Release Date: November 14, 2022

FOURTH QUARTER 2022

Forecasters Predict Lower Growth and Higher Unemployment Rate
The outlook for the U.S. economy looks weaker now than it did three months ago, according to 38 forecasters surveyed by the Federal Reserve Bank of Philadelphia. The forecasters predict the economy will expand at an annual rate of 1.0 percent this quarter, down from the prediction of 1.2 percent in the last survey. Over the next three quarters, the panelists also see slower output growth than they predicted three months ago. On an annual-average over annual-average basis, the forecasters expect real GDP to increase 0.7 percent in 2023 and 1.8 percent in 2024. These annual projections are lower than the estimates in the previous survey.

A higher path for the unemployment rate accompanies the outlook for growth. On an annual-average basis, the forecasters expect the unemployment rate will increase from 3.7 percent in 2022 to 4.2 percent in 2023 and remain little changed over the following two years. The projections for 2023, 2024, and 2025 are 0.3 to 0.4 percentage point above those projections from the last survey.
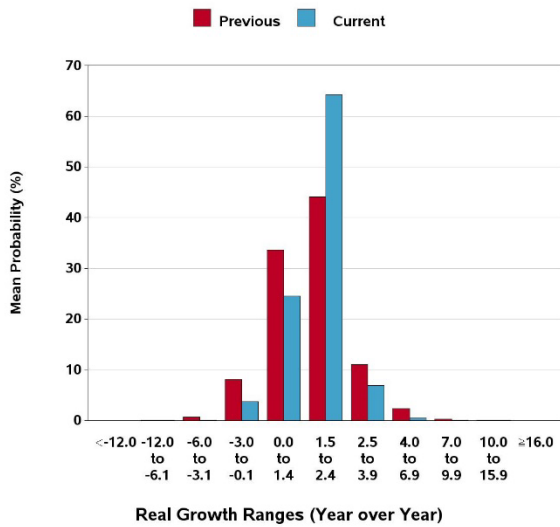
On the employment front, the forecasters raised their current-quarter estimate for job growth to a monthly rate of 217,600 but revised downward their estimates for the next three quarters. The projections for the annual-average level of nonfarm payroll employment put job gains at a monthly rate of 492,800 in 2022 and 143,600 in 2023. (These annual-average projections are computed as the year-to-year change in the annual-average level of nonfarm payroll employment, converted to a monthly rate.)

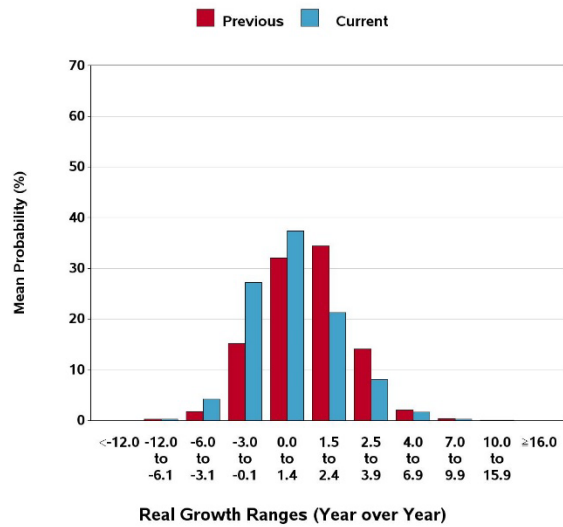*Median Forecasts for Selected Variables in the Current and Previous Surveys*

	Real GDP (%)		Unemployment Rate (%)		Payrolls (000s/month)	
	Previous	New	Previous	New	Previous	New
Quarterly data:						
2022:Q4	1.2	1.0	3.7	3.7	167.9	217.6
2023:Q1	1.1	0.2	3.8	3.8	89.0	79.0
2023:Q2	1.5	0.2	3.9	4.0	96.6	35.8
2023:Q3	1.5	0.9	4.0	4.3	80.7	41.8
2023:Q4	N.A.	2.1	N.A.	4.4	N.A.	-14.5
Annual data (projections are based on annual-average levels):						
2022	1.6	1.9	3.7	3.7	487.5	492.8
2023	1.3	0.7	3.9	4.2	167.6	143.6
2024	2.3	1.8	3.9	4.3	N.A.	N.A.
2025	2.1	2.2	3.9	4.2	N.A.	N.A.

