### **RESPONSES TO SURVEY OF MARKET PARTICIPANTS**

Markets Group, Federal Reserve Bank of New York



### MAY 2017

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The **Survey of Market Participants** 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.<sup>1</sup> For questions that ask respondents to give a probability distribution, the average response across respondents for each potential outcome is reported. Brief summaries of the comments received in free response form are also provided.

Responses were received from 27 respondents. Except where noted, all 27 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.

List of Market Participants: www.newyorkfed.org/markets/survey\_market\_participants.html

<sup>&</sup>lt;sup>1</sup> Answers may not sum to 100 percent due to rounding.

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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 respondents indicated that they expected no or few significant changes to the Committee's assessment of current economic conditions in the May FOMC statement. Several respondents suggested that the Committee could acknowledge that economic activity had expanded at a slower pace during the first quarter of 2017, while several indicated that the Committee could attribute this to transitory factors. Several respondents also noted that the Committee would likely acknowledge the recent decline in the unemployment rate. Lastly, several respondents noted that they expected the Committee to acknowledge an improvement in business fixed investment.

Economic outlook: (25 responses)

Many respondents 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:

#### (25 responses)

Many respondents noted that they 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:

#### (26 responses)

Many respondents noted that they expected no change in the Committee's communication on its policy of reinvesting principal payments on Treasury and agency securities. Several respondents indicated that the Committee might acknowledge that a change to reinvestment policy could occur later this year.

Other:

(6 responses)

Respondents did not provide substantial commentary in this section.

**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.

#### (26 responses)

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

# Please explain: (22 responses)

Several respondents indicated that recent communication from Federal Reserve officials regarding the outlook for balance sheet normalization had generally been clear and effective. Several other respondents suggested that communication on this topic had not been been 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%
	2018 Q1	2018 Q2	2018 Q3	2018 Q4	2019 Q1	2019 Q2	2019 H2
25th Pctl	1.38%	1.63%	1.63%	1.88%	2.13%	2.13%	2.13%
Median	1.63%	1.88%	1.88%	2.13%	2.38%	2.38%	2.63%
75th Pctl	1.63%	1.88%	2.13%	2.38%	2.63%	2.88%	3.13%

**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	2.50%	1.85%
Median	2.75%	2.40%
75th Pctl	3.13%	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	Next Change is	No Change in Target
	Increase in Target	Decrease in Target	Rate or Range in
	Rate or Range	Rate or Range	2017
Average	89%	2%	9%

**3d)** Conditional on the Committee's next policy action in 2017 being an <u>increase</u> 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 June FOMC meeting	Increase Occurs at July FOMC meeting or later
Average	5%	62%	33%

**3e)** 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</u>, 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%		1.01 - 1.25%				≥ 2.01%		
Average	1%	2%	6%	24%	40%	19%	4%	2%		

Next change is an increase, occurs at July meeting or later										
				1.01 -			1.76 -			
	≤ 0.50%	0.75%	1.00%	1.25%	1.50%	1.75%	2.00%	≥ 2.01%		
Average	2%	3%	<b>10%</b>	38%	33%	<b>10%</b>	3%	2%		

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%		≥ 1.51%		
Average	7%	35%	28%	27%	2%	1%	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 <u>at the end of 2018 and 2019</u>, 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.

Year-end 2018										
		1.01-	1.51-	2.01-	2.51-	3.01-				
	≤ 1.00%	1.50%	2.00%	2.50%	3.00%	3.50%	≥ 3.51%			
Average	5%	12%	<b>29%</b>	<b>30%</b>	<b>16%</b>	<b>6%</b>	2%			
			Year-e	nd 2019						
		1.01-	1.51-	2.01-	2.51-	3.01-				
	≤ 1.00%	1.50%	2.00%	2.50%	3.00%	3.50%	≥ 3.51%			
Average	5%	9%	16%	23%	24%	15%	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	5.00%
Median	18.00%
75th Pctl	30.00%

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. (26 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	7%	51%	21%	9%	6%	4%	3%	1%		

Year-end 2019								
		0.00-	0.26-	0.51-	1.01-	1.51-	2.01-	
	< 0.00%	0.25%	0.50%	1.00%	1.50%	2.00%	2.50%	≥ 2.51%
Average	11%	64%	15%	7%	2%	1%	0%	0%

**3f-iv)** What is your estimate of the target federal funds rate or range at the effective lower bound? (26 responses)

	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.

