RESPONSES TO SURVEY OF PRIMARY DEALERS

Markets Group, Federal Reserve Bank of New York

JULY/AUGUST 2018

Distributed: 7/19/2018 – Received by: 7/23/2018

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

Table of Contents

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

Current economic conditions:

Several dealers indicated that they expected no substantial changes to this portion of the statement. Also, several dealers indicated that they expected the Committee to remove language that the unemployment rate "declined," while several others indicated that they expected the Committee to note that the unemployment rate remains low. Several dealers indicated that they expected the Committee to keep language that economic activity has been "solid" while several others indicated that they expected the Committee to characterize economic activity as "strong." Finally, several dealers indicated that they expected the Committee to note that inflation is at or close to 2 percent, while several indicated that they expected the Committee to note that inflation is above 2 percent.

Economic outlook:

Many dealers indicated that they expected no major changes to this portion of the statement. Several noted that they thought the Committee might acknowledge risks posed by trade negotiations.

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

Many dealers indicated that they expected no significant changes to this portion of the statement. Several dealers noted that they expected the Committee to add the phrase "for now" to the characterization of forward guidance, consistent with the language Chairman Powell used in his recent congressional testimony.

Other:
(7 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	1
3	4
4	15
5 - Effective	3

Please explain:
(22 responses)

Several dealers indicated that they thought the Federal Reserve System's communication had been consistent and/or clear, and several specifically characterized communication regarding monetary policy decisions or the near-term path of monetary policy as clear.

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 31-Aug 1 2018	Sep 25-26 2018	Nov 7-8 2018	Dec 18-19 2018	Jan 29-30 2019	Mar 19-20 2019	Apr 30-May 1 2019
25th Pctl	**1.88%**	**2.13%**	**2.13%**	**2.38%**	**2.38%**	**2.38%**	**2.38%**
Median	**1.88%**	**2.13%**	**2.13%**	**2.38%**	**2.38%**	**2.63%**	**2.63%**
75th Pctl	**1.88%**	**2.13%**	**2.13%**	**2.38%**	**2.38%**	**2.63%**	**2.63%**
# of Responses	**23**	**23**	**23**	**23**	**23**	**23**	**23**
	2019 Q2	2019 Q3	2019 Q4	2020 Q1	2020 Q2	2020 Q3	2020 Q4
25th Pctl	**2.63%**	**2.63%**	**2.88%**	**2.88%**	**2.88%**	**2.88%**	**2.88%**
Median	**2.88%**	**2.88%**	**2.88%**	**3.13%**	**3.13%**	**3.13%**	**3.13%**
75th Pctl	**2.88%**	**3.13%**	**3.13%**	**3.13%**	**3.38%**	**3.38%**	**3.25%**
# of Responses	**23**	**23**	**23**	**18**	**18**	**18**	**18**

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%**	**2.50%**
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 2018</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 2018
Average	**93%**	**2%**	**5%**

3d) Conditional on the Committee's next policy action between now and the end of 2018 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 between now and the end of 2018 being an increase.

	Increase Occurs at July/August FOMC Meeting	Increase Occurs at September FOMC Meeting	Increase Occurs at November FOMC Meeting or Later
Average	**3%**	**89%**	**8%**

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 2018, conditional on the following possible scenarios for the direction and timing of the Committee's next policy action between now and the end of 2018. 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 Sep. FOMC meeting or earlier								
	≤ 1.00%	1.01 - 1.25%	1.26 - 1.50%	1.51 - 1.75%	1.76 - 2.00%	2.01 - 2.25%	2.26 - 2.50%	≥ 2.51%
Average	**1%**	**1%**	**1%**	**2%**	**4%**	**33%**	**53%**	**5%**

Next change is an increase, occurs at Nov. FOMC meeting or later								
	≤ 1.00%	1.01 - 1.25%	1.26 - 1.50%	1.51 - 1.75%	1.76 - 2.00%	2.01 - 2.25%	2.26 - 2.50%	≥ 2.51%
Average	**1%**	**1%**	**1%**	**3%**	**11%**	**73%**	**9%**	**1%**

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%**	**15%**	**10%**	**11%**	**12%**	**12%**	**15%**	**21%**

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 2019 and 2020, conditional on **not** moving to the zero lower bound (ZLB) at any point between now and the end of 2020. If you expect a target range, please use the midpoint of that range in providing your response.

(22 responses)

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	**3%**	**3%**	**7%**	**16%**	**37%**	**25%**	**8%**

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	**6%**	**7%**	**9%**	**14%**	**24%**	**26%**	**13%**

3f-ii) Please indicate the percent chance that you attach to moving to the ZLB at some point between now and the end of 2020.

