RESPONSES TO SURVEY OF MARKET PARTICIPANTS

Markets Group, Federal Reserve Bank of New York



SEPTEMBER 2022

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

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 participants, along with the 25th and 75th percentiles, are reported. For questions that ask respondents to give a probability distribution, the average response across participants for each potential outcome is reported. Brief summaries of the comments received in free response form are also provided.

Responses were received from 29 market participants. Except where noted, all 29 participants responded to each question. In some cases, participants 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.

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^{*}Participants were asked to update their responses to this question following the September 2022 FOMC Meeting. Updated responses can be found starting on page 13.

1a) Provide below your expectations for <u>changes</u>, 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 respondents indicated they expected little or no change. Several respondents indicated they expected a mention of moderation in overall price increases or energy prices, and several expected continued reference to elevated inflation. Several respondents expected the statement to cite the strong labor market.

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

Many respondents indicated they expected little or no change. Several respondents indicated they expected continued reference to ongoing rate increases being appropriate, or some indication of further rate tightening. Several respondents indicated they expected mention of the FOMC's commitment to returning inflation to its 2 percent objective or an indication that a restrictive policy stance will be needed to bring inflation back to target.

Communication on tools other than the target federal funds rate:

Most respondents indicated they expected little or no change.

Other:

(24 responses)

Respondents did not provide significant commentary in this section.

1b) 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? Please provide your responses out to three decimal places. (28 responses)

	Year-End 2022	Year-End 2023	Year-End 2024	Year-End 2025	Longer Run
25th Pctl	3.75%	3.88%	3.38%	2.59%	2.50%
Median	3.88%	4.00%	3.38%	2.79%	2.50%
75th Pctl	3.88%	4.13%	3.63%	3.03%	2.50%

1c) What are your expectations for the Chair's press conference?

Many respondents 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 reference the strong labor market.

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

Several respondents indicated they expected the Chair to note that the pace of tightening is expected to slow going forward. Several expected the Chair to mention that policy is data-dependent or that it is not on a pre-set course.

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.	Nov.	Dec.	Jan. 31 -	Mar.	May	Jun.
	20-21	1-2	13-14	Feb. 1	21-22	2-3	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	29	29	29	29	29	29	29

	2023 Q3	2023 Q4	2024 Q1	2024 Q2	2024 Q3	2024 Q4
25th Pctl	3.63%	3.38%	3.13%	2.63%	2.38%	2.13%
Median	3.88%	3.88%	3.38%	3.13%	2.88%	2.63%
75th Pctl	4.13%	4.13%	3.88%	3.44%	3.38%	3.38%
# of Responses	29	29	28	28	28	28

	2025 Q1	2025 Q2	2025 Q3	2025 Q4
25th Pctl	2.13%	2.13%	2.13%	2.13%
Median	2.63%	2.63%	2.38%	2.38%
75th Pctl	3.13%	2.88%	2.75%	2.75%
# of Responses	27	27	27	27

	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%	2.63%	2.63%
# of Responses	26	26	26	26

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.

(28 responses)

	Longer Run	10-yr Average FF Rate
25th Pctl	2.13%	2.04%
Median	2.38%	2.39%
75th Pctl	2.50%	2.78%

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.

(28 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%	2%	23%	70%	4%	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%	7%	24%	47%	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	0%	0%	1%	3%	9%	24%	42%	16%	4%	1%	

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	8%	3%	9%	7%	12%	13%	17%	13%	8%	9%	

	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	17%	5%	10%	10%	10%	11%	10%	12%	6%	10%		

	Federal Funds Rate or Range at the End of 2025 <= 1.75%											
	<= 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	19%	6%	13%	15%	11%	10%	8%	6%	4%	8%		

2d) What is your estimate of the target federal funds rate or range at the effective lower bound? (27 responses)

	Level of Target Federal Funds Rate or Range at ELB
25th Pctl	-0.50%
Median	0.00%
75th Pctl	0.09%

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

(27 responses)

Several respondents 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 respondents attributed changes in their policy expectations to more persistent elevated inflation, and several cited the tight labor market.

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

(28 responses)

	<= 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%	4%	6%	11%	29%	20%	15%	13%

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.

