

# RESPONSES TO SURVEY OF PRIMARY DEALERS

Markets Group, Federal Reserve Bank of New York



## JUNE 2021

Distributed: 6/2/2021 – Received by: 6/7/2021

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.<sup>1</sup> Brief summaries of the comments received in free response form are also provided.

Responses were received from 24 primary dealers. Except where noted, all 24 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.

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<sup>1</sup> Answers may not sum to 100 percent due to rounding.

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

Current economic conditions:

**Some dealers indicated that they did not expect material changes to the Committee’s characterization of current economic conditions, while several indicated that they expected the Committee to note a further increase in realized inflation.**

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

**Most dealers indicated that they did not expect material changes to statement language on the economic outlook or communication on the expected path of the federal funds rate.**

Communication on tools other than the target federal funds rate:

**Most dealers indicated that they did not expect material changes to statement language on tools other than the target federal funds rate.**

Other:  
(13 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

|           | Year-End<br>2021 | Year-End<br>2022 | Year-End<br>2023 | Longer<br>Run |
|-----------|------------------|------------------|------------------|---------------|
| 25th Pctl | <b>0.13%</b>     | <b>0.13%</b>     | <b>0.13%</b>     | <b>2.50%</b>  |
| Median    | <b>0.13%</b>     | <b>0.13%</b>     | <b>0.25%</b>     | <b>2.50%</b>  |
| 75th Pctl | <b>0.13%</b>     | <b>0.13%</b>     | <b>0.38%</b>     | <b>2.50%</b>  |

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

**Many dealers indicated that they expected the Chair to comment on future or current discussions about tapering asset purchases, and some indicated that they expected him to note that “substantial further progress” toward the Committee’s goals has not yet been achieved or will take some time. Several dealers indicated that they expected the Chair to note that despite an improvement in economic conditions, the economy remains far from the Committee’s goals, with several indicating that they expected the Chair to highlight the degree of recent labor market gains in particular. In addition, some dealers indicated that they expected the Chair to continue to characterize recent increases in inflation as largely reflecting transitory factors, and several indicated that they expected him to characterize the economic outlook as having improved.**

**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.

|                | Jun.<br>15-16 | Jul.<br>27-28 | Sep.<br>21-22 | Nov.<br>2-3  | Dec.<br>14-15 | Jan.<br>25-26 |
|----------------|---------------|---------------|---------------|--------------|---------------|---------------|
| 25th Pctl      | <b>0.13%</b>  | <b>0.13%</b>  | <b>0.13%</b>  | <b>0.13%</b> | <b>0.13%</b>  | <b>0.13%</b>  |
| Median         | <b>0.13%</b>  | <b>0.13%</b>  | <b>0.13%</b>  | <b>0.13%</b> | <b>0.13%</b>  | <b>0.13%</b>  |
| 75th Pctl      | <b>0.13%</b>  | <b>0.13%</b>  | <b>0.13%</b>  | <b>0.13%</b> | <b>0.13%</b>  | <b>0.13%</b>  |
| # of Responses | <b>24</b>     | <b>24</b>     | <b>24</b>     | <b>24</b>    | <b>24</b>     | <b>24</b>     |

|                | 2022 Q1      | 2022 Q2      | 2022 Q3      | 2022 Q4      | 2023 Q1      | 2023 Q2      | 2023 Q3      | 2023 Q4      |
|----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| 25th Pctl      | <b>0.13%</b> | <b>0.13%</b> | <b>0.13%</b> | <b>0.13%</b> | <b>0.13%</b> | <b>0.13%</b> | <b>0.13%</b> | <b>0.38%</b> |
| Median         | <b>0.13%</b> | <b>0.13%</b> | <b>0.13%</b> | <b>0.13%</b> | <b>0.13%</b> | <b>0.13%</b> | <b>0.38%</b> | <b>0.38%</b> |
| 75th Pctl      | <b>0.13%</b> | <b>0.13%</b> | <b>0.13%</b> | <b>0.13%</b> | <b>0.38%</b> | <b>0.38%</b> | <b>0.63%</b> | <b>0.63%</b> |
| # of Responses | <b>24</b>    | <b>24</b>    | <b>24</b>    | <b>24</b>    | <b>21</b>    | <b>21</b>    | <b>21</b>    | <b>21</b>    |

