RESPONSES TO SURVEY OF PRIMARY DEALERS

Markets Group, Federal Reserve Bank of New York

April/May 2019

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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. 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.

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

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

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

Current economic conditions:

Some dealers indicated that they expected the Committee to note continued strength in the labor market. Several dealers indicated that they expected the Committee to describe growth of economic activity as “moderate”, and several noted that they expected the Committee to upgrade its assessment of economic activity. Several dealers indicated that they expected the Committee to downgrade its characterization of core inflation, while several indicated that they thought the Committee might upgrade its characterization of household spending. Finally, several dealers indicated that they expected no material changes to this portion of the statement.

Economic outlook:

Most dealers indicated that they expected no material changes to this portion of the statement.

Communication on the expected path of the target federal funds rate:

Most dealers indicated that they expected no material changes to this portion of the statement.

Other:
(10 responses)

Dealers did not provide substantial commentary in this section.

1b) What are your expectations for the Chair's press conference?

Some dealers indicated that they expected the Chair to continue to emphasize the value of patience in determining possible future adjustments to monetary policy, and several dealers indicated that they expected him to reiterate that policy will be data dependent. In addition, some dealers indicated that they expected the Chair to discuss recent softness in inflation data, and several indicated that they expected him to discuss risks to the global growth outlook. Finally, several dealers indicated that they expected the Chair to share new details regarding normalization of the Fed’s balance sheet.

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

	Number of Respondents
1 - Ineffective	**1**
2	**1**
3	**8**
4	**9**
5 - Effective	**4**

Please explain.

In explaining their rating of the Federal Reserve System's communication, some dealers indicated that they believed the Committee had clearly communicated that it would be patient in determining the appropriate course of monetary policy. Also, several dealers noted that they believed communication from Federal Reserve officials had been consistent with previous communication regarding the path of policy. However, several dealers noted that they perceived communication regarding inflation to be unclear.

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

	Apr 30-May 1 2019	Jun 18-19 2019	Jul 30-31 2019	Sep 17-18 2019	Oct 29-30 2019	Dec 10-11 2019	Jan 28-29 2020
25th Pctl	**2.38%**	**2.38%**	**2.38%**	**2.38%**	**2.38%**	**2.38%**	**2.38%**
Median	**2.38%**	**2.38%**	**2.38%**	**2.38%**	**2.38%**	**2.38%**	**2.38%**
75th Pctl	**2.38%**	**2.38%**	**2.38%**	**2.38%**	**2.38%**	**2.38%**	**2.38%**
# of Responses	**23**	**23**	**23**	**23**	**23**	**23**	**23**
	2020 Q1	2020 Q2	2020 Q3	2020 Q4	2021 Q1	2021 Q2	2021 H2
25th Pctl	**2.38%**	**2.38%**	**2.38%**	**2.38%**	**2.38%**	**2.38%**	**2.38%**
Median	**2.38%**	**2.38%**	**2.38%**	**2.38%**	**2.38%**	**2.38%**	**2.38%**
75th Pctl	**2.38%**	**2.38%**	**2.38%**	**2.63%**	**2.63%**	**2.63%**	**2.88%**
# of Responses	**23**	**23**	**23**	**23**	**17**	**17**	**17**

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%**	**2.20%**
Median	**2.75%**	**2.38%**
75th Pctl	**2.88%**	**2.50%**

3c) Please indicate the percent chance that you attach to the following possible outcomes for the Committee's next policy action between now and the end of 2019.

	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 Through the End of 2019
Average	**19%**	**15%**	**67%**

3d) 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 2019, conditional on the following possible scenarios for the direction of the Committee's next policy action between now and the end of 2019. 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								
	≤ 2.00%	2.01 - 2.25%	2.26 - 2.50%	2.51 - 2.75%	2.76 - 3.00%	3.01 - 3.25%	3.26 - 3.50%	≥ 3.51%
Average	**2%**	**3%**	**10%**	**65%**	**17%**	**3%**	**1%**	**0%**

Next Change is a Decrease								
	≤ 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	**5%**	**3%**	**3%**	**5%**	**8%**	**14%**	**27%**	**34%**

3e-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 2020 and 2021, conditional on **not** moving to the zero lower bound (ZLB) at any point between now and the end of 2021. If you expect a target range, please use the midpoint of that range in providing your response.
(22 responses)

Year-End 2020								
	≤ 1.00%	1.01-1.50%	1.51-2.00%	2.01-2.50%	2.51-3.00%	3.01-3.50%	3.51-4.00%	≥ 4.01%
Average	**6%**	**9%**	**17%**	**33%**	**21%**	**11%**	**3%**	**1%**

Year-End 2021								
	≤ 1.00%	1.01-1.50%	1.51-2.00%	2.01-2.50%	2.51-3.00%	3.01-3.50%	3.51-4.00%	≥ 4.01%
Average	**6%**	**11%**	**18%**	**24%**	**21%**	**13%**	**4%**	**1%**

3e-ii) Please indicate the percent chance that you attach to moving to the ZLB at some point between now and the end of 2021.

