

RESPONSES TO SURVEY OF PRIMARY DEALERS

Markets Group, Federal Reserve Bank of New York



SEPTEMBER 2022

Distributed: 09/07/2022 – Received by: 09/12/2022

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 25 primary dealers. Except where noted, all 25 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.

Table of Contents

Q-1)	FOMC Meeting Expectations
Q-2)	Target Federal Funds Rate/Range and Lower Bound Expectations* Updated Responses
Q-3)	Federal Reserve Assets
Q-4)	U.S. Real GDP Growth Probability Distributions
Q-5)	Inflation Probability Distributions
Q-6)	U.S. and Global Recession Probabilities
Q-7)	Estimates of Economic Indicators* Updated Responses

*Dealers were asked to update their responses to these questions following the September 2022 FOMC Meeting. Updated responses can be found starting on page 13.

- 1a)** Provide below your expectations for changes, if any, to the language referencing each of the following topics in the September FOMC statement. Please write N/A if you do not expect any changes.

Current economic conditions:

Some dealers indicated they expected little or no change. Some dealers indicated they expected a mention of moderation in overall price increases or energy prices, and some expected continued reference to elevated inflation. Several dealers expected the statement to note the strong labor market. Several expected the statement to mention improved economic activity.

Economic outlook and communication on the expected path of the target federal funds rate:

Many dealers indicated they expected little or no change. Several dealers indicated they expected continued reference to ongoing rate increases being appropriate, or some indication of further rate tightening.

Communication on tools other than the target federal funds rate:
(23 responses)

Most dealers indicated they expected little or no change.

Other:
(15 responses)

Dealers did not provide significant commentary in this section.

- 1b)** What are your expectations for the most likely levels of the medians of FOMC participants' target federal funds rate projections in the SEP? Please provide your responses out to three decimal places.
(22 responses)

	Year-End 2022	Year-End 2023	Year-End 2024	Year-End 2025	Longer Run
25th Pctl	3.88%	3.88%	3.38%	2.63%	2.50%
Median	3.88%	4.13%	3.63%	2.88%	2.50%
75th Pctl	3.88%	4.13%	3.88%	3.06%	2.50%

- 1c)** What are your expectations for the Chair's press conference?
(24 responses)

Many dealers indicated they expected the Chair to reiterate the FOMC's focus on inflation or its commitment to returning inflation to target. Several expected the Chair to note that below trend growth may be necessary to restore price stability.

Some dealers indicated they expected the Chair's press conference remarks to be similar to his recent speeches at Jackson Hole or the Cato Institute.

Several dealers indicated they expected the Chair to note that the pace of tightening is expected to slow going forward. Several expected the Chair to note that policy rates will need to remain at a restrictive level for some time.

Several expected the Chair to mention that policy is data-dependent or that it is not on a pre-set course.

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

	Sep. 20-21	Nov. 1-2	Dec. 13-14	Jan. 31 - Feb. 1	Mar. 21-22	May 2-3	Jun. 13-14
25th Pctl	3.13%	3.63%	3.88%	3.88%	3.88%	3.88%	3.88%
Median	3.13%	3.63%	3.88%	3.88%	3.88%	3.88%	3.88%
75th Pctl	3.13%	3.63%	3.88%	4.13%	4.13%	4.13%	4.13%
# of Responses	25	25	25	25	25	25	25

	2023 Q3	2023 Q4	2024 Q1	2024 Q2	2024 Q3	2024 Q4
25th Pctl	3.88%	3.63%	3.13%	2.88%	2.63%	2.38%
Median	3.88%	3.88%	3.38%	3.13%	2.88%	2.63%
75th Pctl	4.13%	4.13%	3.88%	3.88%	3.63%	3.63%
# of Responses	25	25	21	21	21	21

	2025 Q1	2025 Q2	2025 Q3	2025 Q4
25th Pctl	2.19%	2.19%	2.19%	2.19%
Median	2.63%	2.63%	2.50%	2.38%
75th Pctl	3.31%	3.13%	3.06%	2.81%
# of Responses	18	18	18	18