|                | 2024         | 2025         | 2026         | 2027         |
|----------------|--------------|--------------|--------------|--------------|
| 25th Pctl      | <b>0.88%</b> | <b>1.38%</b> | <b>1.88%</b> | <b>2.13%</b> |
| Median         | <b>1.25%</b> | <b>2.00%</b> | <b>2.13%</b> | <b>2.38%</b> |
| 75th Pctl      | <b>1.63%</b> | <b>2.38%</b> | <b>2.63%</b> | <b>2.63%</b> |
| # of Responses | <b>19</b>    | <b>19</b>    | <b>19</b>    | <b>19</b>    |

If your responses **through year-end 2023** above do not reflect an increase from the current target range at any point, please provide the earliest quarter in which your modal expectation for the level of the target range is higher than the current level.

|                | Earliest quarter* |
|----------------|-------------------|
| 25th Pctl      | <b>Q1 2024</b>    |
| Median         | <b>Q1 2024</b>    |
| 75th Pctl      | <b>Q2 2024</b>    |
| # of Responses | <b>6</b>          |

\* Dropdown selections: 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 or later.

\*\* Statistic falls between two selections.

**2b)** Provide your estimate for the most likely value for the following indicators at the time of the next increase in the target range for the federal funds rate.  
(22 responses)

| Most Likely Value of Economic Indicator at Time of First Increase in Target Range |                       |                                    |   |                                     |
|---|-----------------------|------------------------------------|---|-------------------------------------|
|   | Unemployment rate (%) | Labor force participation rate (%) | Total change in the level of real GDP since 2019 Q4 (%) | Headline 12-month PCE inflation (%) |
| 25th Pctl   | <b>3.4%</b>           | <b>62.6%</b>                       | <b>8.0%</b>   | <b>2.2%</b>                         |
| Median  | <b>3.7%</b>           | <b>63.0%</b>                       | <b>8.4%</b>   | <b>2.3%</b>                         |
| 75th Pctl   | <b>4.0%</b>           | <b>63.2%</b>                       | <b>10.5%</b>  | <b>2.5%</b>                         |

**2c)** 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<br>FF Rate |
|-----------|--------------|--------------------------|
| 25th Pctl | <b>2.06%</b> | <b>1.25%</b>             |
| Median    | <b>2.31%</b> | <b>1.63%</b>             |
| 75th Pctl | <b>2.50%</b> | <b>1.85%</b>             |

**2d)** 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 2021, 2022, and 2023. If you expect a target range, please use the midpoint of that range in providing your response.

(22 responses)

| Federal Funds Rate or Range at the End of 2021 |           |                 |                 |                 |                 |                 |                 |                 |                 |           |
|--|-----------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------|
|  | < 0.00%   | 0.00 -<br>0.25% | 0.26 -<br>0.50% | 0.51 -<br>0.75% | 0.76 -<br>1.00% | 1.01 -<br>1.25% | 1.26 -<br>1.50% | 1.51 -<br>1.75% | 1.76 -<br>2.00% | ≥ 2.01%   |
| Average  | <b>1%</b> | <b>93%</b>      | <b>5%</b>       | <b>1%</b>       | <b>0%</b>       | <b>0%</b>       | <b>0%</b>       | <b>0%</b>       | <b>0%</b>       | <b>0%</b> |

| Federal Funds Rate or Range at the End of 2022 |           |                 |                 |                 |                 |                 |                 |                 |                 |           |
|--|-----------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------|
|  | < 0.00%   | 0.00 -<br>0.25% | 0.26 -<br>0.50% | 0.51 -<br>0.75% | 0.76 -<br>1.00% | 1.01 -<br>1.25% | 1.26 -<br>1.50% | 1.51 -<br>1.75% | 1.76 -<br>2.00% | ≥ 2.01%   |
| Average  | <b>1%</b> | <b>64%</b>      | <b>21%</b>      | <b>9%</b>       | <b>4%</b>       | <b>1%</b>       | <b>1%</b>       | <b>0%</b>       | <b>0%</b>       | <b>0%</b> |

| Federal Funds Rate or Range at the End of 2023 |           |                 |                 |                 |                 |                 |                 |                 |                 |           |
|--|-----------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------|
|  | < 0.00%   | 0.00 -<br>0.25% | 0.26 -<br>0.50% | 0.51 -<br>0.75% | 0.76 -<br>1.00% | 1.01 -<br>1.25% | 1.26 -<br>1.50% | 1.51 -<br>1.75% | 1.76 -<br>2.00% | ≥ 2.01%   |
| Average  | <b>1%</b> | <b>27%</b>      | <b>27%</b>      | <b>17%</b>      | <b>10%</b>      | <b>7%</b>       | <b>5%</b>       | <b>3%</b>       | <b>2%</b>       | <b>1%</b> |

