RESPONSES TO SURVEY OF MARKET PARTICIPANTS

Markets Group, Federal Reserve Bank of New York

DECEMBER 2017

Distributed: 11/30/2017 – Received by: 12/4/2017

The **Survey of Market Participants** 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 24 respondents. Except where noted, all 24 respondents responded to each question. In some cases, dealers 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 Market Participants:
www.newyorkfed.org/markets/survey_market_participants.html

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

Current economic conditions:

Several respondents expected no material changes to the Committee's characterization of current economic conditions. Several respondents expected the Committee to remove the language regarding the economic impact of recent hurricanes, and several expected the Committee to note continued tightening in the labor market. With regard to inflation, several respondents expected the Committee to acknowledge recent stabilization of inflation data, and several expected the Committee to acknowledge continued softness in inflation data.

Economic outlook:
(23 responses)

Several respondents noted that they expected no change to the Committee's characterization of the economic outlook.

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

Other than an increase in the target range, many respondents noted that they expect no change 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:
(22 responses)

Many respondents noted that they expected no change to the Committee's communication on its policy of reinvesting principal payments on Treasury and agency securities.

Other:
(8 responses)

Respondents did not provide substantial commentary in this section.

1b) What are your expectations for the medians of FOMC participants' economic projections in the Summary of Economic Projections (SEP)?

Relative to the GDP growth projections prepared for the September meeting, several respondents expected the median projection for 2018 to increase. Relative to the unemployment rate projections prepared for the September meeting, several respondents expected the median projection for 2017 to decline, and several expected the median projection for 2018 to

decline. Finally, some respondents expected no material change to the Committee's economic projections.

1c) What are your expectations for the most likely levels of the medians of FOMC participants' <u>target federal funds rate</u> projections in the SEP?

	Year-end 2017	Year-end 2018	Year-end 2019	Year-end 2020	Longer Run
25th Pctl	**1.38%**	**2.13%**	**2.69%**	**2.88%**	**2.75%**
Median	**1.38%**	**2.13%**	**2.69%**	**2.88%**	**2.75%**
75th Pctl	**1.38%**	**2.16%**	**2.88%**	**2.88%**	**2.88%**

Please comment on the balance of risks around your expectations.
(21 responses)

Several respondents noted that they perceived upside risk to FOMC participants' 2018 median target rate projection.

1d) Additionally, please describe any expected changes to the distributions of FOMC participants' target rate projections, if applicable.
(19 responses)

Several respondents suggested that the distributions of FOMC participants' target federal funds rate projections for year-ends 2017, 2018, 2019, 2020 and/or the longer-run could shift higher, while several others noted that they expected no significant changes to the distributions of participants' target rate projections. Additionally, several respondents suggested that the dispersion of participants' target rate projections beyond 2018 would either widen or remain wide.

1e) What are your expectations for the Chair's press conference?
(21 responses)

Several respondents expected the Chair to note uncertainty about inflation dynamics and several expected her to reiterate that gradual increases in the target range remain appropriate. Additionally, several expected her to comment on the potential economic implications of tax reform.

2a) 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.

	Dec. 12-13 2017	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
25th Pctl	1.38%	1.38%	1.38%	1.38%	1.63%	1.63%	1.88%
Median	1.38%	1.38%	1.63%	1.63%	1.88%	1.88%	2.06%
75th Pctl	1.38%	1.38%	1.63%	1.63%	1.88%	1.88%	2.13%
# of Responses	24	24	24	24	24	24	24
	2018 Q4	2019 Q1	2019 Q2	2019 Q3	2019 Q4	2020 H1	2020 H2
25th Pctl	2.06%	2.13%	2.38%	2.38%	2.50%	2.50%	2.50%
Median	2.13%	2.38%	2.44%	2.63%	2.75%	2.75%	2.81%
75th Pctl	2.38%	2.38%	2.63%	2.88%	2.88%	3.06%	3.06%
# of Responses	24	24	24	24	24	24	24

2b)   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%	2.34%
75th Pctl	3.00%	2.50%

2c)   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 2018.

	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	91%	2%	7%

2d)   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 December 2017 FOMC meeting	Increase Occurs at January 2018 FOMC meeting	Increase Occurs at March 2018 FOMC meeting or later
Average	92%	4%	4%

2e)   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 even 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 January 2018 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	4%	2%	6%	12%	26%	25%	19%	6%

Next change is an increase, occurs at March 2018 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	4%	4%	12%	22%	29%	17%	8%	4%

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	13%	34%	21%	17%	10%	3%	1%	0%

2f-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.