	2026	2027	2028	2029
25th Pctl	2.13%	2.13%	2.13%	2.13%
Median	2.38%	2.38%	2.38%	2.38%
75th Pctl	2.63%	2.63%	2.38%	2.38%
# of Responses	17	17	17	17

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	2.25%	2.25%
Median	2.38%	2.50%
75th Pctl	2.50%	2.80%

- 2c)** Please indicate the percent chance that you attach to the target federal funds rate or range falling in each of the following ranges immediately following the September and November FOMC meetings and at the end of 2022, 2023, 2024, and 2025. If you expect a target range, please use the midpoint of that range in providing your response.
(18 responses)

Federal Funds Rate or Range after the September 2022 FOMC Meeting										
	<= 1.50%	1.51 - 1.75%	1.76 - 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	0%	0%	0%	0%	0%	1%	22%	73%	3%	0%

Federal Funds Rate or Range after the November 2022 FOMC Meeting										
	<= 2.50%	2.51 - 2.75%	2.76 - 3.00%	3.01 - 3.25%	3.26 - 3.50%	3.51 - 3.75%	3.76 - 4.00%	4.01 - 4.25%	4.26 - 4.50%	>= 4.51%
Average	0%	0%	1%	8%	25%	43%	19%	2%	0%	0%

Federal Funds Rate or Range at the End of 2022										
	<= 2.50%	2.51 - 2.75%	2.76 - 3.00%	3.01 - 3.25%	3.26 - 3.50%	3.51 - 3.75%	3.76 - 4.00%	4.01 - 4.25%	4.26 - 4.50%	>= 4.51%
Average	1%	0%	1%	2%	9%	21%	37%	20%	6%	2%

Federal Funds Rate or Range at the End of 2023										
	<= 2.50%	2.51 - 2.75%	2.76 - 3.00%	3.01 - 3.25%	3.26 - 3.50%	3.51 - 3.75%	3.76 - 4.00%	4.01 - 4.25%	4.26 - 4.50%	>= 4.51%
Average	7%	3%	4%	6%	9%	13%	17%	16%	14%	12%

Federal Funds Rate or Range at the End of 2024										
	<= 1.75%	1.76 - 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 - 3.75%	>= 3.76%
Average	8%	5%	11%	13%	12%	12%	9%	7%	7%	16%

Federal Funds Rate or Range at the End of 2025										
	<= 1.75%	1.76 - 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 - 3.75%	>= 3.76%
Average	14%	8%	12%	14%	15%	11%	8%	5%	3%	10%

- 2d)** 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	0.00%
Median	0.13%
75th Pctl	0.13%

2e) For parts a-d, please explain the factors behind any change to your expectations, where applicable, since the last policy survey.

Some dealers indicated they changed their modal expectations for the target range for the federal funds rate compared with their prior survey response due to communications from FOMC officials. Several dealers attributed changes in their policy expectations to more persistent elevated inflation, and several cited the tight labor market.

2f) Please indicate the percent chance that you attach to the highest level of the target range for the federal funds rate before the target range is next decreased falling in each of the following ranges.

	<= 2.50%	2.51 - 2.75%	2.76 - 3.00%	3.01 - 3.25%	3.26 - 3.50%	3.51 - 3.75%	3.76 - 4.00%	4.01 - 4.25%	4.26 - 4.50%	>= 4.51%
Average	0%	0%	1%	2%	5%	11%	21%	25%	18%	16%

2g) Please describe your expectations for inflation and employment conditions at the time the target range for the federal funds rate reaches the level indicated in part f.

Most dealers saw core inflation either lower than current levels and/or trending lower at the time the target range for the federal funds rate reaches its highest level before it is next decreased. Several dealers saw core PCE between 2.5 and 3.0 percent, and several others saw core PCE between 3.0 and 4.5 percent. Many dealers expected the unemployment rate to be similar to or slightly higher than current levels, while several other dealers expected the unemployment rate to be between 4.5 and 5.5 percent. Several dealers expected the unemployment rate to be trending higher.

