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 January FOMC statement.

Current economic conditions:

Some dealers expected the Committee to remove language on the impact of recent hurricanes in its characterization of current economic conditions. In addition, several dealers expected the Committee to note an increase in measures of inflation compensation, upgrade its assessment of inflation, and characterize the unemployment rate as remaining low. Finally, several dealers expected no material changes to this language.

Economic outlook:

Some dealers expected the Committee to reference recent tax legislation in its characterization of the economic outlook. In addition, several dealers expected no material changes to this language, while several expected the Committee to remove language on the impact of recent hurricanes.

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

Most dealers expected no material change to the Committee's communication on the expected path of the target fed funds rate.

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 December 4? Please provide a rating between 1 and 5, with 1 indicating ineffectiveness and 5 indicating effectiveness.

	Number of Respondents
1 - Ineffective	0
2	3
3	6
4	12
5 - Effective	2

Please explain:
(21 responses)

Dealers did not provide substantial commentary in this section.

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.

	Jan. 30-31 2018	Mar. 20-21 2018	May 1-2 2018	Jun. 12-13 2018	Jul. 31 - Aug. 1 2018	Sep. 25-26 2018	Nov. 7-8 2018
25th Pctl	**1.38%**	**1.63%**	**1.63%**	**1.88%**	**1.88%**	**1.88%**	**1.88%**
Median	**1.38%**	**1.63%**	**1.63%**	**1.88%**	**1.88%**	**2.13%**	**2.13%**
75th Pctl	**1.38%**	**1.63%**	**1.63%**	**1.88%**	**1.88%**	**2.13%**	**2.13%**
# of Responses	**23**	**23**	**23**	**23**	**23**	**23**	**23**
	2018 Q4	2019 Q1	2019 Q2	2019 Q3	2019 Q4	2020 H1	2020 H2
25th Pctl	**2.13%**	**2.13%**	**2.38%**	**2.38%**	**2.63%**	**2.63%**	**2.63%**
Median	**2.13%**	**2.38%**	**2.63%**	**2.63%**	**2.63%**	**2.88%**	**2.88%**
75th Pctl	**2.38%**	**2.63%**	**2.88%**	**2.88%**	**2.88%**	**3.13%**	**3.13%**
# of Responses	**23**	**22**	**22**	**22**	**22**	**19**	**19**

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%**	**2.65%**

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	**92%**	**2%**	**6%**

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

	Increase Occurs at January FOMC meeting	Increase Occurs at March FOMC meeting	Increase Occurs at May FOMC Meeting or later
Average	**4%**	**81%**	**15%**

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 Mar. 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%**	**3%**	**6%**	**15%**	**40%**	**26%**	**6%**

Next change is an increase, occurs at May 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	**2%**	**2%**	**5%**	**17%**	**32%**	**31%**	**10%**	**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%	1.26 - 1.50%	≥ 1.51%
Average	**6%**	**22%**	**21%**	**22%**	**17%**	**9%**	**3%**	**2%**

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%**	**6%**	**11%**	**21%**	**33%**	**19%**	**6%**

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%**	**8%**	**11%**	**16%**	**29%**	**18%**	**12%**

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.
(20 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	**11%**	**42%**	**19%**	**13%**	**9%**	**4%**	**1%**	**1%**

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	**15%**	**47%**	**20%**	**11%**	**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	**-0.35%**
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.
(19 responses)

Several dealers noted that their expectations for the level of the target range for federal funds increased since the time of the December survey, and several others indicated that there had been no change to their expectations. Additionally, several dealers indicated that they increased their expectations for the target federal funds range because their expectations for fiscal stimulus had increased.

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 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	**0.00%**	**0.25%**	**0.50%**	**0.50%**
Median	**0.25%**	**0.50%**	**0.75%**	**0.88%**
75th Pctl	**0.63%**	**1.00%**	**1.00%**	**1.00%**

Please explain the factors behind any changes to your estimates since the policy survey on October 23.
(17 responses)

Several dealers indicated that there had been no change to their estimates, and several noted that they updated their estimates to reflect the passage of the Tax Cuts and Jobs Act.