The charts below provide some insight into the degree of uncertainty the forecasters have about their projections for the rate of growth in the annual-average level of real GDP. Each chart presents the forecasters' previous and current estimates of the probability that growth will fall into each of 11 ranges. For 2022, the forecasters are increasing substantially their probability estimates from the previous survey for real GDP growth in the range of 1.5 to 2.4 percent. Over each of the following three years, from 2023 to 2025, the forecasters see a higher probability than they predicted in the survey of three months ago that growth will be 1.4 percent or lower.
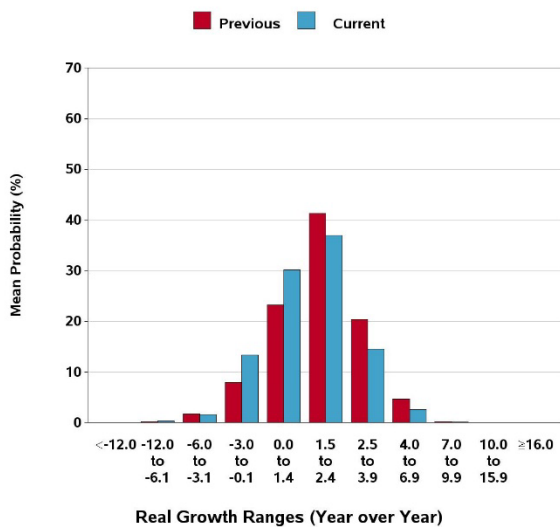
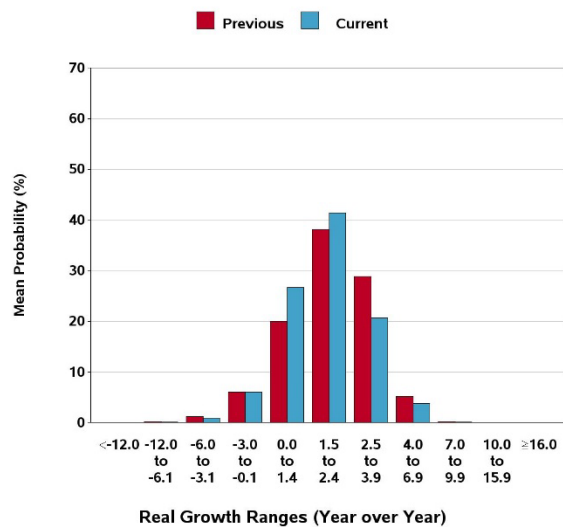### Mean Probabilities for Real GDP Growth in 2022

Legend: Previous, Current

Mean Probability (%) vs Real Growth Ranges (Year over Year)

Ranges: <-12.0, -12.0 to -6.1, -6.0 to -3.1, -3.0 to -0.1, 0.0 to 1.4, 1.5 to 2.4, 2.5 to 3.9, 4.0 to 6.9, 7.0 to 9.9, 10.0 to 15.9, ≥16.0

Mean Probabilities for Real GDP Growth in 2023

Legend: Previous, Current

Mean Probability (%) vs Real Growth Ranges (Year over Year)

Ranges: <-12.0, -12.0 to -6.1, -6.0 to -3.1, -3.0 to -0.1, 0.0 to 1.4, 1.5 to 2.4, 2.5 to 3.9, 4.0 to 6.9, 7.0 to 9.9, 10.0 to 15.9, ≥16.0

Mean Probabilities for Real GDP Growth in 2024

Legend: Previous, Current

Mean Probability (%) vs Real Growth Ranges (Year over Year)

Ranges: <-12.0, -12.0 to -6.1, -6.0 to -3.1, -3.0 to -0.1, 0.0 to 1.4, 1.5 to 2.4, 2.5 to 3.9, 4.0 to 6.9, 7.0 to 9.9, 10.0 to 15.9, ≥16.0

Mean Probabilities for Real GDP Growth in 2025

Legend: Previous, Current

Mean Probability (%) vs Real Growth Ranges (Year over Year)

Ranges: <-12.0, -12.0 to -6.1, -6.0 to -3.1, -3.0 to -0.1, 0.0 to 1.4, 1.5 to 2.4, 2.5 to 3.9, 4.0 to 6.9, 7.0 to 9.9, 10.0 to 15.9, ≥16.0

