RESPONSES TO SURVEY OF PRIMARY DEALERS

Markets Group, Federal Reserve Bank of New York

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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 November FOMC statement.

Current economic conditions:

Many dealers indicated that they expected the Committee to note a slowing in business fixed investment growth. In addition, several dealers indicated that they expected the Committee to note a moderation in residential investment, while several indicated that they expected the Committee to continue to characterize economic activity as "strong" or to acknowledge strength in household spending. Finally, several other dealers indicated that they expected no major changes to this portion of the statement.

Economic outlook:
(22 responses)

Most dealers indicated that they expected no major changes to this portion of the statement, and several indicated in particular that they expected the statement's existing language describing risks to the economic outlook as "roughly balanced" to be unchanged.

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

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

Other:
(9 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 last policy survey? Please provide a rating between 1 and 5, with 1 indicating ineffectiveness and 5 indicating effectiveness.

	Number of Respondents
1 - Ineffective	0
2	2
3	7
4	13
5 - Effective	1

Please explain.

Several dealers noted that recent communication from Fed officials has been clear. However, several dealers noted that they perceived recent communication regarding the neutral policy rate

and its role in informing monetary policy as being unclear or at times inconsistent with prior Fed communication.

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.

	Nov 7-8 2018	Dec 18-19 2018	Jan 29-30 2019	Mar 19-20 2019	Apr 30-May 1 2019	Jun 18 - 19 2019	Jul 30 - 31 2019	
25th Pctl	**2.13%**	**2.38%**	**2.38%**	**2.63%**	**2.63%**	**2.88%**	**2.88%**	
Median	**2.13%**	**2.38%**	**2.38%**	**2.63%**	**2.63%**	**2.88%**	**2.88%**	
75th Pctl	**2.13%**	**2.38%**	**2.38%**	**2.63%**	**2.63%**	**2.88%**	**2.88%**	
# of Responses	**23**	**23**	**23**	**23**	**23**	**23**	**23**	
	2019 Q3	2019 Q4	2020 Q1	2020 Q2	2020 Q3	2020 Q4	2021 H1	2021 H2
25th Pctl	**2.88%**	**2.88%**	**2.88%**	**2.88%**	**2.88%**	**2.88%**	**2.88%**	**2.88%**
Median	**2.88%**	**3.13%**	**3.13%**	**3.13%**	**3.13%**	**2.88%**	**2.88%**	**2.88%**
75th Pctl	**3.13%**	**3.25%**	**3.38%**	**3.38%**	**3.38%**	**3.38%**	**3.25%**	**3.25%**
# of Responses	**22**	**22**	**19**	**19**	**19**	**19**	**15**	**15**

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%**	**2.10%**
Median	**2.88%**	**2.50%**
75th Pctl	**3.00%**	**2.90%**

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

	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	**92%**	**2%**	**5%**

3d) Conditional on the Committee's next policy action <u>between now and the end of 2019</u> 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 between now and the end of 2019 being an increase.

	Increase Occurs at November FOMC Meeting	Increase Occurs at December FOMC Meeting	Increase Occurs in 2019
Average	**1%**	**83%**	**16%**

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 2019, conditional on the following possible scenarios for the direction and timing 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, occurs by end of 2018								
	≤ 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	**3%**	**2%**	**9%**	**12%**	**24%**	**28%**	**16%**	**5%**

Next change is an increase, occurs in 2019								
	≤ 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	**3%**	**4%**	**13%**	**27%**	**26%**	**19%**	**6%**	**2%**

Next change is a decrease								
	< 0.25%	0.26 - 0.50%	0.51 - 0.75%	0.76 - 1.00%	1.01 - 1.25%	1.26 - 1.50%	1.51 - 1.75%	≥ 1.76%
Average	**7%**	**11%**	**9%**	**9%**	**15%**	**20%**	**20%**	**9%**

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 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.
(20 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%
Average	**4%**	**6%**	**9%**	**13%**	**26%**	**26%**	**16%**

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%
Average	**7%**	**9%**	**13%**	**16%**	**21%**	**19%**	**15%**

3f-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	**20%**
Median	**25%**
75th Pctl	**35%**

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 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.
(19 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	**10%**	**39%**	**17%**	**11%**	**8%**	**6%**	**4%**	**5%**

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	**12%**	**49%**	**16%**	**10%**	**7%**	**5%**	**1%**	**0%**

3f-iv) What is your estimate of the target federal funds rate or range at the effective lower bound?
(22 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.
(15 responses)

Several dealers indicated that they made no significant changes to their policy expectations since the last policy survey. At the same time, several dealers indicated that they assigned an increased probability to a recession or expected a recession scenario over the forecast horizon to be more severe.