	Probability of Moving to ZLB at Some Point between Now and the End of 2020
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 2019 and 2020, conditional on moving to the ZLB at some point between now and the end of 2020. 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 2020. If you expect a target range, please use the midpoint of that range in providing your response.
(21 responses)

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	**9%**	**43%**	**20%**	**13%**	**8%**	**4%**	**2%**	**3%**

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	**14%**	**49%**	**21%**	**10%**	**4%**	**1%**	**1%**	**0%**

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.
(17 responses)

Several dealers indicated that they placed higher probability on lower rate outcomes and/or lower probability on higher rate outcomes to reflect trade developments since the last survey, while several others indicated no material changes to their expectations.

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%**	**5%**	**13%**	**33%**	**36%**	**10%**	**3%**

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%**	**6%**	**14%**	**26%**	**27%**	**16%**	**8%**

5) The neutral real federal funds rate 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. Please provide your estimate for the level of the neutral real federal funds rate at each of the time periods below.
(22 responses)

	Current Level	Year-end 2018	Year-end 2019	Year-end 2020
25th Pctl	**0.13%**	**0.40%**	**0.50%**	**0.50%**
Median	**0.44%**	**0.50%**	**0.75%**	**0.94%**
75th Pctl	**0.75%**	**0.75%**	**1.00%**	**1.00%**

Please explain the factors behind any changes to your estimates since the policy survey on January 22.
(17 responses)

Several dealers indicated that there had been no change to their estimates, while several others indicated that they had raised their estimates due to higher realized growth and/or recent fiscal stimulus.

6) The following matrix lays out hypothetical scenarios in which the realized levels of the 2019 unemployment rate (Q4 average level) and 2019 core PCE inflation (Q4/Q4) 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 2020. If you expect a target range, please indicate the midpoint of that range in providing your response.

25th Percentile Responses

		2019 Unemployment rate (Q4 average level)		
		- 50 bps	Current SEP median 3.5%	+ 50 bps
2019 Core PCE inflation (Q4/Q4)	- 50 bps	2.63%	2.38%	2.25%
	Current SEP median 2.1%	3.13%	2.88%	2.63%
	+ 50 bps	3.38%	3.35%	3.13%

Median Responses

		2019 Unemployment rate (Q4 average level)		
		- 50 bps	Current SEP median 3.5%	+ 50 bps
2019 Core PCE inflation (Q4/Q4)	- 50 bps	2.88%	2.63%	2.38%
	Current SEP median 2.1%	3.35%	3.13%	2.88%
	+ 50 bps	3.88%	3.38%	3.38%

75th Percentile Responses		2019 Unemployment rate (Q4 average level)		
		- 50 bps	Current SEP median 3.5%	+ 50 bps
2019 Core PCE inflation (Q4/Q4)	- 50 bps	**2.88%**	**2.88%**	**2.63%**
	Current SEP median 2.1%	**3.63%**	**3.13%**	**3.00%**
	+ 50 bps	**4.00%**	**3.63%**	**3.50%**

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

Some dealers indicated that they assumed the target federal funds rate or range would be more sensitive to deviations in inflation than to deviations in the unemployment rate. Additionally, several dealers cited various reasons they expect a low sensitivity to changes in the unemployment rate.

7a) Since the June FOMC meeting, 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 +4 basis points; and the spread between the Tri-Party General Collateral Rate (TGCR) and the overnight reverse repurchase (ON RRP) rate has averaged +15 basis points. Please provide your expectation for each of these rate spreads on each of the following dates.
(21 responses)

	Top of target range minus IOER (in bps)		
	Dec. 28, 2018*	Jun. 27, 2019*	Dec. 30, 2019*
25th Pctl	**5.0**	**9.0**	**10.0**
Median	**5.0**	**10.0**	**10.0**
75th Pctl	**10.0**	**10.0**	**15.0**

	IOER minus EFFR (in bps)		
	Dec. 28, 2018*	Jun. 27, 2019*	Dec. 30, 2019*
25th Pctl	**2.0**	**0.0**	**-5.0**
Median	**3.3**	**1.0**	**0.0**
75th Pctl	**4.0**	**3.0**	**2.5**

	TGCR minus ON RRP rate (in bps)		
	Dec. 28, 2018*	Jun. 27, 2019*	Dec. 30, 2019*
25th Pctl	**15.0**	**15.0**	**10.0**
Median	**15.0**	**16.0**	**15.0**
75th Pctl	**18.0**	**20.0**	**20.0**

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

7b) Please explain changes to your expectations in part a since the policy survey on April 23, where applicable.
(20 responses)

Some dealers indicated that they expected a further technical adjustment to the rate of interest on excess reserves. Also, several dealers noted that they had updated their expectations to reflect realized changes in money market spreads. Several dealers noted that they expected increased Treasury bill supply to put upward pressure on the effective federal funds rate. Finally, several dealers indicated that they expected declining reserve levels to put upward pressure on the effective federal funds rate.