**2e)** What is your estimate of the target federal funds rate or range at the effective lower bound?

|           | Level of Target Federal<br>Funds Rate or Range<br>at ELB |
|-----------|--|
| 25th Pctl | <b>0.00%</b>   |
| Median    | <b>0.10%</b>   |
| 75th Pctl | <b>0.13%</b>   |

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

(20 responses)

**Several dealers indicated that they did not make any material changes to their policy rate expectations. However, several other dealers, in explaining changes to their expectations, cited a perceived increase in upside risk to inflation, and several indicated**

that they now expected, or assigned a higher probability to, an earlier increase in the target range.

- 3a) Please provide your modal expectation for the amount of purchases, net of reinvestments, of U.S. Treasury securities and agency mortgage-backed securities (MBS) the Desk will conduct for each month listed below and the total over each of the quarters below. If you expect any of these amounts to be zero in a given period, please enter 0.

| Net purchases of U.S. Treasury securities (\$ billions) |           |           |           |           |           |           |           |
|---|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|   | Jun. 2021 | Jul. 2021 | Aug. 2021 | Sep. 2021 | Oct. 2021 | Nov. 2021 | Dec. 2021 |
| 25th Pctl   | 80        | 80        | 80        | 80        | 80        | 80        | 80        |
| Median  | 80        | 80        | 80        | 80        | 80        | 80        | 80        |
| 75th Pctl   | 80        | 80        | 80        | 80        | 80        | 80        | 80        |

|           | 2022 Q1 | 2022 Q2 | 2022 Q3 | 2022 Q4 | 2023 Q1 | 2023 Q2 | 2023 Q3 | 2023 Q4 |
|-----------|---------|---------|---------|---------|---------|---------|---------|---------|
| 25th Pctl | 180     | 120     | 45      | 0       | 0       | 0       | 0       | 0       |
| Median    | 200     | 135     | 70      | 22      | 0       | 0       | 0       | 0       |
| 75th Pctl | 225     | 175     | 120     | 65      | 5       | 0       | 0       | 0       |

| Net purchases of agency MBS (\$ billions) |           |           |           |           |           |           |           |
|---|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|   | Jun. 2021 | Jul. 2021 | Aug. 2021 | Sep. 2021 | Oct. 2021 | Nov. 2021 | Dec. 2021 |
| 25th Pctl                                 | 40        | 40        | 40        | 40        | 40        | 40        | 40        |
| Median                                    | 40        | 40        | 40        | 40        | 40        | 40        | 40        |
| 75th Pctl                                 | 40        | 40        | 40        | 40        | 40        | 40        | 40        |

|           | 2022 Q1 | 2022 Q2 | 2022 Q3 | 2022 Q4 | 2023 Q1 | 2023 Q2 | 2023 Q3 | 2023 Q4 |
|-----------|---------|---------|---------|---------|---------|---------|---------|---------|
| 25th Pctl | 85      | 53      | 7       | 0       | 0       | 0       | 0       | 0       |
| Median    | 95      | 63      | 35      | 5       | 0       | 0       | 0       | 0       |
| 75th Pctl | 110     | 82      | 53      | 20      | 0       | 0       | 0       | 0       |

If your responses above do not reflect a period in which the combined pace of net purchases of Treasury securities and agency mortgage-backed securities (MBS) falls to zero, please provide the earliest quarter in which your modal expectation for the combined pace of net purchases of these securities falls to zero.

**Responses were limited to two respondents.\***

\* Dropdown selections: 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 or later.