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 2018 and 2019.

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	**1%**	**2%**	**8%**	**27%**	**49%**	**11%**	**2%**

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	**2%**	**4%**	**9%**	**21%**	**38%**	**20%**	**7%**

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 +5 basis points; the spread between IOER and the effective federal funds rate (EFFR) has averaged +1 basis point; the spread between IOER and the Overnight Bank Funding Rate (OBFR) has averaged +2 basis points; and the spread between the Tri-Party General Collateral Rate (TGCR) and the overnight reverse repurchase (ON RRP) rate has averaged +17 basis points. Please provide your expectation for each of these rate spreads immediately following each of the FOMC meetings and on each of the dates below.

	Top of target range minus IOER (in bps)					
	Nov. 7-8 FOMC	Dec.18-19 FOMC	Jan. 29-30* FOMC	Mar. 19-20 FOMC	Jun. 27, 2019**	Dec. 30, 2019**
25th Pctl	**5.0**	**10.0**	**10.0**	**10.0**	**10.0**	**10.0**
Median	**5.0**	**10.0**	**10.0**	**10.0**	**10.0**	**15.0**
75th Pctl	**5.0**	**10.0**	**10.0**	**15.0**	**15.0**	**20.0**
# of Responses	**23**	**23**	**23**	**23**	**23**	**23**

	IOER minus EFFR (in bps)					
	Nov. 7-8 FOMC	Dec.18-19 FOMC	Jan. 29-30* FOMC	Mar. 19-20 FOMC	Jun. 27, 2019**	Dec. 30, 2019**
25th Pctl	**0.0**	**-2.0**	**-3.0**	**-5.0**	**-6.0**	**-10.0**
Median	**0.0**	**0.0**	**-1.0**	**-2.0**	**-4.5**	**-5.5**
75th Pctl	**0.0**	**0.0**	**0.0**	**0.0**	**-2.0**	**-2.0**
# of Responses	**23**	**23**	**23**	**22**	**22**	**22**

	IOER minus OBFR (in bps)					
	Nov. 7-8 FOMC	Dec.18-19 FOMC	Jan. 29-30* FOMC	Mar. 19-20 FOMC	Jun. 27, 2019**	Dec. 30, 2019**
25th Pctl	**1.0**	**-1.0**	**-2.0**	**-3.0**	**-4.0**	**-7.0**
Median	**1.0**	**0.0**	**0.0**	**-1.0**	**-2.0**	**-4.5**
75th Pctl	**1.0**	**1.0**	**1.0**	**1.0**	**0.0**	**-1.0**
# of Responses	**23**	**23**	**23**	**22**	**22**	**22**

	TGCR minus ON RRP rate (in bps)					
	Nov. 7-8 FOMC	Dec.18-19 FOMC	Jan. 29-30* FOMC	Mar. 19-20 FOMC	Jun. 27, 2019**	Dec. 30, 2019**
25th Pctl	**17.0**	**15.0**	**14.0**	**13.0**	**14.0**	**14.0**
Median	**17.0**	**17.0**	**16.0**	**15.0**	**15.0**	**15.5**
75th Pctl	**18.0**	**19.0**	**18.0**	**18.0**	**19.0**	**20.0**
# of Responses	**23**	**23**	**23**	**22**	**22**	**22**

**Please provide your response as of Feb. 1, the first post-FOMC day that is not a period-end reporting date.*

***These dates are not period-end reporting dates.*

5b) Please rate the importance of the following factors in influencing the change, if any, in the spread between IOER and EFFR between now and March 28, 2019, as well as between April 1, 2019 and December 30, 2019. **(5=very important, 1=not important)**

Factors Influencing the Change, If Any, in the IOER-EFFR Spread Through Mar. 28, 2019*						
	Change in level of reserve balances	Reduction in FDIC fees	LCR-related demand for reserves	Treasury securities supply dynamics	Change in amount of IOER arbitrage	Other (please explain)
1 - Not Important	**2**	**10**	**1**	**0**	**7**	**0**
2	**6**	**6**	**4**	**1**	**7**	**0**
3	**5**	**6**	**9**	**2**	**3**	**1**
4	**4**	**0**	**6**	**11**	**5**	**0**
5 - Very Important	**5**	**0**	**2**	**8**	**0**	**0**
# of Responses	**22**	**22**	**22**	**22**	**22**	**1**

Factors Influencing the Change, If Any, in the IOER-EFFR Spread from Apr. 1 to Dec. 30, 2019*						
	Change in level of reserve balances	Reduction in FDIC fees	LCR-related demand for reserves	Treasury securities supply dynamics	Change in amount of IOER arbitrage	Other (please explain)
1 - Not Important	1	16	0	0	13	0
2	0	2	2	1	3	0
3	7	4	6	6	2	0
4	3	0	8	9	4	0
5 - Very Important	11	0	6	6	0	1
# of Responses	22	22	22	22	22	1

**These dates are not period-end reporting dates.*

If "Other", please explain.
(1 response)

Dealers did not provide substantial commentary in this section.