(28 responses)

Some respondents saw 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 respondents expected wage inflation specifically to be lower than current levels or trending lower. Several respondents expected the unemployment rate to be similar to or slightly higher than current levels, while several other respondents expected the unemployment rate to be 4.0 percent or above. Some respondents expected the unemployment rate to be trending higher, and several expected some sign of a softening labor market.

3a) Please provide your modal expectation for the <u>total net change in SOMA holdings</u> 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.

(22 responses)

	Net Change in U.S. Treasury Securities (\$ billions)											
	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.						
	2022	2022	2022	2023	2023	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	-180					
Median	-180	-180	-180	-180	-180	-180	-135					
75th Pctl	-180	-180	-180	-180	-180	0	0					

Net Change in U.S. Treasury Securities (\$ billions)									
	2025 Q1	2025 Q2	2025 Q3	2025 Q4					
25th Pctl	-180	-180	-180	-180					
Median	-113	-45	0	0					
75th Pctl	0	0	0	0					

	Net Change in Agency MBS (\$ billions)											
	Oct. 2022	Nov. 2022	Dec. 2022	Jan. 2023	Feb. 2023	Mar. 2023						
25th Pctl	-35	-35	-35	-35	-35	-35						
Median	-25	-24	-25	-25	-25	-25						
75th Pctl	-20	-20	-20	-20	-19	-19						

	Net Change in Agency MBS (\$ billions)											
	2023 Q2	2023 Q3	2023 Q4	2024 Q1	2024 Q2	2024 Q3	2024 Q4					
25th Pctl	-105	-105	-105	-105	-105	-105	-105					
Median	-80	-80	-80	-103	-90	-65	-60					
75th Pctl	-60	-60	-60	-60	-60	0	0					

Net Ch	Net Change in Agency MBS (\$ billions)										
	2025 Q1	2025 Q2	2025 Q3	2025 Q4							
25th Pctl	-105	-105	-98	-98							
Median	-60	-59	-18	-18							
75th Pctl	0	0	0	0							

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.

(20 responses)

	Period in which SOMA Portfolio Ceases to	Size of SOMA Portfolio when it Ceases to		Take-up at the overnight reverse repurchase
	Decline*:	Decline**:	Size of reserves***:	facility****:
25th Pctl	Q3 2024	5250	1875	313
Median	Q3 2025	6250	2125	625
75th Pctl	Q1 2026	6500	2375	1375

*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.

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.

(23 responses)

	\$4000bn	\$4001-	\$4501-	\$5001-	\$5501-	\$6001-	\$6501-	\$7001-	\$7501bn
	or smaller	4500bn	5000bn	5500bn	6000bn	6500bn	7000bn	7500bn	or larger
Average	8%	9%	11%	10%	12%	20%	16%	10%	5%

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.
(18 responses)

Many respondents indicated they expected little or no change versus the prior survey or did not provide significant commentary. Several respondents 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.

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).

(26 responses)

	Probability Distribution of U.S. Real GDP Growth in 2022 (Q4/Q4)											
	<= -1.01%	-1.00 - -0.51%			0.51 - 1.00%					>= 3.01%		
Average	6%	7%	14%	20%	19%	13%	13%	5%	2%	2%		

Probability Distribution of U.S. Real GDP Growth in 2023 (Q4/Q4)											
		-1.00 - -0.51%							2.51 - 3.00%	>= 3.01%	
Average	6%	6%	12%	20%	15%	15%	12%	7%	3%	3%	

Probability Distribution of U.S. Real GDP Growth in 2024 (Q4/Q4)											
	<= -1.01%	-1.00 - -0.51%		0.01 - 0.50%	0.51 - 1.00%		1.51 - 2.00%	2.01 - 2.50%	2.51 - 3.00%	>= 3.01%	
Average	6%	4%	5%	7%	12%	22%	19%	14%	6%	5%	

	Probability Distribution of U.S. Real GDP Growth in 2025 (Q4/Q4)												
				0.01 - 0.50%						>= 3.01%			
Average	4%	4%	4%	6%	8%	18%	25%	16%	9%	6%			

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

(26 responses)

U.S	. Real GDP M	lodal Point E	stimates (Q4	/Q4)
	2022	2023	2024	2025
25th Pctl	0.13%	0.50%	1.40%	1.60%
Median	0.50%	0.88%	1.70%	1.85%
75th Pctl	1.20%	1.58%	1.90%	2.00%