The forecasters' density projections for unemployment, shown below, shed light on uncertainty about the labor market over the next four years. Each chart presents the forecasters' current and previous estimates of the probability that unemployment will fall into each of 10 ranges. For 2022, the forecasters are raising their probability estimates from the previous survey for an unemployment rate in the range of 3.0 to 3.9 percent. Over each of the following three years, from 2023 to 2025, the forecasters expect a higher probability than they predicted in the previous survey that unemployment will fall into the ranges of 4.0 percent or higher.
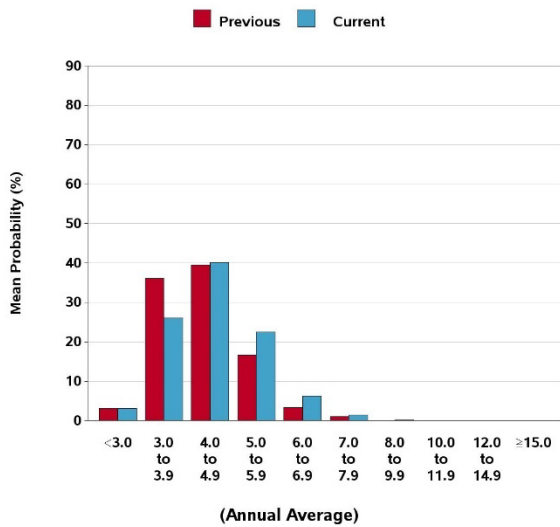
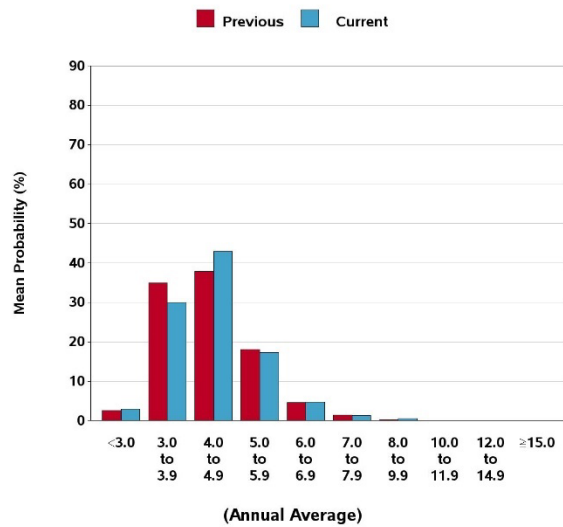**Mean Probabilities for Unemployment Rate in 2022**
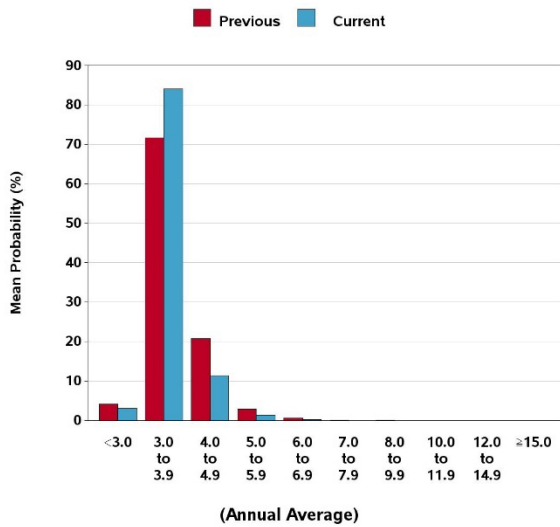
Mean Probabilities for Unemployment Rate in 2023
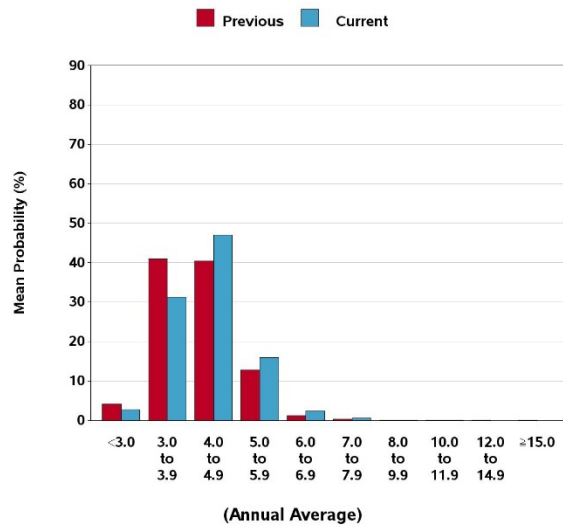
Mean Probabilities for Unemployment Rate in 2024

Mean Probabilities for Unemployment Rate in 2025

3

Forecasters See Higher Inflation

The forecasters expect current-quarter headline CPI inflation will average 5.4 percent at an annual rate, up from the prediction of 4.3 percent in the previous survey. Headline PCE inflation over the current quarter will also be higher at an annual rate of 4.6 percent, up from the last estimate of 3.7 percent.

Projections for headline and core CPI and PCE inflation at nearly all other forecast horizons have also been revised upward, compared with those of the previous survey.

Over the next 10 years, 2022 to 2031, the forecasters expect headline CPI inflation will be at an annual-average rate of 2.95 percent, slightly higher than their previous estimate. The corresponding estimate for 10-year annual-average PCE inflation is 2.58 percent, also slightly higher than the estimate of three months ago.

Median Short-Run and Long-Run Projections for Inflation (Annualized Percentage Points)

	Headline CPI		Core CPI		Headline PCE		Core PCE	
	Previous	Current	Previous	Current	Previous	Current	Previous	Current
Quarterly								
2022:Q4	4.3	5.4	4.6	5.7	3.7	4.6	3.5	4.5
2023:Q1	3.6	4.5	3.7	4.5	2.9	3.8	3.1	3.8
2023:Q2	3.4	3.5	3.2	3.7	2.8	3.1	2.8	3.2
2023:Q3	3.0	3.1	2.8	3.2	2.5	2.7	2.6	2.8
2023:Q4	N.A.	2.9	N.A.	2.9	N.A.	2.7	N.A.	2.7
Q4/Q4 Annual Averages								
2022	7.5	7.7	5.9	6.3	5.8	5.9	4.5	4.8
2023	3.2	3.4	3.1	3.5	2.8	2.9	2.8	3.0
2024	2.5	2.5	2.5	2.6	2.3	2.3	2.2	2.4
Long-Term Annual Averages								
2022-2026	3.50	3.75	N.A.	N.A.	3.00	3.23	N.A.	N.A.
2022-2031	2.80	2.95	N.A.	N.A.	2.45	2.58	N.A.	N.A.

The charts below show the median projections (the red line) and the associated interquartile ranges (gray areas around the red line) for 10-year annual-average CPI and PCE inflation. The charts provide perspective on the upward trend in 10-year inflation expectations in recent surveys.