In addition, please also provide your modal expectation for the earliest quarter in which the SOMA portfolio declines.

|                | Earliest quarter* |
|----------------|-------------------|
| 25th Pctl      | <b>Q1 2025</b>    |
| Median         | <b>Q3 2025</b>    |
| 75th Pctl      | <b>Q1 2026</b>    |
| # of Responses | <b>21</b>         |

\* Dropdown selections: Q2 2021, Q3 2021, Q4 2021, Q1 2022, Q2 2022, Q3 2022, 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 or later.

**3b)** If applicable, please describe your expectations for communications regarding asset purchases going forward, including the timing and form of such communications (if any).

**Many dealers indicated that they expected the Committee’s assessment of the conditions for tapering asset purchases and/or plans for such a tapering to be communicated gradually, and many provided expectations for the timing of this communication that fell between June and September. In particular, several dealers indicated that they expected some communication at the June FOMC meeting, and several indicated that they expected some communication at the July FOMC meeting. In addition, several dealers indicated a timing for an announcement regarding the tapering of asset purchases that fell in the fourth quarter of 2021, and several indicated that they expected the tapering of asset purchases to begin in the first quarter of 2022.**

**3c)** Please indicate the percent chance that you attach to the first reduction in the pace of asset purchases occurring in each of the following periods.

|         | 2021<br>Q2 | 2021<br>Q3 | 2021<br>Q4 | 2022<br>Q1 | 2022<br>Q2 | 2022<br>Q3 | 2022<br>Q4 | 2023 Q1<br>or later |
|---------|------------|------------|------------|------------|------------|------------|------------|---------------------|
| Average | <b>0%</b>  | <b>5%</b>  | <b>28%</b> | <b>39%</b> | <b>14%</b> | <b>5%</b>  | <b>6%</b>  | <b>3%</b>           |

**3d)** The April 2021 FOMC statement noted that "the Federal Reserve will continue to increase its holdings of Treasury securities by at least \$80 billion per month and of agency mortgage-backed securities by at least \$40 billion per month until substantial further progress has been made toward the Committee’s maximum employment and price stability goals."

Please provide your views on the most likely economic and financial conditions prevailing at the time that the Committee judges “substantial further progress” has been made toward its goals. If your views have changed since the last policy survey, please describe the factors behind those changes.

**At the time that the Committee judges “substantial further progress” has been made toward its goals, some dealers indicated a level of inflation greater than 2 percent. In addition, several dealers indicated that they expected that there will have been a significant increase in the level of employment, several indicated an unemployment rate below 5 percent, and several indicated that they expected that there will have been inclusive improvement in the labor market. Finally, several dealers indicated that they expected financial conditions to**

be accommodative, and several indicated that they expected the level of GDP to exceed its level or trend prior to the onset of the COVID-19 pandemic.

- 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 2021 and 2022.

| Year-end 2021 |         |              |              |              |              |              |              |         |
|---------------|---------|--------------|--------------|--------------|--------------|--------------|--------------|---------|
|               | < 0.00% | 0.00 - 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       | 0%      | 1%           | 4%           | 18%          | 40%          | 28%          | 6%           | 3%      |

| Year-end 2022 |         |              |              |              |              |              |              |         |
|---------------|---------|--------------|--------------|--------------|--------------|--------------|--------------|---------|
|               | < 0.00% | 0.00 - 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       | 0%      | 1%           | 3%           | 11%          | 24%          | 34%          | 21%          | 7%      |

- 5) The table below lists the average spreads of selected money market rates\* over the past week. Please provide your expectation for each of these rate spreads for the day after each of the FOMC meetings. Please ensure your signs are correct.

|                | Top of target range** minus IOER (in bps) |            |            |
|----------------|---|------------|------------|
|                | Jun. 15-16                                | Jul. 27-28 | Sep. 21-22 |
| 25th Pctl      | 10.0                                      | 10.0       | 10.0       |
| Median         | 15.0                                      | 10.0       | 10.0       |
| 75th Pctl      | 15.0                                      | 15.0       | 11.0       |
| # of Responses | 24  | 24         | 24         |

|                | EFFR minus IOER (in bps) |            |            |
|----------------|--------------------------|------------|------------|
|                | Jun. 15-16               | Jul. 27-28 | Sep. 21-22 |
| 25th Pctl      | -4.0                     | -5.0       | -5.0       |
| Median         | -4.0                     | -5.0       | -5.0       |
| 75th Pctl      | -4.0                     | -4.0       | -4.0       |
| # of Responses | 24                       | 24         | 24         |