3a) Please provide your modal expectation for the total net change in SOMA holdings of U.S. Treasury securities and agency mortgage-backed securities (MBS) over each of the periods below.

If you expect SOMA holdings to increase on net in a given period, for example through net asset purchases, please enter a positive number. If you expect SOMA holdings to be unchanged on net in a given period, for example through reinvestments that result in no net change in holdings, please enter 0. If you expect SOMA holdings to decline on net in a given period, for example through maturities or paydowns that exceed any reinvestments or through sales, please enter a negative number.

(23 responses)

Net Change in U.S. Treasury Securities (\$ billions)						
	Oct. 2022	Nov. 2022	Dec. 2022	Jan. 2023	Feb. 2023	Mar. 2023
25th Pctl	-60	-60	-60	-60	-60	-60
Median	-60	-60	-60	-60	-60	-60
75th Pctl	-60	-60	-60	-60	-60	-60

Net Change in U.S. Treasury Securities (\$ billions)							
	2023 Q2	2023 Q3	2023 Q4	2024 Q1	2024 Q2	2024 Q3	2024 Q4
25th Pctl	-180	-180	-180	-180	-180	-180	-165
Median	-180	-180	-180	-90	-68	-10	0
75th Pctl	-180	-180	-90	0	0	0	10

Net Change in U.S. Treasury Securities (\$ billions)				
	2025 Q1	2025 Q2	2025 Q3	2025 Q4
25th Pctl	-105	-15	0	0
Median	0	0	0	0
75th Pctl	42	56	59	52

Net Change in Agency MBS (\$ billions)						
	Oct. 2022	Nov. 2022	Dec. 2022	Jan. 2023	Feb. 2023	Mar. 2023
25th Pctl	-26	-28	-29	-29	-30	-33
Median	-23	-21	-21	-21	-21	-24
75th Pctl	-20	-19	-19	-16	-16	-16

Net Change in Agency MBS (\$ billions)							
	2023 Q2	2023 Q3	2023 Q4	2024 Q1	2024 Q2	2024 Q3	2024 Q4
25th Pctl	-101	-93	-87	-91	-91	-90	-75
Median	-78	-77	-65	-60	-60	-60	-54
75th Pctl	-60	-60	-47	-41	-5	-3	0

Net Change in Agency MBS (\$ billions)				
	2025 Q1	2025 Q2	2025 Q3	2025 Q4
25th Pctl	-74	-73	-69	-68
Median	-50	-54	-55	-49
75th Pctl	0	0	0	0

- 3b)** Please indicate the period in which you expect the SOMA portfolio will cease to decline as well as the size of the SOMA portfolio when it ceases to decline. Please also indicate the size of specified liabilities, reserves and take-up at the overnight reverse repurchase facility, when the SOMA portfolio ceases to decline.
(24 responses)

	Period in which SOMA Portfolio Ceases to Decline*:	Size of SOMA Portfolio when it Ceases to Decline**:	Size of reserves***:	Take-up at the overnight reverse repurchase facility****:
25th Pctl	Q1 2024	5750	2125	563
Median	Q4 2024	6750	2375	875
75th Pctl	Q2 2025	7250	2687.5	1438

*Dropdown selections: Q4 2022, Q1 2023, Q2 2023, Q3 2023, Q4 2023, Q1 2024, Q2 2024, Q3 2024, Q4 2024, Q1 2025, Q2 2025, Q3 2025, Q4 2025, Q1 2026, Q2 2026, Q3 2026, Q4 2026, Q1 2027, Q2 2027, Q3 2027, Q4 2027, Q1 2028, Q2 2028, Q3 2028, Q4 2028, Q1 2029 or later.