Projections for the 10-Year Annual-Average Rate of CPI Inflation
(Median and Interquartile Range)
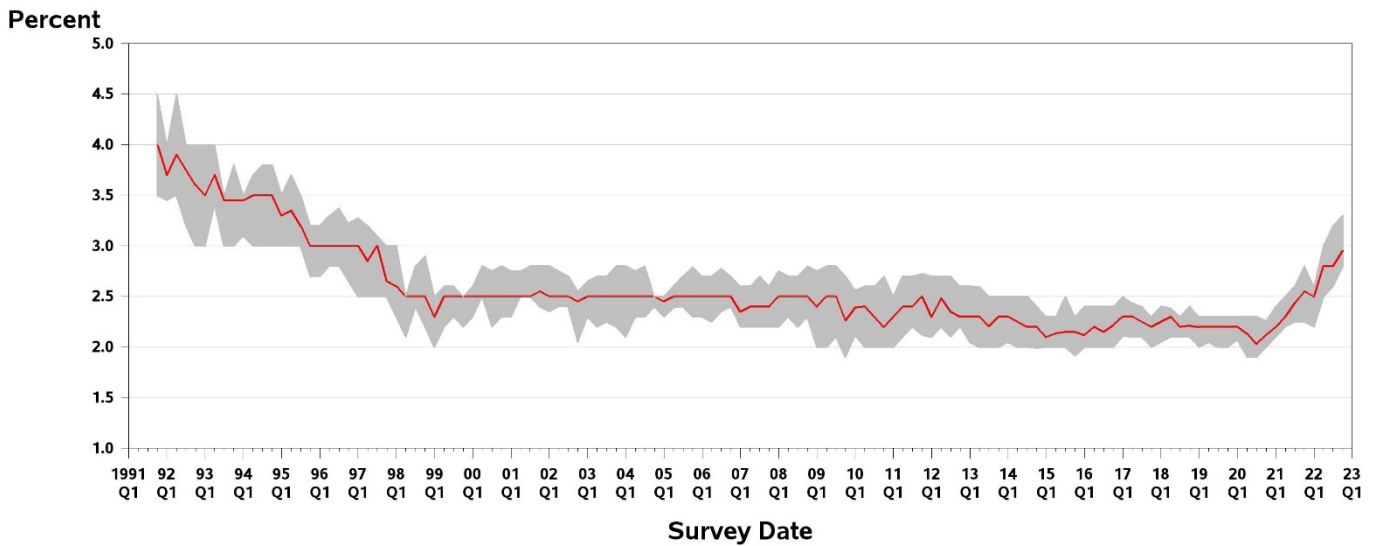
Projections for the 10-Year Annual-Average Rate of PCE Inflation
(Median and Interquartile Range)

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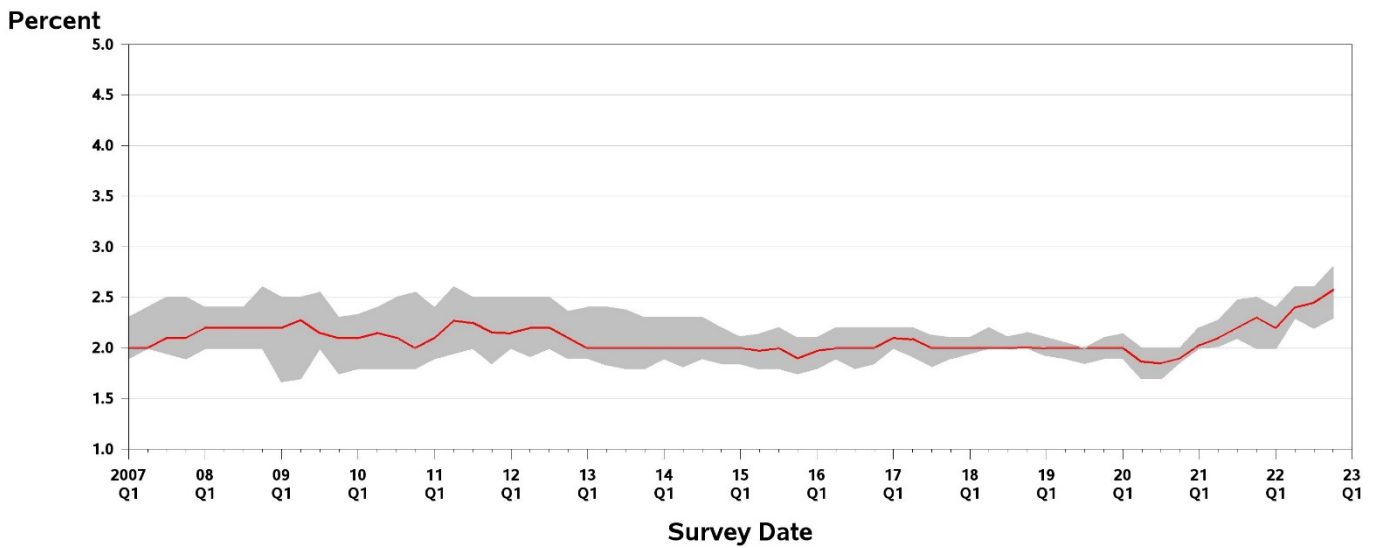
The figures below show the probabilities that the forecasters are assigning to each of 10 possible ranges for fourth-quarter over fourth-quarter core PCE inflation in 2022 and 2023. The forecasters have raised their estimates for the probability that core PCE inflation in 2022 will be 4.0 percent or higher, compared with their prediction in the last survey. They have also raised their estimates for the probability that core PCE inflation in 2023 will be 3.5 percent or higher, compared with their prediction in the survey of three months ago.