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%	6%	14%	24%	29%	16%	5%

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	8%	8%	13%	20%	25%	18%	8%

2f-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	13%
Median	24%
75th Pctl	35%

2f-iii) Please indicate the percent chance that you attach to the target federal funds rate or range falling in each of the following ranges <u>at the end of 2019 and 2020</u>, <u>conditional on moving to the ZLB at some point between now and the end of 2020</u>. 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.
(23 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%	49%	15%	9%	5%	3%	4%	4%

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%	61%	13%	7%	2%	1%	0%	0%

2f-iv) What is your estimate of the target federal funds rate or range at the effective lower bound?
(23 responses)

	Level of Target Fed Funds Rate or Range at ELB
25th Pctl	-0.50%
Median	0.00%
75th Pctl	0.00%

2g) For parts a-f, please explain the factors behind any change to your expectations, where applicable, since the last policy survey.
(20 responses)

> **Several respondents indicated either no change or no material change to their policy expectations since the last survey, while several others noted that their expectations were updated to reflect the perception of a higher likelihood of fiscal stimulus.**

3a) Provide your estimate of the most likely outcome for the 10-year Treasury yield at the end of each period below. In addition, provide your estimate of the longer-run level of the 10-year Treasury yield.

	2017 Q4	2018 Q1	2018 Q2	2018 Q3	2018 Q4
25th Pctl	2.40%	2.48%	2.50%	2.58%	2.63%
Median	2.40%	2.53%	2.70%	2.83%	2.95%
75th Pctl	2.50%	2.60%	2.75%	2.90%	3.00%
# of Responses	24	24	24	24	24
	2019 H1	2019 H2	2020 H1	2020 H2	Longer Run
25th Pctl	2.70%	2.61%	2.50%	2.50%	2.63%
Median	3.00%	3.00%	3.00%	3.00%	3.00%
75th Pctl	3.23%	3.25%	3.25%	3.25%	3.25%
# of Responses	24	24	24	24	24

3b) Provide your estimate of the most likely outcome for the 30-year fixed primary mortgage rate at the end of each period below. In addition, provide your estimate of the longer-run level of the 30-year fixed primary mortgage rate.

	2017 Q4	2018 Q1	2018 Q2	2018 Q3	2018 Q4
25th Pctl	3.90%	4.00%	4.10%	4.15%	4.20%
Median	3.95%	4.10%	4.21%	4.30%	4.40%
75th Pctl	4.00%	4.20%	4.40%	4.60%	4.63%
# of Responses	21	21	21	21	21
	2019 H1	2019 H2	2020 H1	2020 H2	Longer Run
25th Pctl	4.25%	4.20%	3.95%	3.80%	4.05%
Median	4.50%	4.50%	4.51%	4.55%	4.63%
75th Pctl	4.75%	4.70%	4.75%	4.80%	5.00%
# of Responses	21	21	21	21	21

4a) The spread between 2-year and 30-year U.S. Treasury yields has narrowed around 100 bps since December 2015. Please decompose this change into the following components. Please ensure that your sum matches -100 bps. **Please also ensure that your signs are correct.**
(22 responses)

	Change in market expectations for the average effective federal funds rate over the following 2 years (bps)	Change in market-implied 2-year nominal term premium (bps)	Change in market expectations for the average effective federal funds rate over the following 30 years (bps)	Change in market-implied 30-year nominal term premium (bps)	Other (please explain) (bps)
Median	-71	0	-7	-20	-1

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

Respondents did not provide substantial commentary in this section.

4b) Please rate the importance of the following factors in explaining the change in the spread between 2-year and 30-year Treasury yields over this period **(5=very important, 1=not important)**.
(23 responses)

	Change in expected U.S. economic growth	Change in expected U.S. inflation	Change in estimates of the longer-run neutral real federal funds rate	Change in expected net supply of Treasuries held by the public	Change in expectations for maturity distribution of Treasury issuance	Spillovers from foreign monetary policy	Change in demand for longer-dated Treasuries from liability-driven investors	Other (please explain)
Average	3.22	3.52	3.35	2.57	2.83	3.09	3.22	4.00

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

Respondents did not provide substantial commentary in this section.

4c-i) Please comment on what signals regarding the U.S. economic outlook, if any, you draw from the level of and/or flattening in the yield curve.
(23 responses)

Several respondents indicated that they did not take a strong economic signal from the level and/or flattening of the yield curve. Several noted that they perceived the flattening to reflect technical demand factors (including demand from pension funds), while several noted that the flattening may signal maturation of the economic cycle. Finally, several respondents indicated that the flattening may reflect lower inflation expectations.