**Dropdown selections: \$0-500bn, \$501-1000bn, \$1001-1500bn, \$1501-2000bn, \$2001-2500bn, \$2501-3000bn, \$3001-3500bn, \$3501-4000bn, \$4001-4500bn, \$4501-5000bn, \$5001-5500bn, \$5501-6000bn, \$6001-6500bn, \$6501-7000bn, \$7001-7500bn, \$7501-8000bn, \$8001bn or larger

***Dropdown selections: \$1000bn or smaller, \$1001-1250bn, \$1251-1500bn, \$1501-1750bn, \$1751-2000bn, \$2001-2250bn, \$2251-2500bn, \$2501-2750bn, \$2751-3000bn, \$3001-3250bn, \$3251-3500bn, \$3501-3750bn, \$3751-4000bn, \$4001bn or larger.

****Dropdown selections: \$0-250bn, \$251-500bn, \$501-750bn, \$751-1000bn, \$1001-1250bn, \$1251-1500bn, \$1501-1750bn, \$1751-2000bn, \$2001-2250bn, \$2251-2500bn, \$2501bn or larger.

- 3c)** Please indicate the percent chance that you attach to the size of the SOMA portfolio falling in each of the following ranges when it ceases to decline. For reference, Securities Held Outright in the SOMA portfolio on August 31, 2022 was \$8,407 billion according to the most recent H.4.1 release.

	\$4000bn or smaller	\$4001-4500bn	\$4501-5000bn	\$5001-5500bn	\$5501-6000bn	\$6001-6500bn	\$6501-7000bn	\$7001-7500bn	\$7501bn or larger
Average	1%	1%	4%	11%	15%	16%	21%	21%	10%

- 3d)** Please provide any additional information on your expectations for balance sheet reduction and the period in which you expect the SOMA portfolio will cease to decline. Please include any factors that influenced the probability that you assigned to the distribution of outcomes in part c above.
(23 responses)

Some dealers indicated they expected an earlier end to balance sheet reduction or saw risks of an earlier end due to expectations for a slowdown in growth or due to policy rate cuts. Several dealers indicated they expected an earlier end to balance sheet reduction or saw risks of an earlier end due to reserve or ON RRP take-up dynamics. Several dealers indicated they expected a decline in take-up at the ON RRP facility.

Some dealers indicated they expected MBS maturities to fall short of the maximum cap on monthly MBS securities reductions. Some dealers indicated they viewed MBS sales as likely or possible at some point. Several dealers indicated they expected a rotation of MBS maturities into Treasuries after the balance sheet ceases to decline.

- 4)** Please provide the percent chance you attach to the following outcomes for U.S. real GDP growth in 2022, 2023, 2024, and 2025 (Q4/Q4).

(17 responses)

Probability Distribution of U.S. Real GDP Growth in 2022 (Q4/Q4)										
	<= -1.01%	-1.00 - -0.51%	-0.50 - 0.00%	0.01 - 0.50%	0.51 - 1.00%	1.01 - 1.50%	1.51 - 2.00%	2.01 - 2.50%	2.51 - 3.00%	>= 3.01%
Average	4%	10%	22%	27%	22%	10%	2%	1%	0%	1%

Probability Distribution of U.S. Real GDP Growth in 2023 (Q4/Q4)										
	<= -1.01%	-1.00 - -0.51%	-0.50 - 0.00%	0.01 - 0.50%	0.51 - 1.00%	1.01 - 1.50%	1.51 - 2.00%	2.01 - 2.50%	2.51 - 3.00%	>= 3.01%
Average	8%	10%	15%	15%	15%	16%	10%	6%	4%	2%

Probability Distribution of U.S. Real GDP Growth in 2024 (Q4/Q4)										
	<= -1.01%	-1.00 - -0.51%	-0.50 - 0.00%	0.01 - 0.50%	0.51 - 1.00%	1.01 - 1.50%	1.51 - 2.00%	2.01 - 2.50%	2.51 - 3.00%	>= 3.01%
Average	2%	3%	6%	9%	14%	19%	21%	12%	8%	6%

Probability Distribution of U.S. Real GDP Growth in 2025 (Q4/Q4)										
	<= -1.01%	-1.00 - -0.51%	-0.50 - 0.00%	0.01 - 0.50%	0.51 - 1.00%	1.01 - 1.50%	1.51 - 2.00%	2.01 - 2.50%	2.51 - 3.00%	>= 3.01%
Average	3%	2%	3%	6%	10%	14%	20%	23%	12%	8%

Please also provide your point estimate for the most likely outcome.