Mean Probabilities for Core PCE Inflation in 2022
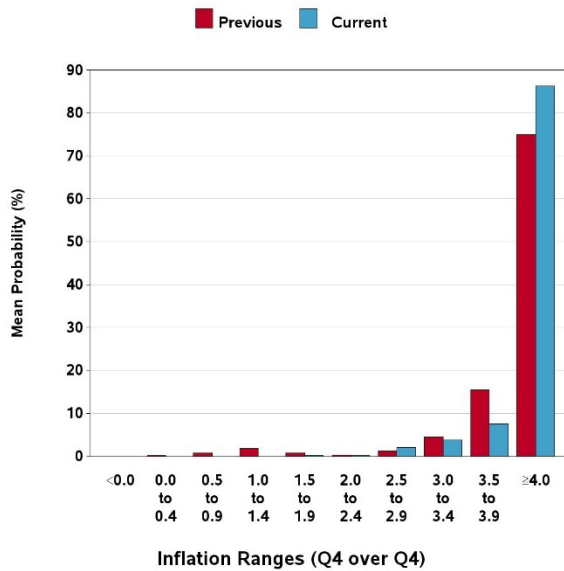
Mean Probabilities for Core PCE Inflation in 2023
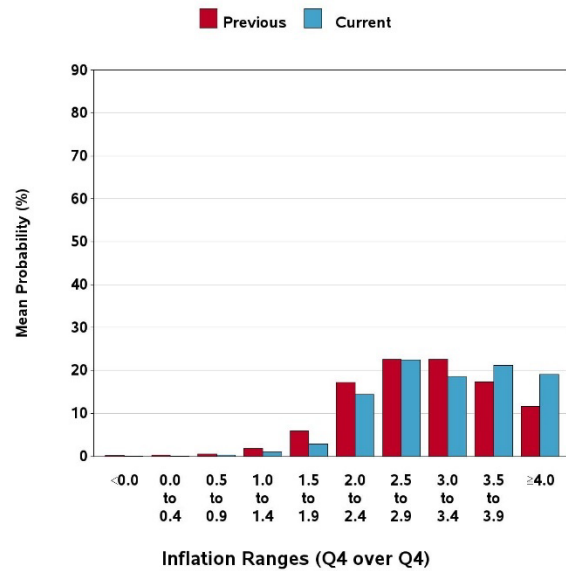
Substantial Risk of a Contraction in Real GDP in 2023
The forecasters see the risk of a downturn this quarter at 36.3 percent, up marginally from the previous survey. However, they have substantially raised their probability estimates of a negative quarter for the following three quarters and predict a near-50 percent chance of a contraction in real GDP in any of the four quarters in 2023.

Risk of a Negative Quarter (%)
Survey Means

Quarterly data:	Previous	New
2022:Q4	36.0	36.3
2023:Q1	38.0	47.2
2023:Q2	36.5	49.4
2023:Q3	34.1	46.1
2023:Q4	N.A.	43.5

The Federal Reserve Bank of Philadelphia thanks the following forecasters for their participation in recent surveys:

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                          SUMMARY TABLE
                 SURVEY OF PROFESSIONAL FORECASTERS
                  MAJOR MACROECONOMIC INDICATORS


          _____     _____

          2022    2023   2023   2023   2023      2022   2023   2024   2025
          Q4      Q1     Q2     Q3     Q4               (YEAR-OVER-YEAR)
          _____     _____


PERCENT GROWTH AT ANNUAL RATES

 1. REAL GDP                1.0    0.2    0.2    0.9    2.1      1.9    0.7    1.8    2.2
    (BILLIONS, CHAIN WEIGHTED)

 2. GDP PRICE INDEX         4.7    4.0    2.7    2.8    2.3      7.0    3.9    N.A.   N.A.
    (PERCENT CHANGE)

 3. NOMINAL GDP             5.8    4.0    3.2    3.7    3.7      9.0    4.5    N.A.   N.A.
    ($ BILLIONS)

 4. NONFARM PAYROLL EMPLOYMENT
    (PERCENT CHANGE)        1.7    0.6    0.3    0.3   -0.1      4.0    1.1    N.A.   N.A.
    (AVG MONTHLY CHANGE)  217.7   79.0   35.8   41.8  -14.5    492.8  143.6   N.A.   N.A.