5c) Please provide your estimate of the most likely level of the spread between IOER and EFFR conditional on each of the following levels of reserve balances
(15 responses)

		Reserves ($ billions)*						
		2000	1750	1500	1250	1000	750	500
IOER minus EFFR (in bps)	25th Pctl	1.0	0.0	-2.0	-10.0	-10.0	-15.0	-20.0
	Median	2.0	0.0	-1.0	-3.5	-5.5	-8.0	-10.0
	75th Pctl	3.0	1.0	0.0	-2.0	-3.0	-5.0	-6.0

**The most recent observed level of reserves as reported in the H.4.1 release prior to the date of the survey was $1832 billion on 10/7. The spread between IOER and EFFR on that day was +1 basis point.*

5d) Please explain changes to your expectations in parts a, b and c since the policy survey on July 23, where applicable.
(21 responses)

Several dealers indicated that they expected an additional adjustment to IOER relative to the top of the target range, including several who indicated that they expected an adjustment to IOER relative to the top of the target range to occur at the December 2018 FOMC meeting.

6a) Provide your estimate of the most likely outcome for output, inflation, and unemployment.
(16 responses)

		2018	2019	2020	2021	Longer Run
Real GDP (Q4/Q4 Growth)	25th Pctl	**3.00%**	**2.00%**	**1.30%**	**1.50%**	**1.70%**
	Median	**3.10%**	**2.30%**	**1.60%**	**1.65%**	**1.85%**
	75th Pctl	**3.20%**	**2.40%**	**2.00%**	**1.90%**	**2.05%**
Core PCE Inflation (Q4/Q4)	25th Pctl	**1.90%**	**2.10%**	**2.00%**	**1.90%**	**-**
	Median	**2.00%**	**2.20%**	**2.10%**	**2.00%**	**-**
	75th Pctl	**2.00%**	**2.24%**	**2.20%**	**2.14%**	**-**
Headline PCE Inflation (Q4/Q4)	25th Pctl	**2.00%**	**1.90%**	**2.00%**	**1.95%**	**2.00%**
	Median	**2.07%**	**2.07%**	**2.00%**	**2.00%**	**2.00%**
	75th Pctl	**2.20%**	**2.20%**	**2.20%**	**2.10%**	**2.00%**
Unemployment Rate (Q4 Average Level)	25th Pctl	**3.60%**	**3.30%**	**3.30%**	**3.45%**	**4.20%**
	Median	**3.70%**	**3.40%**	**3.70%**	**3.95%**	**4.40%**
	75th Pctl	**3.80%**	**3.60%**	**4.00%**	**4.23%**	**4.60%**

6b) Please explain changes, if any, to your estimates in part a since the last time this question was asked. (19 responses)

Several dealers indicated that they had increased their forecasts for GDP growth in 2018 due to recent economic data releases. Additionally, several dealers indicated that they had changed their forecasts for headline and/or core PCE inflation, including several who increased their forecasts, and several noted that they had changed their forecasts for the unemployment rate.

7a) For the outcomes below, provide the percent chance you attach to the annual average CPI inflation rate from October 1, 2018 - September 30, 2023 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%**	**27%**	**38%**	**14%**	**5%**

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

7b) For the outcomes below, provide the percent chance you attach to the annual average CPI inflation rate from October 1, 2023 - September 30, 2028 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%**	**27%**	**40%**	**14%**	**5%**

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

8a) What percent chance do you attach to the U.S. economy **currently** being in a recession*?

8b) What percent chance do you attach to the U.S. economy being in a recession* in **6 months**?

8c) 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	**0%**	25th Pctl	**5%**	25th Pctl	**10%**
Median	**2%**	Median	**10%**	Median	**15%**
75th Pctl	**5%**	75th Pctl	**10%**	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.*

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

Several dealers indicated no change to their recession forecasts.

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

	2018	2019	2020	2021	2022	2023 or later
Average	**3%**	**14%**	**25%**	**26%**	**17%**	**15%**

**NBER-defined recession*