(17 responses)

U.S. Real GDP Modal Point Estimates (Q4/Q4)				
	2022	2023	2024	2025
25th Pctl	-0.20%	-0.24%	1.50%	1.80%
Median	0.20%	0.80%	1.70%	2.00%
75th Pctl	0.50%	1.30%	2.00%	2.20%

5a) Please provide the percent chance you attach to the following outcomes for headline PCE inflation in 2022, 2023, 2024, and 2025 (Q4/Q4).

(17 responses)

Probability Distribution of Headline PCE Inflation in 2022 (Q4/Q4)										
	<= 3.00%	3.01 - 3.50%	3.51 - 4.00%	4.01 - 4.50%	4.51 - 5.00%	5.01 - 5.50%	5.51 - 6.00%	6.01 - 6.50%	6.51 - 7.00%	>= 7.01%
Average	1%	2%	3%	10%	18%	28%	19%	8%	6%	4%

Probability Distribution of Headline PCE Inflation in 2023 (Q4/Q4)										
	<= 1.50%	1.51 - 1.75%	1.76 - 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	5%	3%	4%	8%	16%	15%	15%	12%	11%	10%

Probability Distribution of Headline PCE Inflation in 2024 (Q4/Q4)										
	<= 1.50%	1.51 - 1.75%	1.76 - 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	5%	8%	15%	19%	18%	14%	10%	5%	3%	3%

Probability Distribution of Headline PCE Inflation in 2025 (Q4/Q4)										
	<= 1.50%	1.51 - 1.75%	1.76 - 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	6%	11%	22%	23%	16%	9%	5%	3%	2%	3%

Please also provide your point estimate for the most likely outcome.
(17 responses)

Headline PCE Inflation Modal Point Estimates (Q4/Q4)				
	2022	2023	2024	2025
25th Pctl	5.00%	2.50%	2.02%	2.00%
Median	5.20%	2.80%	2.20%	2.10%
75th Pctl	5.60%	3.10%	2.40%	2.20%

5b) For the outcomes below, provide the percent chance you attach to the annual average CPI inflation rate from September 1, 2022 - August 31, 2027 falling in each of the following ranges. Please also provide your point estimate for the most likely outcome.
(24 responses)

	<= 0.50%	0.51 - 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	1%	2%	5%	11%	23%	30%	19%	10%

Most Likely Outcome	
25th Pctl	2.49%
Median	2.78%
75th Pctl	2.97%

5c) For the outcomes below, provide the percent chance you attach to the annual average CPI inflation rate from September 1, 2027 - August 31, 2032 falling in each of the following ranges. Please also provide your point estimate for the most likely outcome.
(24 responses)

	<= 0.50%	0.51 - 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	1%	2%	8%	22%	39%	19%	7%	3%

Most Likely Outcome	
25th Pctl	2.24%
Median	2.30%
75th Pctl	2.40%

- 6a)** 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?
(24 responses)

	Currently in U.S. Recession	U.S. Recession in 6 Months	Global Recession in 6 Months
25th Pctl	5%	25th Pctl 20%	25th Pctl 35%
Median	10%	Median 30%	Median 45%
75th Pctl	20%	75th Pctl 50%	75th Pctl 51%

*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.

- 6b)** What percent chance do you attach to the U.S. economy first entering a recession* in each of the following periods?
(24 responses)

	2022**	H1 2023	H2 2023	H1 2024	H2 2024	No recession by end 2024
Average	23%	25%	17%	10%	6%	18%

*NBER-defined recession

**Includes the possibility that the economy may currently be in an NBER-defined recession.

- 6c)** Please explain the factors behind any change to your expectations in parts a and b since the last policy survey.