|                | SOFR minus IOER (in bps) |               |               |
|----------------|--------------------------|---------------|---------------|
|                | Jun.<br>15-16            | Jul.<br>27-28 | Sep.<br>21-22 |
| 25th Pctl      | <b>-9.0</b>              | <b>-10.0</b>  | <b>-10.0</b>  |
| Median         | <b>-9.0</b>              | <b>-9.0</b>   | <b>-9.0</b>   |
| 75th Pctl      | <b>-9.0</b>              | <b>-9.0</b>   | <b>-8.0</b>   |
| # of Responses | <b>24</b>                | <b>24</b>     | <b>24</b>     |

|                | Bottom of target range** minus ON RRP rate (in bps) |               |               |
|----------------|---|---------------|---------------|
|                | Jun.<br>15-16                                       | Jul.<br>27-28 | Sep.<br>21-22 |
| 25th Pctl      | <b>-4.0</b>   | <b>-5.0</b>   | <b>-5.0</b>   |
| Median         | <b>0.0</b>  | <b>-3.0</b>   | <b>-4.0</b>   |
| 75th Pctl      | <b>0.0</b>  | <b>0.0</b>    | <b>0.0</b>    |
| # of Responses | <b>24</b>   | <b>24</b>     | <b>24</b>     |

|                | 3-Month U.S. Treasury bill yield minus 3-Month OIS (in bps) |               |               |
|----------------|---|---------------|---------------|
|                | Jun.<br>15-16   | Jul.<br>27-28 | Sep.<br>21-22 |
| 25th Pctl      | <b>-7.5</b>   | <b>-8.0</b>   | <b>-8.0</b>   |
| Median         | <b>-7.0</b>   | <b>-7.0</b>   | <b>-7.0</b>   |
| 75th Pctl      | <b>-7.0</b>   | <b>-6.0</b>   | <b>-6.0</b>   |
| # of Responses | <b>24</b>   | <b>24</b>     | <b>24</b>     |

\* Listed rates include the interest on excess reserves (IOER) rate, effective federal funds rate (EFFR), Secured Overnight Financing Rate (SOFR), overnight reverse repurchase (ON RRP) rate, and 3-month overnight index swap rate (3m OIS).

\*\* Target range for the federal funds rate.

- 6) What percent chance do you attach to any additional U.S. federal fiscal policy measures being signed into law over the remainder of 2021?

| Probability of Additional U.S. Federal Fiscal Policy Measures |             |
|---|-------------|
|   | Probability |
| 25th Pctl   | <b>60%</b>  |
| Median  | <b>73%</b>  |
| 75th Pctl   | <b>80%</b>  |

If you assigned a non-zero probability above, please provide your estimate of the most likely total amount of additional U.S. federal fiscal policy spending and revenue measures to be signed into law over the remainder of 2021, conditional on there being such additional measures.

(23 responses)

| Additional U.S. Federal Fiscal Policy Measures Estimates |  |   |
|--|--|---|
|  | Estimate of Most Likely Total Amount of Additional U.S. Federal Fiscal Policy <u>Spending</u> Measures (\$ billions) | Estimate of Most Likely Total Amount of Additional U.S. Federal Fiscal Policy <u>Revenue</u> Measures (\$ billions) |
| 25th Pctl  | <b>1600</b>  | <b>1000</b>   |
| Median   | <b>2125</b>  | <b>1100</b>   |
| 75th Pctl  | <b>3075</b>  | <b>1500</b>   |

Please describe any assumptions underlying your estimates above, including regarding the profile over time of expenditures and/or revenues arising from any enacted legislation.