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

(26 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%	6%	11%	19%	22%	16%	15%	4%	3%		

	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	3%	3%	5%	9%	15%	14%	16%	13%	10%	11%		

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	6%	6%	11%	23%	15%	14%	8%	5%	4%	7%	

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%	8%	20%	20%	17%	11%	7%	4%	3%	4%	

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

(26 responses)

Headlin	e PCE Inflatio	on Modal Poi	nt Estimates	(Q4/Q4)
	2022	2023	2024	2025
25th Pctl	4.75%	2.50%	2.12%	2.00%
Median	5.25%	2.70%	2.25%	2.10%
75th Pctl	5.83%	3.05%	2.47%	2.24%

5b) For the outcomes below, provide the percent chance you attach to the annual average <u>CPI inflation</u> 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.

(25 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%	1%	5%	15%	23%	27%	18%	10%

	Most Likely Outcome
25th Pctl	2.45%
Median	2.50%
75th Pctl	3.00%

5c) For the outcomes below, provide the percent chance you attach to the annual average <u>CPI inflation</u> 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.

(26 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%	3%	10%	26%	32%	18%	7%	3%

	Most Likely Outcome
25th Pctl	2.20%
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? (28 responses)

	Currently in U.S. Recession		U.S. Recession in 6 Months		Global Recession in 6 Months
25th Pctl	5%	25th Pctl	25%	25th Pctl	30%
Median	9%	Median	30%	Median	38%
75th Pctl	20%	75th Pctl	50%	75th Pctl	50%

^{*}NBER-defined recession

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

(28 responses)

	2022**	H1 2023	H2 2023	H1 2024	H2 2024	No recession by end 2024
Average	22%	25%	20%	12%	7%	13%

^{*}NBER-defined recession

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

(25 responses)

In explaining changes to their recession probabilities, among respondents citing reasons for a higher probability of recession, several cited the tightening of monetary policy or financial conditions. Several respondents 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. Among respondents citing reasons for lower probability of recession, several noted that recent data indicated an improved outlook, and several noted that recent activity or labor market data indicated that the economy had proven stronger or more resilient than previously thought.

^{**}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.

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

Updated as of September 28, 2022

Following the September FOMC meeting (Sep. 20-21), respondents were asked to update their responses to parts of question 2. Of the 29 respondents to the September Survey of Market Participants, 29 updated their responses.

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%	4.13%	4.38%	4.38%	4.38%	4.38%
Median	3.88%	4.38%	4.63%	4.63%	4.63%	4.63%
75th Pctl	3.88%	4.38%	4.63%	4.63%	4.63%	4.63%
# of Responses	29	29	29	29	29	29

	2023 Q3	2023 Q4	2024 Q1	2024 Q2	2024 Q3	2024 Q4
25th Pctl	4.38%	4.13%	3.38%	2.88%	2.63%	2.38%
Median	4.63%	4.38%	4.00%	3.63%	3.25%	2.88%
75th Pctl	4.63%	4.63%	4.38%	4.13%	3.88%	3.88%
# of Responses	29	29	28	28	28	28

	2025 Q1	2025 Q2	2025 Q3	2025 Q4
25th Pctl	2.13%	2.00%	2.13%	2.13%
Median	2.63%	2.63%	2.63%	2.63%
75th Pctl	3.38%	3.25%	3.13%	3.00%
# of Responses	27	27	27	27

	2026	2027	2028	2029
25th Pctl	2.13%	2.03%	2.13%	2.13%
Median	2.38%	2.38%	2.38%	2.38%
75th Pctl	2.63%	2.63%	2.63%	2.63%
# of Responses	26	26	26	26

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.

(28 responses)

Longer Run	10-yr Average FF Rate
2.09%	2.19%
2.38%	2.50%
2.50%	2.88%
	2.09%

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. (28 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%	1%	3%	6%	28%	51%	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	3%	2%	3%	8%	28%	38%	15%	3%	1%	0%

	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	19%	7%	7%	13%	14%	14%	11%	6%	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	37%	7%	10%	7%	7%	11%	6%	4%	3%	4%

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	24%	13%	12%	11%	10%	7%	7%	5%	3%	5%	

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

					4.26 - 4.50%					
Average	3%	3%	4%	9%	17%	29%	16%	9%	6%	5%