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 the FOMC participants' projections for these indicators in the December 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 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 SEP median 3.9%	+ 50 bps
2018 Core PCE inflation (Q4/Q4 growth)	- 50 bps	**1.88%**	**1.63%**	**1.38%**
	Current SEP median 1.9%	**2.38%**	**2.13%**	**1.88%**
	+ 50 bps	**2.63%**	**2.63%**	**2.38%**

Median Responses		2018 Unemployment rate (Q4 average level)		
		- 50 bps	Current SEP median 3.9%	+ 50 bps
2018 Core PCE inflation (Q4/Q4 growth)	- 50 bps	1.88%	1.88%	1.63%
	Current SEP median 1.9%	2.38%	2.37%	2.13%
	+ 50 bps	2.88%	2.63%	2.38%

75th Percentile Responses		2018 Unemployment rate (Q4 average level)		
		- 50 bps	Current SEP median 3.9%	+ 50 bps
2018 Core PCE inflation (Q4/Q4 growth)	- 50 bps	2.13%	1.88%	1.88%
	Current SEP median 1.9%	2.63%	2.38%	2.13%
	+ 50 bps	3.13%	2.68%	2.63%

Please explain any assumptions underlying your responses.
(22 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 change in core PCE inflation than to a 50-basis-point change in the unemployment rate.

6) 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	3%	8%	20%	38%	22%	6%	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	4%	9%	16%	23%	27%	13%	8%

7a) The minutes of the December 2017 FOMC meeting noted that participants "discussed the recent narrowing of the gap between the yields on long- and short-maturity nominal Treasury securities." Please indicate the percent chance that you attach to the spread between 3-month and 10-year U.S. Treasury yields falling in each of the following ranges at its narrowest point between now and the end of 2018. For reference, the current spread between 3-month and 10-year U.S. Treasury yields is around 115 bps.

Additionally, conditional on the narrowest spread falling in each range, please indicate the probability that you attach to the U.S. economy being in a recession* at any point in the 12 months subsequent to when the spread first reaches this level.
(22 responses)

Probability of narrowest 3m-10y spread falling in range				
	< 0 bps	0-40 bps	41-80 bps	81-115 bps (last observed)
Average	**10%**	**28%**	**37%**	**26%**

	Point Estimate for Most Likely Outcome for Narrowest 3m-10y Spread
25th Pctl	**40**
Median	**61**
75th Pctl	**80**

Probability of recession in subsequent 12 months conditional on spread falling in range				
	< 0 bps	0-40 bps	41-80 bps	81-115 bps (last observed)
Average	**37%**	**24%**	**16%**	**13%**

**NBER-defined recession*

7b) If you expect the spread between 3-month and 10-year U.S. Treasury yields to narrow further at some point between now and the end of 2018, please discuss what factors you expect to drive this narrowing.

Most dealers expected a further narrowing in the spread to be driven by additional increases in the target federal funds range, and several indicated that a further narrowing could be driven by increased issuance of short-term U.S. government debt. Additionally, several dealers indicated that a further narrowing could be driven by low inflation data or inflation expectations and demand for long-dated U.S. Treasuries.

7c) Please comment on your assumptions in arriving at the recession probabilities you provided in question 7a.

Several dealers indicated that they did not view the shape of the yield curve as a good predictor of recession, while alternatively

several indicated that they did. In addition, several dealers noted that their conditional recession probabilities were informed by the historical record and that global central bank actions are a factor influencing the shape of the yield curve that could reduce its current usefulness in signaling recessions.

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 2020, conditional on **not** moving to the ZLB at any point between now and the end of 2020. For reference, the level of the SOMA portfolio on January 10th, 2018 was $4246 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	**24%**	**50%**	**18%**	**6%**	**1%**

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 2020, conditional on moving to the ZLB at any point between now and the end of 2020. 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 2020 in question 3. Levels referenced below are in $ billions.
(21 responses)

	≤ 4000	4001 - 4500	4501 - 5000	5001 - 5500	≥ 5501
Average	**25%**	**35%**	**22%**	**12%**	**6%**