**In explaining any assumptions underlying their estimates, some dealers indicated that they expected any additional fiscal spending over the remainder of 2021 to include infrastructure spending, and some indicated that they expected any additional fiscal spending measures to be carried out over a number of years. In addition, some dealers suggested that the passage of any additional spending would likely be financed at least in part through tax increases, with several mentioning higher corporate tax rates and several mentioning a higher top marginal income tax rate. Several dealers made reference to proposed legislation by the administration, and several indicated that they expected any additional spending to include social benefits. Several dealers indicated that they saw more uncertainty around the passage of additional measures, and several indicated that they viewed measures as most likely to be passed through the reconciliation process. Finally, several dealers indicated that they expected the total amount of additional spending to be roughly in line with proposals that had been made by the administration, while several indicated that they expected the amount to be lower.**

**7a)** Please indicate your modal projections for U.S. real GDP growth for each of the following quarters (seasonally adjusted annual rate).

| Modal Projection for U.S. Real GDP Growth (percent) |                   |                   |                   |
|---|-------------------|-------------------|-------------------|
|   | Q2 2021<br>(saar) | Q3 2021<br>(saar) | Q4 2021<br>(saar) |
| 25th Pctl   | <b>8.0%</b>       | <b>6.3%</b>       | <b>4.2%</b>       |
| Median  | <b>10.0%</b>      | <b>8.1%</b>       | <b>5.4%</b>       |
| 75th Pctl   | <b>10.8%</b>      | <b>9.0%</b>       | <b>6.4%</b>       |

**7b)** Please provide the percent chance you attach to the following outcomes for U.S. real GDP growth in 2021 and 2022 (Q4/Q4).

| Probability Distribution of U.S. Real GDP Growth in 2021 (Q4/Q4) |                 |                 |                 |                 |                  |            |           |
|--|-----------------|-----------------|-----------------|-----------------|------------------|------------|-----------|
| < 0%   | 0.00 -<br>2.00% | 2.01 -<br>4.00% | 4.01 -<br>6.00% | 6.01 -<br>8.00% | 8.01 -<br>10.00% | ≥ 10.01%   |           |
| Average  | <b>1%</b>       | <b>2%</b>       | <b>6%</b>       | <b>22%</b>      | <b>43%</b>       | <b>23%</b> | <b>3%</b> |

| Probability Distribution of U.S. Real GDP Growth in 2022 (Q4/Q4) |                 |                 |                 |                 |                 |            |           |
|--|-----------------|-----------------|-----------------|-----------------|-----------------|------------|-----------|
| < 0%   | 0.00 -<br>1.00% | 1.01 -<br>2.00% | 2.01 -<br>3.00% | 3.01 -<br>4.00% | 4.01 -<br>5.00% | ≥ 5.01%    |           |
| Average  | <b>3%</b>       | <b>7%</b>       | <b>18%</b>      | <b>27%</b>      | <b>28%</b>      | <b>12%</b> | <b>6%</b> |

**8a)** Please provide the percent chance you attach to the following outcomes for headline PCE inflation in 2022 and 2023 (Q4/Q4).  
(22 responses)

| Headline PCE Inflation 2022 (Q4/Q4) |                |                |                |                |                |                |                |                |           |           |
|-------------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|-----------|-----------|
| ≤ 1.00%                             | 1.01-<br>1.25% | 1.26-<br>1.50% | 1.51-<br>1.75% | 1.76-<br>2.00% | 2.01-<br>2.25% | 2.26-<br>2.50% | 2.51-<br>2.75% | 2.76-<br>3.00% | ≥ 3.01%   |           |
| Average                             | <b>2%</b>      | <b>2%</b>      | <b>5%</b>      | <b>8%</b>      | <b>19%</b>     | <b>25%</b>     | <b>20%</b>     | <b>9%</b>      | <b>6%</b> | <b>5%</b> |

| Headline PCE Inflation 2023 (Q4/Q4) |                |                |                |                |                |                |                |                |           |           |
|-------------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|-----------|-----------|
| ≤ 1.00%                             | 1.01-<br>1.25% | 1.26-<br>1.50% | 1.51-<br>1.75% | 1.76-<br>2.00% | 2.01-<br>2.25% | 2.26-<br>2.50% | 2.51-<br>2.75% | 2.76-<br>3.00% | ≥ 3.01%   |           |
| Average                             | <b>2%</b>      | <b>2%</b>      | <b>4%</b>      | <b>8%</b>      | <b>19%</b>     | <b>28%</b>     | <b>20%</b>     | <b>9%</b>      | <b>5%</b> | <b>3%</b> |

**8b)** For the outcomes below, provide the percent chance you attach to the annual average CPI inflation rate from June 1, 2021 – May 31, 2026 falling in each of the following ranges. Please also provide your point estimate for the most likely outcome.