VARIABLES IN LEVELS

 5. UNEMPLOYMENT RATE       3.7    3.8    4.0    4.3    4.4      3.7    4.2    4.3    4.2
    (PERCENT)

 6. 3-MONTH TREASURY BILL   4.1    4.6    4.6    4.5    4.3      2.0    4.5    3.9    3.3
    (PERCENT)

 7. 10-YEAR TREASURY BOND   4.0    4.2    4.2    4.1    4.0      3.0    4.2    3.8    3.7
    (PERCENT)


          _____     _____

          2022    2023   2023   2023   2023      2022   2023   2024
          Q4      Q1     Q2     Q3     Q4               (Q4-OVER-Q4)
          _____     _____


INFLATION INDICATORS

 8. CPI                     5.4    4.5    3.5    3.1    2.9      7.7    3.4    2.5
    (ANNUAL RATE)

 9. CORE CPI                5.7    4.5    3.7    3.2    2.9      6.3    3.5    2.6
    (ANNUAL RATE)

10. PCE                     4.6    3.8    3.1    2.7    2.7      5.9    2.9    2.3
    (ANNUAL RATE)

11. CORE PCE                4.5    3.8    3.2    2.8    2.7      4.8    3.0    2.4
    (ANNUAL RATE)



Note:   The figures on each line are medians of 38 forecasters.

Source: Research Department, Federal Reserve Bank of Philadelphia.
        Survey of Professional Forecasters, Fourth Quarter 2022.
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SURVEY OF PROFESSIONAL FORECASTERS

Fourth Quarter 2022

Tables

Note: Data in these tables listed as "actual" are the data that were available to the forecasters when they were sent the survey questionnaire on October 27, 2022; the tables do not reflect subsequent revisions to the data. All forecasts were received on or before November 8, 2022.

	NUMBER OF FORECASTERS	ACTUAL 2022 Q3	FORECAST 2022 Q4	FORECAST 2023 Q1	FORECAST 2023 Q2	FORECAST 2023 Q3	FORECAST 2023 Q4	ACTUAL 2021 ANNUAL	FORECAST 2022 ANNUAL	FORECAST 2023 ANNUAL	FORECAST 2024 ANNUAL	FORECAST 2025 ANNUAL
1. GROSS DOMESTIC PRODUCT (GDP) ($ BILLIONS)	36	25663	26028	26286	26493	26732	26978	23315	25415	26551	N.A.	N.A.
2. GDP PRICE INDEX (2012=100)	35	128.19	129.67	130.94	131.81	132.74	133.51	118.92	127.24	132.17	N.A.	N.A.
3. CORPORATE PROFITS AFTER TAXES ($ BILLIONS)	21	N.A.	2565.2	2544.0	2545.6	2554.2	2559.4	2382.9	2508.9	2548.9	N.A.	N.A.
4. UNEMPLOYMENT RATE (PERCENT)	36	3.6	3.7	3.8	4.0	4.3	4.4	5.4	3.7	4.2	4.3	4.2
5. NONFARM PAYROLL EMPLOYMENT (THOUSANDS)	30	152738	153391	153628	153735	153861	153817	146102	152016	153739	N.A.	N.A.
6. INDUSTRIAL PRODUCTION (2017=100)	27	105.0	105.4	105.4	105.4	105.0	105.0	100.0	104.3	105.0	N.A.	N.A.
7. NEW PRIVATE HOUSING STARTS (ANNUAL RATE, MILLIONS)	29	1.46	1.43	1.40	1.38	1.40	1.40	1.61	1.56	1.40	N.A.	N.A.
8. 3-MONTH TREASURY BILL RATE (PERCENT)	35	2.66	4.13	4.57	4.62	4.54	4.32	0.04	2.05	4.53	3.87	3.25
9. MOODY'S AAA CORP BOND YIELD * (PERCENT)	22	N.A.	5.20	5.50	5.60	5.54	5.54	N.A.	4.18	5.53	N.A.	N.A.
10. MOODY'S BAA CORP BOND YIELD * (PERCENT)	21	N.A.	6.33	6.60	6.80	6.68	6.61	N.A.	5.18	6.61	N.A.	N.A.
11. 10-YEAR TREASURY BOND YIELD (PERCENT)	34	3.11	4.04	4.19	4.20	4.08	4.00	1.44	3.00	4.16	3.84	3.65
12. REAL GDP (BILLIONS, CHAIN WEIGHTED)	38	20022	20072	20081	20092	20136	20238	19610	19977	20109	20471	20915
13. TOTAL CONSUMPTION EXPENDITURE (BILLIONS, CHAIN WEIGHTED)	33	14149.0	14202.9	14218.9	14253.8	14288.9	14339.0	13754.1	14119.9	14261.8	N.A.	N.A.
14. NONRESIDENTIAL FIXED INVESTMENT (BILLIONS, CHAIN WEIGHTED)	32	2942.4	2954.7	2962.3	2963.8	2977.8	2991.1	2835.4	2931.8	2971.1	N.A.	N.A.
15. RESIDENTIAL FIXED INVESTMENT (BILLIONS, CHAIN WEIGHTED)	32	621.5	596.8	582.8	574.7	576.2	578.6	719.4	648.4	575.1	N.A.	N.A.
16. FEDERAL GOVERNMENT C & I (BILLIONS, CHAIN WEIGHTED)	32	1353.4	1357.6	1361.8	1366.4	1370.7	1374.6	1390.5	1351.5	1371.0	N.A.	N.A.
17. STATE AND LOCAL GOVT C & I (BILLIONS, CHAIN WEIGHTED)	32	2046.5	2052.7	2060.4	2067.7	2075.9	2082.6	2037.9	2044.6	2070.3	N.A.	N.A.
18. CHANGE IN PRIVATE INVENTORIES (BILLIONS, CHAIN WEIGHTED)	32	61.9	59.5	50.0	35.0	38.5	45.1	-19.4	111.5	42.7	N.A.	N.A.
19. NET EXPORTS (BILLIONS, CHAIN WEIGHTED)	32	-1274.0	-1280.6	-1279.6	-1287.5	-1280.7	-1272.8	-1233.4	-1368.5	-1286.2	N.A.	N.A.