In explaining changes to their recession probabilities, among dealers citing reasons for a higher probability of recession, some cited the tightening of monetary policy or financial conditions. Several dealers noted the risk of a global recession or slowdown, and several specified the risk of a recession in Europe, including a downturn linked to the supply of energy.

- 7a)** Provide your estimate of the most likely outcome for output, inflation, and unemployment.
(17 responses)

		2022	2023	2024	2025	Longer Run
Real GDP (Q4/Q4 Growth)	25th Pctl	-0.20%	-0.25%	1.50%	1.80%	1.80%
	Median	0.20%	0.80%	1.70%	2.00%	1.90%
	75th Pctl	0.50%	1.30%	2.00%	2.20%	2.00%
Core PCE Inflation (Q4/Q4)	25th Pctl	4.10%	2.60%	2.20%	2.00%	-
	Median	4.30%	2.80%	2.30%	2.00%	-
	75th Pctl	4.60%	3.20%	2.40%	2.20%	-
Headline PCE Inflation (Q4/Q4)	25th Pctl	5.00%	2.50%	2.02%	2.00%	2.00%
	Median	5.20%	2.80%	2.20%	2.10%	2.00%
	75th Pctl	5.60%	3.10%	2.40%	2.20%	2.00%
Unemployment Rate (Q4 Average Level)	25th Pctl	3.60%	4.00%	4.10%	4.00%	4.00%
	Median	3.70%	4.50%	4.50%	4.40%	4.00%
	75th Pctl	3.80%	4.80%	5.00%	4.90%	4.25%

- 7b)** Please explain changes, if any, to your estimates in part a since the last policy survey.
(24 responses)

In describing the factors underlying changes to their estimates of real GDP growth, several dealers cited incoming economic data and weaker Q2 2022 GDP growth data, and several cited expectations of continued tighter monetary policy. Among dealers with lower inflation expectations, several cited incoming data, lower energy prices, or continued monetary policy tightening. Several dealers that revised up their unemployment rate expectations noted reduced growth expectations, incoming data, or tighter monetary policy as an underlying factor.

Updated as of September 28, 2022

Following the September FOMC meeting (Sep. 20-21), respondents were asked to update their responses to parts of questions 2 and 7. Of the 25 respondents to the September Survey of Primary Dealers, 25 updated their responses.

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 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. 1-2	Dec. 13-14	Jan. 31 - Feb. 1	Mar. 21-22	May 2-3	Jun. 13-14
25th Pctl	3.88%	4.38%	4.38%	4.63%	4.63%	4.63%
Median	3.88%	4.38%	4.63%	4.63%	4.63%	4.63%
75th Pctl	3.88%	4.38%	4.63%	4.88%	4.88%	4.88%
# of Responses	25	25	25	25	25	25

	2023 Q3	2023 Q4	2024 Q1	2024 Q2	2024 Q3	2024 Q4
25th Pctl	4.38%	4.38%	3.88%	3.25%	2.69%	2.63%
Median	4.63%	4.63%	4.13%	3.75%	3.50%	3.13%
75th Pctl	4.88%	4.63%	4.56%	4.31%	4.06%	3.81%
# of Responses	25	25	22	22	22	22

	2025 Q1	2025 Q2	2025 Q3	2025 Q4
25th Pctl	2.63%	2.63%	2.50%	2.38%
Median	2.88%	2.88%	2.63%	2.63%
75th Pctl	3.63%	3.25%	3.13%	3.00%
# of Responses	19	19	19	19

	2026	2027	2028	2029
25th Pctl	2.13%	2.13%	2.13%	2.16%
Median	2.38%	2.38%	2.38%	2.38%
75th Pctl	2.63%	2.63%	2.63%	2.63%
# of Responses	18	18	18	18

