RESPONSES TO SURVEY OF PRIMARY DEALERS

Markets Group, Federal Reserve Bank of New York

JULY 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 complete responses (e.g. 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 July FOMC statement.

Current economic conditions:

Several dealers indicated that they expected no or few significant changes to the Committee's characterization of current economic conditions. However, several others indicated that they expected the Committee to acknowledge continued slowing in inflation and continued improvement in the labor market. Additionally, several dealers indicated that the Committee could remove language in the statement noting that job gains had moderated and several suggested that the word "somewhat" could be removed from the Committee's language stating that measures of inflation are running below 2 percent. Lastly, several respondents indicated that they expected the Committee to note that household spending had moderated.

Economic outlook:
(21 responses)

Many dealers indicated that they expected no or few significant changes to the Committee's characterization of the economic outlook.

Communication on the expected path of the target fed funds rate:
(22 responses)

All dealers that submitted responses to this question indicated that they expected no or few significant changes to the Committee's communication on the expected path of the target fed funds rate.

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

Several dealers expected no or few significant changes to the Committee's communication on its policy of reinvesting principal payments on Treasury and agency securities, while some other dealers expected the Committee could signal that a change to reinvestment policy was approaching. Several dealers specifically suggested that the Committee could indicate that it expects to begin implementing a balance sheet normalization program "soon" or "relatively soon" rather than "this year."

Other:
(8 responses)

Dealers 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 June 5? Please provide a rating between 1 and 5, with 1 indicating ineffectiveness and 5 indicating effectiveness.

	Number of Respondents
1 - Ineffective	1
2	2
3	10
4	8
5 - Effective	2

Please explain:

Since the policy survey on June 5, some dealers characterized communication around the timing and nature of expected changes to reinvestment policy as clear and effective. On the other hand, several dealers indicated that communication regarding the inflation outlook had been less clear, given apparent differences in views among FOMC participants regarding whether or not the recent softness in inflation data was likely to be transitory.

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 below. For the time periods at which you expect a target range, please indicate the midpoint of that range in providing your response.

	Jul. 25-26 2017	Sep. 19-20 2017	Oct. 31 - Nov. 1 2017	Dec. 12-13 2017	Jan. 30-31 2018	Mar. 20-21 2018	May 1-2 2018
25th Pctl	1.13%	1.13%	1.13%	1.38%	1.38%	1.38%	1.38%
Median	1.13%	1.13%	1.13%	1.38%	1.38%	1.63%	1.63%
75th Pctl	1.13%	1.13%	1.13%	1.38%	1.38%	1.63%	1.63%
# of Responses	23	23	23	23	23	23	23
	2018 Q2	2018 Q3	2018 Q4	2019 Q1	2019 Q2	2019 Q3	2019 Q4
25th Pctl	1.63%	1.88%	1.88%	2.13%	2.13%	2.13%	2.38%
Median	1.63%	1.88%	2.13%	2.38%	2.38%	2.38%	2.50%
75th Pctl	1.88%	2.13%	2.13%	2.38%	2.63%	2.88%	2.88%
# of Responses	23	23	23	21	21	21	21

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%**	**2.00%**
Median	**2.75%**	**2.38%**
75th Pctl	**3.00%**	**2.73%**

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	**65%**	**3%**	**32%**

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 July FOMC meeting	Increase Occurs at September FOMC meeting	Increase Occurs at Oct./Nov. FOMC meeting or later
Average	**1%**	**20%**	**79%**

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 policy 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 September 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	**0%**	**0%**	**1%**	**5%**	**66%**	**24%**	**2%**	**0%**

Next change is an increase, occurs at Oct./Nov. 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	**0%**	**0%**	**1%**	**8%**	**83%**	**7%**	**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	**3%**	**11%**	**12%**	**31%**	**42%**	**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 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%**	**11%**	**32%**	**39%**	**10%**	**2%**	**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%**	**8%**	**18%**	**29%**	**25%**	**11%**	**4%**

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	**15%**
Median	**20%**
75th Pctl	**25%**

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	**6%**	**40%**	**17%**	**13%**	**11%**	**7%**	**4%**	**2%**

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	**14%**	**50%**	**17%**	**10%**	**6%**	**2%**	**1%**	**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	**-0.35%**
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.
(20 responses)

Several dealers indicated that they made no or few significant changes to their responses. However, several indicated that they decreased the probability they assigned to a third rate hike occurring this year compared to the prior survey and several indicated that recent slowing in measures of inflation caused them to revise downward their target rate expectations. Furthermore, several dealers shifted later their modal forecast for the timing of the next increase in the target range from September to December.

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.
(22 responses)

	Current Level	Year-end 2017	Year-end 2018	Year-end 2019
25th Pctl	**0.00%**	**0.00%**	**0.30%**	**0.50%**
Median	**0.06%**	**0.25%**	**0.63%**	**1.00%**
75th Pctl	**0.50%**	**0.75%**	**1.25%**	**1.90%**

Please explain the factors behind any changes to your estimates since the policy survey on April 24. (19 responses)

Some dealers indicated that they had made no or few significant changes to their estimates since the policy survey on April 24.