#### (21 responses)

Several respondents reported that they adjusted their expectations for the timing and/or pace of future target rate hikes in response to changes to their expectations for reinvestment policy and/or recent Federal Reserve communication. Several respondents 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.

#### (26 responses)

	Current Level	Year-end 2017	Year-end 2018	Year-end 2019
25th Pctl	0.00%	0.25%	0.50%	0.50%
Median	0.25%	0.50%	0.64%	0.94%
75th Pctl	0.63%	1.25%	1.50%	<b>1.50%</b>

Please explain the factors behind any changes to your estimates since the policy survey on December 5 when this question was last asked. (20 responses)

Some respondents indicated that there were no or few significant changes to their estimates since the policy survey on December 5. However, several respondents cited changes to their expectations for fiscal stimulus and its corresponding impact on potential GDP growth as leading them to adjust their responses.

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	6%	13%	26%	33%	15%	<b>5%</b>	1%
			Year-e	nd 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	7%	10%	18%	<b>29%</b>	22%	9%	4%

**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.

#### (26 responses)

		Treasuries	
	Reinvestments Ceased All at Once	Reinvestments Phased Out Over Time	No Change to Reinvestments
Average	9%	78%	13%
	Age	ncy Debt and MBS	
	Reinvestments Ceased All at Once	Reinvestments Phased Out Over Time	No Change to Reinvestments
Average	13%	80%	7%

**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 <u>ceased all at once</u> or <u>phased out over time</u>, 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 <u>ceased all at once</u> or <u>phased out over time</u> in question 6a. If you expect a target range, please use the midpoint of that range in providing your response.

#### (26 responses)

	≤ 0.75%				1.51 - 1.75%		≥ 2.01%
Average	0%	2%	20%	38%	24%	11%	4%

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. (26 responses)

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

**6c)** Conditional on reinvestments either being <u>ceased all at once</u> or <u>phased out over time</u>, 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 <u>ceased all at once</u> or <u>phased out over time</u> in 6a.

(26 responses)

	FOMC	June 13- 14 FOMC						
	meeting	meeting	Q3 2017	Q4 2017	Q1 2018	Q2 2018	H2 2018	≥ 2019
Average	1%	5%	15%	35%	21%	13%	6%	3%

**6d)** Conditional on reinvestments being <u>phased out over time</u>, 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 <u>phased out over time</u> in 6a.

#### (24 responses)

	Treasuries	Agency Debt and MBS
25th Pctl	9	8
Median	12	12
75th Pctl	18	15

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

#### (25 responses)

Several respondents 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 respondents 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 <u>at the end of 2019</u>, <u>conditional on not moving to the ZLB at any point</u> 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. (24 responses)

	≤ 3000	3001 - 3500	3501 - 4000	4001 - 4500	≥ 4501
Average	13%	28%	37%	19%	3%

6e-ii) 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 moving to the ZLB at any point between now and the end of 2019. 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.

#### (24 responses)

	≤ 4000	4001 - 4500	4501 - 5000	5001 - 5500	≥ 5501	
Average	13%	23%	26%	26%	13%	

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

(20 responses)

Several respondents indicated that there were no or few significant changes to their expectations regarding reinvestment policy. However, several respondents 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 Fed communication as informing the change in their expectations.

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.
(24 responses)

	FY 2017	FY 2018	FY 2019
25th Pctl	3.00%	3.39%	3.60%
Median	3.20%	3.50%	4.00%
75th Pctl	3.40%	4.30%	5.00%

Please explain any changes to your estimates since the last policy survey. (7 responses)

Respondents did not provide substantial commentary in this section.

**8a)** 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	5%	12%	28%	31%	15%	8%
			Most Likely Outcome			
		25th Pc	tl <b>1.</b> 9	90%		
		Median	Median <b>2.10%</b>			
		75th Pc	tl <b>2.</b> 3	30%		

**8b)** 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	5%	12%	24%	31%	18%	10%
			Most I Outc			
		25th Pct	2.0	0%		
		Median	2.2	0%		
		75th Pct	2.3	0%		