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	2.25%	2.50%
Median	2.40%	2.71%
75th Pctl	2.50%	3.00%

2c) Please indicate the percent chance that you attach to the target federal funds rate or range falling in each of the following ranges immediately following the November FOMC meeting and at the end of 2022, 2023, 2024, and 2025. If you expect a target range, please use the midpoint of that range in providing your response. (19 responses)

Federal Funds Rate or Range after the November 2022 FOMC Meeting										
<= 2.50%	2.51 - 2.75%	2.76 - 3.00%	3.01 - 3.25%	3.26 - 3.50%	3.51 - 3.75%	3.76 - 4.00%	4.01 - 4.25%	4.26 - 4.50%	>= 4.51%	
Average	0%	0%	0%	1%	4%	25%	59%	9%	1%	0%

Federal Funds Rate or Range at the End of 2022										
<= 3.25%	3.26 - 3.50%	3.51 - 3.75%	3.76 - 4.00%	4.01 - 4.25%	4.26 - 4.50%	4.51 - 4.75%	4.76 - 5.00%	5.01 - 5.25%	>= 5.26%	
Average	2%	1%	3%	6%	17%	43%	22%	5%	2%	1%

Federal Funds Rate or Range at the End of 2023										
<= 3.50%	3.51 - 3.75%	3.76 - 4.00%	4.01 - 4.25%	4.26 - 4.50%	4.51 - 4.75%	4.76 - 5.00%	5.01 - 5.25%	5.26 - 5.50%	>= 5.51%	
Average	9%	5%	7%	12%	15%	19%	15%	10%	4%	4%

Federal Funds Rate or Range at the End of 2024										
<= 2.75%	2.76 - 3.00%	3.01 - 3.25%	3.26 - 3.50%	3.51 - 3.75%	3.76 - 4.00%	4.01 - 4.25%	4.26 - 4.50%	4.51 - 4.75%	>= 4.76%	
Average	31%	14%	11%	10%	7%	6%	5%	4%	4%	8%

Federal Funds Rate or Range at the End of 2025										
<= 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 - 3.75%	3.76 - 4.00%	>= 4.01%	
Average	18%	11%	14%	15%	12%	9%	6%	4%	4%	7%

2f) Please indicate the percent chance that you attach to the highest level of the target range for the federal funds rate before the target range is next decreased falling in each of the following ranges.

	<= 3.50%	3.51 - 3.75%	3.76 - 4.00%	4.01 - 4.25%	4.26 - 4.50%	4.51 - 4.75%	4.76 - 5.00%	5.01 - 5.25%	5.26 - 5.50%	>= 5.51%
Average	2%	2%	3%	8%	15%	21%	18%	14%	9%	8%

7a) Provide your estimate of the most likely outcome for output, inflation, and unemployment.
(18 responses)

		2022	2023	2024	2025	Longer Run
Real GDP (Q4/Q4 Growth)	25th Pctl	-0.30%	-0.40%	1.20%	1.80%	1.80%
	Median	0.00%	0.40%	1.65%	2.00%	1.80%
	75th Pctl	0.40%	0.80%	2.00%	2.18%	2.00%
Core PCE Inflation (Q4/Q4)	25th Pctl	4.40%	2.80%	2.05%	2.00%	-
	Median	4.60%	3.00%	2.25%	2.00%	-
	75th Pctl	4.70%	3.30%	2.40%	2.20%	-
Headline PCE Inflation (Q4/Q4)	25th Pctl	5.10%	2.60%	2.00%	2.00%	2.00%
	Median	5.30%	2.90%	2.23%	2.00%	2.00%
	75th Pctl	5.60%	3.20%	2.48%	2.29%	2.00%
Unemployment Rate (Q4 Average Level)	25th Pctl	3.60%	4.00%	4.25%	4.05%	4.00%
	Median	3.70%	4.70%	4.95%	4.45%	4.00%
	75th Pctl	3.80%	5.00%	5.00%	4.98%	4.30%