	Probability of Moving to ZLB at Some Point between Now and the End of 2021
25th Pctl	**25%**
Median	**30%**
75th Pctl	**35%**

3e-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 2020 and 2021, conditional on moving to the ZLB at some point between now and the end of 2021. 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 2021. If you expect a target range, please use the midpoint of that range in providing your response.
(21 responses)

Year-End 2020								
	< 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	**9%**	**41%**	**15%**	**10%**	**9%**	**10%**	**3%**	**3%**

Year-End 2021								
	< 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%**	**54%**	**16%**	**9%**	**6%**	**3%**	**1%**	**0%**

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

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

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

Some dealers indicated that they had reduced or removed their modal expectations for increases in the target range by the end of 2019, and several dealers indicated that they now expect no changes in the target range for some time.

4) 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 2019 and 2020.
(22 responses)

Year-end 2019							
	≤ 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%**	**9%**	**26%**	**41%**	**14%**	**5%**	**2%**

Year-end 2020							
	≤ 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	**5%**	**12%**	**25%**	**33%**	**17%**	**6%**	**3%**

5a) Over the past week, the spread between the top of the target range for the federal funds rate and the interest on excess reserves (IOER) rate has been +10 basis points; the spread between IOER and the effective federal funds rate (EFFR) has averaged -1 basis points; the spread between IOER and the Overnight Bank Funding Rate (OBFR) has averaged 0 basis points; and the spread between the Tri-Party General Collateral Rate (TGCR) and the overnight reverse repurchase (ON RRP) rate has averaged +16 basis points. Please provide your expectation for each of these rate spreads immediately following each of the FOMC meetings below and over the longer run*. **Please ensure your signs are correct.**

	Top of target range minus IOER (in bps)				
	Apr 30-May 1 FOMC	Jun 18-19 FOMC	Jul 30-31 FOMC	Sep 17-18 FOMC	Longer Run*
25th Pctl	**10.0**	**10.0**	**10.0**	**10.0**	**10.0**
Median	**10.0**	**10.0**	**10.0**	**10.0**	**11.3**
75th Pctl	**10.0**	**15.0**	**15.0**	**15.0**	**15.0**
# of Responses	**23**	**23**	**23**	**23**	**22**

** "Longer run" as discussed in the* January 2019 Statement Regarding Monetary Policy Implementation and Balance Sheet Normalization.

	IOER minus EFFR (in bps)				
	Apr 30-May 1 FOMC	Jun 18-19 FOMC	Jul 30-31 FOMC	Sep 17-18 FOMC	Longer Run*
25th Pctl	-3.0	-4.0	-5.0	-5.0	-7.0
Median	-1.0	-2.0	-3.0	-3.0	-3.0
75th Pctl	-1.0	-1.0	-1.0	-1.0	-1.0
# of Responses	23	23	23	23	22

* *"Longer run" as discussed in the* January 2019 Statement Regarding Monetary Policy Implementation and Balance Sheet Normalization.

	IOER minus OBFR (in bps)				
	Apr 30-May 1 FOMC	Jun 18-19 FOMC	Jul 30-31 FOMC	Sep 17-18 FOMC	Longer Run*
25th Pctl	-2.0	-3.0	-3.0	-4.0	-4.0
Median	-1.0	-1.0	-2.0	-2.0	-2.0
75th Pctl	0.0	0.0	0.0	0.0	0.0
# of Responses	23	23	23	23	22

* *"Longer run" as discussed in the* January 2019 Statement Regarding Monetary Policy Implementation and Balance Sheet Normalization.

	TGCR minus ON RRP rate (in bps)				
	Apr 30-May 1 FOMC	Jun 18-19 FOMC	Jul 30-31 FOMC	Sep 17-18 FOMC	Longer Run*
25th Pctl	15.0	14.0	15.0	15.0	15.0
Median	16.0	16.0	16.0	16.0	16.0
75th Pctl	20.0	19.0	20.0	19.0	20.0
# of Responses	23	23	23	23	22

* *"Longer run" as discussed in the* January 2019 Statement Regarding Monetary Policy Implementation and Balance Sheet Normalization.

5b) Please describe any assumptions that underlie your expectations in part a.
(21 responses)

Several dealers described assumptions related to the debt ceiling and/or the pattern of Treasury bill issuance. Several dealers also indicated that they assumed no adjustments to the IOER rate relative to the target range for the federal funds rate, while several others indicated that they did assume that at some point an adjustment to the IOER rate relative to the target range for the federal funds rate would be made.

6a) Please indicate the lowest average weekly level ($ billions) you expect reserve balances to reach between now and the end of 2025, conditional on **not** moving to the ZLB at any point between now and the end of 2025, as reported in the weekly H.4.1 release. For reference, the average level of reserve balances for the week ended April 10, 2019 was $1635 billion according to the most recent H.4.1 release.