4c-ii) Please comment on what impact, if any, the flattening of the yield curve may have on U.S. economic outcomes.
(21 responses)

Several respondents noted that the flattening of the yield curve may not affect U.S. economic outcomes.

5a) 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 November 22nd, 2017 was $4257 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.
(22 responses)

	≤ 3000	3001 - 3500	3501 - 4000	4001 - 4500	≥ 4501
Average	20%	47%	24%	8%	2%

5b) Please indicate the percent chance that you attach to the following possible outcomes for the par value of the SOMA portfolio <u>at the end of 2020</u>, <u>conditional on moving to the ZLB at any point between now and the end of 2020</u>. 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 2. Levels referenced below are in $ billions.
(22 responses)

	≤ 4000	4001 - 4500	4501 - 5000	5001 - 5500	≥ 5501
Average	22%	23%	20%	18%	17%

6) During 2017 to date, the average size of the Federal Reserve System's balance sheet was $4464 billion, and was composed roughly as follows:

Assets*	Level ($ Bn)	Share	Liabilities and Capital*	Level ($ Bn)	Share
US Treasuries	2464	55%	Federal Reserve Notes	1505	34%
Agency MBS	1769	40%	Reserves	2252	50%
All Other Assets**	231	5%	Deposits in Treasury General Account (TGA)	178	4%
Total Assets	4464	100%	Reverse Repos with Private Counterparties	156	3%
			Reverse Repos with Foreign Official Accounts	243	5%
			Other Deposits***	74	2%
			All Other Liabilities and Capital	55	1%
			Total Liabilities and Capital	4464	100%

Individual categories rounded to the nearest $ billion.
**Includes net unamortized premiums and discounts on securities held outright, repos, and other assets.*
***Includes balances held by designated financial market utilities (DFMUs), government sponsored entities (GSEs) and international and multilateral organizations.*

The figures above refer to averages of Wednesday levels from 2017 H.4.1 releases through 11/24.

Please indicate your expectations for the composition of the Federal Reserve System's balance sheet, on average, in 2025, <u>conditional on **not** moving to the ZLB at any point between now and the end of 2025</u>. Please provide your responses in levels ($ billions), the total levels and shares will automatically populate so as to aid responding. Please ensure total assets are equal to total liabilities plus capital.
(15 responses)

Results to this question are on the following page.

Question text related to these results are on the previous page.

Assets		Level	Liabilities and Capital		Level
US Treasuries	25th Pctl	2175	Federal Reserve Notes	25th Pctl	2016
	Median	2600		Median	2230
	75th Pctl	2789		75th Pctl	2500
Agency MBS	25th Pctl	605	Reserves	25th Pctl	240
	Median	750		Median	640
	75th Pctl	870		75th Pctl	700
All Other Assets*	25th Pctl	200	Deposits in Treasury General Account (TGA)	25th Pctl	200
	Median	231		Median	300
	75th Pctl	250		75th Pctl	400
			Reverse Repos with Private Counterparties	25th Pctl	64
				Median	100
				75th Pctl	150
			Reverse Repos with Foreign Official Accounts	25th Pctl	160
				Median	243
				75th Pctl	250
			Other Deposits**	25th Pctl	59
				Median	75
				75th Pctl	100
			All Other Liabilities and Capital	25th Pctl	50
				Median	50
				75th Pctl	55

Includes net unamortized premiums and discounts on securities held outright, repos, and other assets.
**Includes balances held by designated financial market utilities (DFMUs), government sponsored entities (GSEs) and international and multilateral organizations.*

	Total Assets	Total Liabilities and Capital
25th Pctl	3130	3250
Median	3589	3600
75th Pctl	3870	3890

Note: Due to partial responses, total assets do not equal total liabilities/capital at all percentiles.

7a) 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.
(22 responses)

	FY 2018	FY 2019	FY 2020
25th Pctl	3.40%	3.75%	4.00%
Median	3.50%	4.00%	4.30%
75th Pctl	3.80%	4.30%	4.90%

7b) Please explain changes to your estimates in part a since the last policy survey, where applicable.
(20 responses)

Some respondents noted that they updated their forecasts to reflect their perception of the likelihood of tax reform.

8a) For the outcomes below, provide the percent chance you attach to the annual average CPI inflation rate from December 1, 2017 – November 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	5%	13%	34%	29%	14%	6%

	Most Likely Outcome
25th Pctl	1.90%
Median	2.00%
75th Pctl	2.10%

8b) For the outcomes below, provide the percent chance you attach to the annual average CPI inflation rate from December 1, 2022 – November 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	5%	13%	28%	31%	16%	7%

	Most Likely Outcome
25th Pctl	2.00%
Median	2.08%
75th Pctl	2.25%