5) The following matrix lays out hypothetical scenarios in which the realized levels of the 2018 unemployment rate (Q4 average level) and 2018 core PCE inflation (Q4/Q4 growth) are either 50 basis points above, below, or equal to the medians of FOMC participants' projections for these indicators in the June Summary of Economic Projections (SEP). For example, the upper left box represents a scenario in which the unemployment rate and core PCE inflation 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 core PCE inflation is 50 basis points below the current median.

For each of the following scenarios, please indicate the level of the target federal funds rate or range that you expect would prevail at the end of Q1 2019. If you expect a target range, please indicate the midpoint of that range in providing your response.

25th Percentile Responses

		2018 Unemployment rate (Q4 average level)		
		- 50 bps	Current median 4.2%	+ 50 bps
2018 Core PCE inflation (Q4/Q4 growth)	- 50 bps	**1.50%**	**1.38%**	**1.25%**
	Current median 2.0%	**2.38%**	**2.13%**	**1.63%**
	+ 50 bps	**2.75%**	**2.38%**	**2.13%**

Median Responses

		2018 Unemployment rate (Q4 average level)		
		- 50 bps	Current median 4.2%	+ 50 bps
2018 Core PCE inflation (Q4/Q4 growth)	- 50 bps	**1.88%**	**1.63%**	**1.38%**
	Current median 2.0%	**2.63%**	**2.13%**	**1.88%**
	+ 50 bps	**3.13%**	**2.63%**	**2.38%**

75th Percentile Responses		2018 Unemployment rate (Q4 average level)		
		- 50 bps	Current median 4.2%	+ 50 bps
2018 Core PCE inflation (Q4/Q4 growth)	- 50 bps	2.13%	1.88%	1.63%
	Current median 2.0%	2.88%	2.38%	2.13%
	+ 50 bps	3.25%	2.88%	2.50%

Please explain any assumptions underlying your responses.
(21 responses)

In explaining their responses, several dealers noted that they assumed a larger response in the level of the target federal funds rate or range to a 50 basis point shock to core PCE inflation than to a 50 basis point shock to the unemployment rate.

6a) 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	3%	12%	40%	34%	9%	2%	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	4%	8%	22%	34%	22%	7%	2%

6b) Please rate the importance of the following factors in explaining changes to your forecasts for the 10-year Treasury yield at the end of 2017 and 2018 since the policy survey on December 5 (5=very important, 1=not important). Please provide responses only if you changed your forecasts.
(22 responses)

2017	Changes in outlook for U.S. economic growth	Changes in outlook for U.S. inflation	Changes in outlook for U.S. fiscal policy	Changes in outlook for Federal Reserve's balance sheet	Changes in perception of the neutral nominal fed funds rate	Changes in perception of the FOMC's reaction function	Changes in outlook for foreign growth/inflation	Changes in outlook for foreign monetary policy	Other
1 - Not Important	4	0	4	6	11	8	5	4	2
2	5	1	2	8	5	4	5	2	0
3	6	7	4	2	3	2	8	6	1
4	4	6	5	1	1	3	1	5	1
5 - Very Important	1	7	6	4	0	3	1	3	1
# of Responses	20	21	21	21	20	20	20	20	5

If other, please explain.
(4 responses)

Dealers did not provide substantial commentary in this section.

2018	Changes in outlook for U.S. economic growth	Changes in outlook for U.S. inflation	Changes in outlook for U.S. fiscal policy	Changes in outlook for Federal Reserve's balance sheet	Changes in perception of the neutral nominal fed funds rate	Changes in perception of the FOMC's reaction function	Changes in outlook for foreign growth/inflation	Changes in outlook for foreign monetary policy	Other
1 - Not Important	3	0	1	4	10	7	4	4	3
2	7	1	5	8	7	7	5	3	0
3	3	8	5	3	2	2	9	6	0
4	6	7	5	3	1	1	1	4	1
5 - Very Important	1	5	5	3	0	3	1	3	1
# of Responses	20	21	21	21	20	20	20	20	5

If other, please explain.
(4 responses)

Dealers did not provide substantial commentary in this section.

6c) As of July 12th, 2017, the current level of the 10-year U.S. Treasury yield was 2.32 percent. Please decompose this level into the following components. Please ensure that your sum matches 2.32 percent. Please also ensure that your signs are correct.
(22 responses)

	Market Expectations for Average Real Policy Rate	Market Expectations for Average Inflation Rate	Market-Implied Nominal Term Premium	Current level of the 10-year U.S. Treasury yield
Average	0.57%	1.78%	-0.03%	2.32%

7a) The June FOMC minutes reported that FOMC participants "noted that...it would likely become appropriate later this year for the Committee to announce and implement a specific timetable for its program of reducing reinvestment of the Federal Reserve's securities holdings." Please indicate the percent chance that you attach to the following possible outcomes for when the Committee first announces a change to its reinvestment policy. Additionally, please indicate the probability that you assign to "no change" to reinvestments occurring.