Lowest Average Weekly Level of Reserve Balances Between Now and the End of 2025 Conditional on Not Moving to the Zero Lower Bound	
25th Pctl	**1100**
Median	**1200**
75th Pctl	**1300**

6b) Please indicate the percent chance that you attach to the following possible outcomes for the par value of the domestic SOMA portfolio at the end of 2021, conditional on **not** moving to the ZLB at any point between now and the end of 2021. For reference, the level of the domestic SOMA portfolio on April 10, 2019 was $3749 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	**3%**	**17%**	**58%**	**18%**	**4%**

6c) Please indicate the percent chance that you attach to the following possible outcomes for the par value of the domestic SOMA portfolio at the end of 2021, conditional on moving to the ZLB at any point between now and the end of 2021. 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 2021 in question 3. Levels referenced below are in $ billions.

	≤ 4000	4001 - 4500	4501 - 5000	5001 - 5500	≥ 5501
Average	**22%**	**29%**	**23%**	**18%**	**9%**

6d) Please describe any assumptions that underlie your expectations in parts a-c.
(20 responses)

Several dealers indicated that their responses reflected assumptions that a return to the zero lower bound would likely result in a new asset purchase program. Separately, several dealers indicated that they assumed that the Fed's balance sheet would start to grow again in 2020.

7a) For the outcomes below, provide the percent chance you attach to the annual average CPI inflation rate from April 1, 2019 - March 31, 2024 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%**	**12%**	**29%**	**38%**	**12%**	**5%**

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

7b) For the outcomes below, provide the percent chance you attach to the annual average CPI inflation rate from April 1, 2024 - March 31, 2029 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%**	**11%**	**28%**	**38%**	**13%**	**6%**

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

7c) For the outcomes below, provide the percent chance you attach to the annual average PCE inflation rate from April 1, 2021 - March 31, 2022 falling in each of the following ranges. Please also provide your point estimate for the most likely outcome.

	≤0.75%	0.76 - 1.25%	1.26 - 1.75%	1.76 - 2.25%	2.26 - 2.75%	2.76 - 3.25%	≥3.26%
Average	**2%**	**9%**	**25%**	**43%**	**15%**	**4%**	**1%**

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

Please explain the factors behind any change to your expectations for the 1-year-forward PCE inflation rate 2 years ahead since the June 2018 policy survey when this question was last asked.

(19 responses)

Several dealers indicated no material change to their core PCE inflation estimates over this time horizon, while several others indicated that they updated their responses to reflect realized inflation data. Also, several dealers indicated that they updated their responses to reflect a change in their expectations regarding the Fed's monetary policy stance or framework relative to the last time the question was asked.

8a) What percent chance do you attach to:

the U.S. economy currently being in a recession*?
the U.S. economy being in a recession* **in 6 months**?
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	**15%**
Median	**5%**	Median	**15%**	Median	**15%**
75th Pctl	**5%**	75th Pctl	**15%**	75th Pctl	**20%**

**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.*

8b) What percent chance do you attach to the U.S. economy first entering a recession* in each of the following periods?

	2019 or earlier	2020	2021	2022	2023 or later
Average	**15%**	**25%**	**27%**	**17%**	**16%**

**NBER-defined recession*

8c) Please explain the factors behind any change to your expectations in parts a-b since the last policy survey.
(17 responses)

Several dealers indicated that they had lowered their recession probabilities, with several dealers citing improving U.S. economic data. Several other dealers indicated that they had made no material changes to their recession probabilities.

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

		2019	2020	2021	Longer Run
Real GDP (Q4/Q4 Growth)	25th Pctl	**2.00%**	**1.60%**	**1.50%**	**1.75%**
	Median	**2.10%**	**1.80%**	**1.80%**	**1.90%**
	75th Pctl	**2.30%**	**2.10%**	**2.10%**	**2.00%**
Core PCE Inflation (Q4/Q4)	25th Pctl	**1.80%**	**2.00%**	**1.90%**	**-**
	Median	**1.90%**	**2.07%**	**2.00%**	**-**
	75th Pctl	**2.00%**	**2.10%**	**2.10%**	**-**
Headline PCE Inflation (Q4/Q4)	25th Pctl	**1.80%**	**1.80%**	**1.90%**	**2.00%**
	Median	**1.88%**	**2.00%**	**2.00%**	**2.00%**
	75th Pctl	**2.00%**	**2.10%**	**2.10%**	**2.00%**
Unemployment Rate (Q4 Average Level)	25th Pctl	**3.50%**	**3.40%**	**3.50%**	**4.10%**
	Median	**3.60%**	**3.65%**	**4.00%**	**4.40%**
	75th Pctl	**3.70%**	**3.80%**	**4.20%**	**4.55%**

9b) Please explain changes, if any, to your estimates in part a since the last policy survey. (18 responses)

Some dealers indicated that they had lowered their inflation estimates, including several who noted that they had lowered their estimates for near-term core PCE inflation, in particular, in response to incoming data. In addition, several dealers indicated that they had revised higher their unemployment rate estimates in response to a higher-than-expected labor force participation rate.