|         | ≤ 1.00%   | 1.01 -<br>1.50% | 1.51 -<br>2.00% | 2.01 -<br>2.50% | 2.51 -<br>3.00% | ≥ 3.01%   |
|---------|-----------|-----------------|-----------------|-----------------|-----------------|-----------|
| Average | <b>3%</b> | <b>7%</b>       | <b>20%</b>      | <b>39%</b>      | <b>25%</b>      | <b>5%</b> |

|           | Most Likely Outcome |
|-----------|---------------------|
| 25th Pctl | <b>2.10%</b>        |
| Median    | <b>2.30%</b>        |
| 75th Pctl | <b>2.63%</b>        |

**8c)** For the outcomes below, provide the percent chance you attach to the annual average CPI inflation rate from June 1, 2026 – May 31, 2031 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 | <b>3%</b> | <b>10%</b>   | <b>25%</b>   | <b>40%</b>   | <b>17%</b>   | <b>5%</b> |

|           | Most Likely Outcome |
|-----------|---------------------|
| 25th Pctl | <b>2.20%</b>        |
| Median    | <b>2.20%</b>        |
| 75th Pctl | <b>2.40%</b>        |

**9a)** 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**?

|           | Currently in U.S. Recession | U.S. Recession in 6 Months | Global Recession in 6 Months |
|-----------|-----------------------------|----------------------------|------------------------------|
| 25th Pctl | <b>0%</b>                   | 25th Pctl <b>4%</b>        | 25th Pctl <b>6%</b>          |
| Median    | <b>2%</b>                   | Median <b>10%</b>          | Median <b>13%</b>            |
| 75th Pctl | <b>8%</b>                   | 75th Pctl <b>11%</b>       | 75th Pctl <b>15%</b>         |

*\*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.*

**9b)** Please explain the factors behind any change to your expectations in part a since the last policy survey. (20 responses)

**Most dealers indicated that there were no significant changes to their recession probabilities. In describing the factors behind any changes to their responses, several dealers cited improving economic data.**

**10a)** Provide your estimate of the most likely outcome for output, inflation, and unemployment.  
(15 responses)

|   |           | 2021         | 2022         | 2023         | Longer Run   |
|---|-----------|--------------|--------------|--------------|--------------|
| Real GDP<br>(Q4/Q4 Growth)              | 25th Pctl | <b>6.50%</b> | <b>2.60%</b> | <b>2.00%</b> | <b>1.75%</b> |
|   | Median    | <b>7.45%</b> | <b>2.95%</b> | <b>2.30%</b> | <b>2.00%</b> |
|   | 75th Pctl | <b>7.85%</b> | <b>3.50%</b> | <b>2.45%</b> | <b>2.10%</b> |
| Core PCE Inflation<br>(Q4/Q4)           | 25th Pctl | <b>2.70%</b> | <b>1.95%</b> | <b>2.00%</b> | -            |
|   | Median    | <b>3.00%</b> | <b>2.10%</b> | <b>2.15%</b> | -            |
|   | 75th Pctl | <b>3.25%</b> | <b>2.25%</b> | <b>2.30%</b> | -            |
| Headline PCE<br>Inflation (Q4/Q4)       | 25th Pctl | <b>3.00%</b> | <b>1.90%</b> | <b>2.00%</b> | <b>2.00%</b> |
|   | Median    | <b>3.35%</b> | <b>2.05%</b> | <b>2.15%</b> | <b>2.00%</b> |
|   | 75th Pctl | <b>3.60%</b> | <b>2.20%</b> | <b>2.30%</b> | <b>2.00%</b> |
| Unemployment Rate<br>(Q4 Average Level) | 25th Pctl | <b>4.30%</b> | <b>3.50%</b> | <b>3.35%</b> | <b>3.80%</b> |
|   | Median    | <b>4.65%</b> | <b>3.70%</b> | <b>3.62%</b> | <b>4.00%</b> |
|   | 75th Pctl | <b>4.80%</b> | <b>4.20%</b> | <b>3.85%</b> | <b>4.40%</b> |

**10b)** Please explain changes, if any, to your estimates in part a since the last policy survey.  
(23 responses)

**In describing the factors underlying changes to their estimates, most dealers cited recent economic data, several cited continued progress on the reopening of the economy, and several cited ongoing supply chain bottlenecks.**