* The historical values of Moody's Aaa and Baa rates are proprietary and therefore not available to the general public.

Source: Research Department, Federal Reserve Bank of Philadelphia. Survey of Professional Forecasters, Fourth Quarter 2022.

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                            TABLE TWO
                  MAJOR MACROECONOMIC INDICATORS
                  PERCENTAGE CHANGES AT ANNUAL RATES
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	NUMBER OF FORECASTERS	Q3 2022 TO Q4 2022	Q4 2022 TO Q1 2023	Q1 2023 TO Q2 2023	Q2 2023 TO Q3 2023	Q3 2023 TO Q4 2023	2021 TO 2022	2022 TO 2023	2023 TO 2024	2024 TO 2025
1. GROSS DOMESTIC PRODUCT (GDP) ($ BILLIONS)	36	5.8	4.0	3.2	3.7	3.7	9.0	4.5	N.A.	N.A.
2. GDP PRICE INDEX (2012=100)	35	4.7	4.0	2.7	2.8	2.3	7.0	3.9	N.A.	N.A.
3. CORPORATE PROFITS AFTER TAXES ($ BILLIONS)	21	-0.6	-3.3	0.3	1.4	0.8	5.3	1.6	N.A.	N.A.
4. UNEMPLOYMENT RATE (PERCENT)	36	0.1	0.1	0.2	0.2	0.2	-1.7	0.5	0.1	-0.1
5. NONFARM PAYROLL EMPLOYMENT (PERCENT CHANGE)	30	1.7	0.6	0.3	0.3	-0.1	4.0	1.1	N.A.	N.A.
(AVG MONTHLY CHANGE)	30	217.7	79.0	35.8	41.8	-14.5	492.8	143.6	N.A.	N.A.
6. INDUSTRIAL PRODUCTION (2017=100)	27	1.5	0.1	0.1	-1.7	0.0	4.3	0.7	N.A.	N.A.
7. NEW PRIVATE HOUSING STARTS (ANNUAL RATE, MILLIONS)	29	-8.2	-8.1	-5.6	5.9	0.0	-2.5	-10.5	N.A.	N.A.
8. 3-MONTH TREASURY BILL RATE (PERCENT)	35	1.47	0.44	0.05	-0.08	-0.22	2.01	2.48	-0.66	-0.62
9. MOODY'S AAA CORP BOND YIELD * (PERCENT)	22	N.A.	0.30	0.10	-0.06	-0.00	N.A.	1.35	N.A.	N.A.
10. MOODY'S BAA CORP BOND YIELD * (PERCENT)	21	N.A.	0.27	0.20	-0.12	-0.07	N.A.	1.44	N.A.	N.A.
11. 10-YEAR TREASURY BOND YIELD (PERCENT)	34	0.93	0.15	0.01	-0.12	-0.08	1.56	1.16	-0.32	-0.19
12. REAL GDP (BILLIONS, CHAIN WEIGHTED)	38	1.0	0.2	0.2	0.9	2.1	1.9	0.7	1.8	2.2
13. TOTAL CONSUMPTION EXPENDITURE (BILLIONS, CHAIN WEIGHTED)	33	1.5	0.5	1.0	1.0	1.4	2.7	1.0	N.A.	N.A.
14. NONRESIDENTIAL FIXED INVESTMENT (BILLIONS, CHAIN WEIGHTED)	32	1.7	1.0	0.2	1.9	1.8	3.4	1.3	N.A.	N.A.
15. RESIDENTIAL FIXED INVESTMENT (BILLIONS, CHAIN WEIGHTED)	32	-15.0	-9.0	-5.5	1.0	1.7	-9.9	-11.3	N.A.	N.A.
16. FEDERAL GOVERNMENT C & I (BILLIONS, CHAIN WEIGHTED)	32	1.2	1.3	1.3	1.2	1.1	-2.8	1.4	N.A.	N.A.
17. STATE AND LOCAL GOVT C & I (BILLIONS, CHAIN WEIGHTED)	32	1.2	1.5	1.4	1.6	1.3	0.3	1.3	N.A.	N.A.
18. CHANGE IN PRIVATE INVENTORIES (BILLIONS, CHAIN WEIGHTED)	32	-2.4	-9.5	-15.0	3.5	6.6	130.9	-68.8	N.A.	N.A.
19. NET EXPORTS (BILLIONS, CHAIN WEIGHTED)	32	-6.6	1.0	-7.9	6.8	7.9	-135.1	82.3	N.A.	N.A.