	Jul. 25-26 FOMC	Sep. 19-20 FOMC	Oct. 31-Nov. 1 FOMC	Dec. 12-13 FOMC	Q1 2018	Q2 2018	≥ H2 2018	No Change
Average	11%	60%	10%	13%	2%	1%	1%	2%

7b) Please explain the factors behind any change to your views in part a since the last policy survey.
(22 responses)

Several dealers indicated that they shifted their modal forecast for the timing of an announcement regarding a change to the Committee's reinvestment policy to the September meeting or assigned increased probability to such an announcement occurring in September. In explaining changes to their expectations, some dealers pointed to recent communications perceived as signaling that the Committee prefers to soon begin reducing the size of the Federal Reserve System's balance sheet, including the June FOMC statement, minutes, and addendum to the Policy Normalization Principles and Plans, as well as recent speeches from FOMC participants.

7c) In the addendum to the Policy Normalization Principles and Plans, the Committee outlined its approach for reducing the Federal Reserve's holdings of Treasury and agency securities. What are your estimates

for the cumulative effects (in basis points) on the 10-year Treasury yield and 30-year production coupon MBS-option adjusted spread over the two year period following the implementation of this approach?
(21 responses)

	10-Year Treasury Yield	30-Year MBS Option-Adjusted Spread
25th Pctl	**20**	**10**
Median	**28**	**15**
75th Pctl	**50**	**20**

8a) 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 July, 5th 2017 was $4270 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	**4%**	**45%**	**40%**	**8%**	**2%**

8b) 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.
(22 responses)

	≤ 4000	4001 - 4500	4501 - 5000	5001 - 5500	≥ 5501
Average	**13%**	**40%**	**28%**	**14%**	**4%**

9a) Provide your estimate of the most likely outcome for output, inflation, and unemployment.
(18 responses)

		Q4/Q4 2017	Q4/Q4 2018	Q4/Q4 2019	Longer Run
GDP	25th Pctl	**2.10%**	**2.10%**	**1.70%**	**1.70%**
	Median	**2.20%**	**2.20%**	**1.95%**	**1.80%**
	75th Pctl	**2.30%**	**2.50%**	**2.30%**	**2.00%**
Core PCE Deflator	25th Pctl	**1.50%**	**1.90%**	**2.00%**	**-**
	Median	**1.60%**	**1.90%**	**2.00%**	**-**
	75th Pctl	**1.70%**	**2.20%**	**2.20%**	**-**
Headline PCE Deflator	25th Pctl	**1.50%**	**1.90%**	**2.00%**	**2.00%**
	Median	**1.50%**	**1.90%**	**2.05%**	**2.00%**
	75th Pctl	**1.70%**	**2.20%**	**2.20%**	**2.00%**
Unemployment Rate*	25th Pctl	**4.20%**	**3.90%**	**4.00%**	**4.50%**
	Median	**4.20%**	**4.10%**	**4.15%**	**4.60%**
	75th Pctl	**4.30%**	**4.20%**	**4.30%**	**5.00%**

9b) 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.
(20 responses)

	FY 2017	FY 2018	FY 2019
25th Pctl	**3.10%**	**3.20%**	**3.36%**
Median	**3.44%**	**3.50%**	**3.85%**
75th Pctl	**3.60%**	**3.70%**	**4.05%**

Please explain any changes to your estimates since the policy survey on June 5.
(19 responses)

Some dealers noted that they increased their estimates of the fiscal deficit for fiscal year 2017 given recent lower-than-expected revenue and higher-than-expected outlays for this fiscal year. Several dealers indicated that they had made no or few significant changes to their estimates since the last policy survey, while several dealers noted that they decreased their estimates given a lower perceived likelihood of fiscal stimulus measures.

9c) 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.
(19 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%**

10a) For the outcomes below, provide the percent chance you attach to the annual average <u>CPI inflation</u> rate from July 1, 2017 - June 30, 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%**	**28%**	**40%**	**13%**	**5%**

	Most Likely Outcome
25th Pctl	**2.00%**
Median	**2.20%**
75th Pctl	**2.25%**

10b) For the outcomes below, provide the percent chance you attach to the annual average <u>CPI inflation</u> rate from July 1, 2022 - June 30, 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	**4%**	**10%**	**24%**	**41%**	**15%**	**6%**

	Most Likely Outcome
25th Pctl	**2.10%**
Median	**2.25%**
75th Pctl	**2.30%**

10c) For the outcomes below, provide the percent chance you attach to the <u>PCE inflation</u> rate from July 1, 2019 - June 30, 2020 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	**4%**	**16%**	**39%**	**29%**	**10%**	**3%**

	Most Likely Outcome
25th Pctl	**1.90%**
Median	**2.00%**
75th Pctl	**2.00%**

11a) What percent chance do you attach to the U.S. economy **currently** being in a recession*?

11b) What percent chance do you attach to the U.S. economy being in a recession* **in 6 months**?

11c) What percent chance do you attach to the global economy being in a recession** **in 6 months**?

	Currently in U.S. Recession		U.S. 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.*

11d) Please explain the factors behind any change to your expectations in parts a-c since the last policy survey.

(19 responses)

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