7c) Please rate the importance of the following factors in influencing the change, if any, in the spread between IOER and EFFR between now and December 28, 2018, as well as over calendar year 2019. (5=very important, 1=not important)

Factors Influencing the Change, If Any, in the IOER-EFFR Spread Through Dec. 28, 2018*						
	Change in level of reserve balances	Reduction in FDIC fees	Change in regulatory constraints	Treasury securities supply dynamics	Change in amount of IOER arbitrage	Other (please explain)
1 - Not Important	**2**	**6**	**4**	**0**	**5**	**0**
2	**4**	**5**	**8**	**2**	**5**	**0**
3	**3**	**10**	**8**	**4**	**8**	**0**
4	**8**	**0**	**1**	**7**	**3**	**1**
5 - Very Important	**5**	**1**	**0**	**9**	**0**	**1**
# of Responses	**22**	**22**	**21**	**22**	**21**	**2**

**Note: This date is not a period-end reporting date.*

Factors Influencing the Change, If Any, in the IOER-EFFR Spread Over Calendar Year 2019						
	Change in level of reserve balances	Reduction in FDIC fees	Change in regulatory constraints	Treasury securities supply dynamics	Change in amount of IOER arbitrage	Other (please explain)
1 - Not Important	**0**	**12**	**2**	**0**	**7**	**1**
2	**1**	**6**	**9**	**4**	**4**	**0**
3	**6**	**3**	**7**	**2**	**5**	**0**
4	**4**	**1**	**3**	**9**	**3**	**0**
5 - Very Important	**11**	**0**	**0**	**7**	**2**	**1**
# of Responses	**22**	**22**	**21**	**22**	**21**	**2**

If "Other", please explain:
(2 responses)

Dealers did not provide substantial commentary in this section.

7d) 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.
(17 responses)

		Reserves ($ billions)*						
		2000	1750	1500	1250	1000	750	500
IOER minus EFFR (in bps)	25th Pctl	**4.0**	**2.0**	**0.0**	**-3.0**	**-7.0**	**-10.0**	**-20.0**
	Median	**4.0**	**3.0**	**2.0**	**0.0**	**-4.0**	**-5.0**	**-5.0**
	75th Pctl	**5.0**	**4.0**	**3.0**	**2.0**	**2.0**	**1.0**	**0.0**

**The most recent observed level of reserves as reported in the H.4.1 release prior to the date of the survey was $1958 billion; IOER minus EFFR averaged +4 bps between the June FOMC meeting and the date of the survey.*

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

		2018	2019	2020	Longer Run
Real GDP (Q4/Q4 Growth)	25th Pctl	**2.70%**	**2.00%**	**1.70%**	**1.70%**
	Median	**2.91%**	**2.40%**	**1.80%**	**1.80%**
	75th Pctl	**3.00%**	**2.60%**	**2.20%**	**2.00%**
Core PCE Inflation (Q4/Q4)	25th Pctl	**2.00%**	**2.00%**	**2.00%**	**-**
	Median	**2.00%**	**2.10%**	**2.00%**	**-**
	75th Pctl	**2.10%**	**2.20%**	**2.20%**	**-**
Headline PCE Inflation (Q4/Q4)	25th Pctl	**2.00%**	**1.90%**	**2.00%**	**2.00%**
	Median	**2.10%**	**2.07%**	**2.00%**	**2.00%**
	75th Pctl	**2.20%**	**2.19%**	**2.13%**	**2.00%**
Unemployment Rate (Q4 Average Level)	25th Pctl	**3.60%**	**3.30%**	**3.50%**	**4.20%**
	Median	**3.70%**	**3.40%**	**3.80%**	**4.40%**
	75th Pctl	**3.80%**	**3.70%**	**4.10%**	**4.60%**

8b) Please explain changes to your estimates in part a since the last policy survey, where applicable.
(18 responses)

Some dealers noted changes in their economic forecasts due to recent economic data releases, including several who noted that they increased their forecasts for headline and/or core PCE inflation. In addition, several dealers noted that they changed their forecasts for GDP growth.

9a) For the outcomes below, provide the percent chance you attach to the annual average CPI inflation rate from July 1, 2018 - June 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	**3%**	**11%**	**24%**	**43%**	**14%**	**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 July 1, 2023 - June 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%**	**28%**	**41%**	**13%**	**5%**

	Most Likely Outcome
25th Pctl	**2.00%**
Median	**2.20%**
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 U.S. Recession		U.S. Recession in 6 Months		Global Recession in 6 Months
25th Pctl	**0%**	25th Pctl	**6%**	25th Pctl	**10%**
Median	**2%**	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)

Several dealers indicated that there had been no change to their recession probabilities, while several others indicated that they increased at least one of their recession probabilities as a result of perceived risks to international trade.