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

		Q4/Q4 2018	Q4/Q4 2019	Q4/Q4 2020	Longer Run
GDP	25th Pctl	**2.30%**	**1.80%**	**1.60%**	**1.70%**
	Median	**2.50%**	**2.05%**	**1.80%**	**1.80%**
	75th Pctl	**2.80%**	**2.40%**	**2.00%**	**2.00%**
Core PCE Deflator	25th Pctl	**1.80%**	**1.90%**	**1.90%**	**-**
	Median	**1.90%**	**2.00%**	**2.00%**	**-**
	75th Pctl	**1.90%**	**2.00%**	**2.00%**	**-**
Headline PCE Deflator	25th Pctl	**1.70%**	**1.90%**	**2.00%**	**2.00%**
	Median	**1.90%**	**2.00%**	**2.00%**	**2.00%**
	75th Pctl	**2.00%**	**2.10%**	**2.20%**	**2.00%**
Unemployment Rate*	25th Pctl	**3.70%**	**3.50%**	**3.70%**	**4.40%**
	Median	**3.80%**	**3.75%**	**3.80%**	**4.50%**
	75th Pctl	**3.90%**	**3.80%**	**4.10%**	**4.50%**

Average level of the unemployment rate over Q4.

9b) Provide your estimate of the most likely outcome for the U.S. federal fiscal deficit (as a percent of GDP) for fiscal years 2018, 2019 and 2020.
(19 responses)

	FY 2018	FY 2019	FY 2020
25th Pctl	**3.50%**	**4.30%**	**4.20%**
Median	**3.70%**	**4.50%**	**4.53%**
75th Pctl	**4.08%**	**4.90%**	**4.90%**

9c) Please explain changes to your estimates in parts a and b since the policy survey on December 4, where applicable.
(21 responses)

Some dealers expected wider fiscal deficits as a result of recently-passed tax legislation. Several dealers expected more military spending and more discretionary non-military spending, including more spending on disaster relief. Finally, several dealers expected higher economic growth due to recently-passed tax legislation.

9d-i) Please indicate any changes (combining direct and indirect effects) to your estimates of the U.S. federal fiscal deficit (as a percent of GDP) for fiscal years 2018, 2019, and 2020 resulting from the passage of the Tax Cuts and Jobs Act, compared to previously existing law.
(18 responses)

	FY 2018	FY 2019	FY 2020
25th Pctl	**0.30%**	**0.80%**	**0.68%**
Median	**0.50%**	**1.10%**	**1.00%**
75th Pctl	**0.70%**	**1.30%**	**1.20%**

9d-ii) Additionally, please indicate any changes (combining direct and indirect effects) to your estimates of GDP (Q4/Q4 growth) and core PCE deflator (Q4/Q4 growth) in 2018, 2019, and 2020 resulting from the passage of the Tax Cuts and Jobs Act, compared to previously existing law.
(16 responses)

Change in GDP (Q4/Q4 growth)				Change in core PCE deflator (Q4/Q4 growth)			
	2018	2019	2020		2018	2019	2020
25th Pctl	**0.20%**	**0.10%**	**0.00%**	25th Pctl	**0.00%**	**0.00%**	**0.00%**
Median	**0.30%**	**0.18%**	**0.00%**	Median	**0.00%**	**0.00%**	**0.00%**
75th Pctl	**0.40%**	**0.30%**	**0.10%**	75th Pctl	**0.10%**	**0.10%**	**0.05%**

9d-iii) Other than the Tax Cuts and Jobs Act, please provide your expectations for further changes to U.S. federal fiscal policy between now and the end of 2020, if any.

Many dealers expected an increase in federal government spending. Several dealers expected an increase in discretionary

non-defense and/or defense spending caps and additional spending or appropriations for disaster relief. Additionally, several noted the possibility of an increase in infrastructure spending, while several others expected little or no further change to fiscal policy.

10a) For the outcomes below, provide the percent chance you attach to the annual average CPI inflation rate from January 1, 2018 – December 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	**3%**	**11%**	**29%**	**38%**	**14%**	**5%**

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

10b) For the outcomes below, provide the percent chance you attach to the annual average CPI inflation rate from January 1, 2023 – December 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	**4%**	**11%**	**31%**	**36%**	**13%**	**5%**

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

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	**1%**	25th Pctl	**5%**	25th Pctl	**5%**
Median	**5%**	Median	**10%**	Median	**10%**
75th Pctl	**5%**	75th Pctl	**10%**	75th Pctl	**10%**

***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.
(15 responses)

Several dealers noted that they made no change to their recession probabilities.