from April 1, 2017 - March 31, 2022 falling in each of the following ranges. 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%**	**11%**	**27%**	**38%**	**16%**	**5%**

	Most Likely Outcome
25th Pctl	**2.10%**
Median	**2.20%**
75th Pctl	**2.30%**

9b) For the outcomes below, provide the percent chance you attach to the annual average CPI inflation rate from April 1, 2022 – March 31, 2027 falling in each of the following ranges. 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%**	**26%**	**38%**	**17%**	**6%**

	Most Likely Outcome
25th Pctl	**2.10%**
Median	**2.30%**
75th Pctl	**2.30%**

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

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

10c) 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	**2%**	25th Pctl	**10%**	25th Pctl	**10%**
Median	**5%**	Median	**10%**	Median	**10%**
75th Pctl	**5%**	75th Pctl	**15%**	75th Pctl	**15%**

**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.*

10d) Please explain the factors behind any change to your expectations in parts a-c since the last policy survey.
(16 responses)

Some dealers reported that they made no or few significant changes to their responses since the last policy survey.