* The historical values of Moody's Aaa and Baa rates are proprietary and therefore not available to the general public.

Note: Figures for unemployment rate, 3-month Treasury bill rate, Moody's Aaa corporate bond yield,
     Moody's Baa corporate bond yield, and 10-year Treasury bond yield are changes in these rates, in percentage points.
     Figures for change in private inventories and net exports are changes in billions of chain-weighted dollars.
     All others are percentage changes at annual rates.

Source: Research Department, Federal Reserve Bank of Philadelphia. Survey of Professional Forecasters, Fourth Quarter 2022.

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                              TABLE THREE
                         MAJOR PRICE INDICATORS
                      MEDIANS OF FORECASTER PREDICTIONS
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	NUMBER OF FORECASTERS	ACTUAL	FORECAST(Q/Q)					ACTUAL	FORECAST(Q4/Q4)		
		2022 Q3	2022 Q4	2023 Q1	2023 Q2	2023 Q3	2023 Q4	2021 ANNUAL	2022 ANNUAL	2023 ANNUAL	2024 ANNUAL
1. CONSUMER PRICE INDEX (ANNUAL RATE)	35	5.7	5.4	4.5	3.5	3.1	2.9	6.7	7.7	3.4	2.5
2. CORE CONSUMER PRICE INDEX (ANNUAL RATE)	34	6.4	5.7	4.5	3.7	3.2	2.9	5.0	6.3	3.5	2.6
3. PCE PRICE INDEX (ANNUAL RATE)	34	4.2	4.6	3.8	3.1	2.7	2.7	5.7	5.9	2.9	2.3
4. CORE PCE PRICE INDEX (ANNUAL RATE)	34	4.5	4.5	3.8	3.2	2.8	2.7	4.7	4.8	3.0	2.4

Source: Research Department, Federal Reserve Bank of Philadelphia. Survey of Professional Forecasters, Fourth Quarter 2022.

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                                   TABLE FOUR
                                  YIELD SPREADS
                        MEDIANS OF FORECASTER PREDICTIONS
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	NUMBER OF FORECASTERS	ACTUAL 2022 Q3	FORECAST 2022 Q4	FORECAST 2023 Q1	FORECAST 2023 Q2	FORECAST 2023 Q3	FORECAST 2023 Q4	ACTUAL 2021 ANNUAL	FORECAST 2022 ANNUAL	FORECAST 2023 ANNUAL	FORECAST 2024 ANNUAL	FORECAST 2025 ANNUAL
1. TBOND MINUS TBILL (PERCENTAGE POINTS)	33	0.44	-0.08	-0.34	-0.33	-0.28	-0.28	1.40	0.96	-0.27	0.14	0.50
2. AAA MINUS TBOND (PERCENTAGE POINTS)	22	N.A.	1.13	1.20	1.20	1.18	1.17	N.A.	1.18	1.19	N.A.	N.A.
3. BAA MINUS TBOND (PERCENTAGE POINTS)	21	N.A.	2.25	2.26	2.34	2.30	2.25	N.A.	2.16	2.34	N.A.	N.A.
4. BAA MINUS AAA (PERCENTAGE POINTS)	20	N.A.	1.10	1.20	1.16	1.12	1.10	N.A.	0.99	1.17	N.A.	N.A.

Notes:

TBOND is the rate on 10-year Treasury bonds.
TBILL is the rate on 3-month Treasury bills.
AAA is the rate on Moody's Aaa corporate bonds.
BAA is the rate on Moody's Baa corporate bonds.

The historical values for interest rate spreads for Moody's Aaa and Baa rates are proprietary and therefore not available to the general public.

Each interest rate spread is computed as the median value of the forecasters' spreads. These median values may differ from those computed as the difference between the median values of each interest rate in the spread.

Source: Research Department, Federal Reserve Bank of Philadelphia. Survey of Professional Forecasters, Fourth Quarter 2022.

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                        TABLE FIVE
           ESTIMATED PROBABILITY OF DECLINE IN REAL GDP
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ESTIMATED PROBABILITY (CHANCES IN 100)	Q3 2022 TO Q4 2022	Q4 2022 TO Q1 2023	Q1 2023 TO Q2 2023	Q2 2023 TO Q3 2023	Q3 2023 TO Q4 2023
	NUMBER OF FORECASTERS				
10 OR LESS	5	0	0	0	0
11 TO 20	5	3	4	4	4
21 TO 30	5	6	2	7	9
31 TO 40	6	6	7	5	4
41 TO 50	3	4	6	2	2
51 TO 60	2	4	2	2	3
61 TO 70	1	1	4	4	4
71 TO 80	1	3	2	6	4
81 TO 90	1	3	3	0	0
91 AND OVER	1	0	0	0	0
NOT REPORTING	8	8	8	8	8
MEAN AND MEDIAN					
MEDIAN PROBABILITY	31.50	42.50	45.00	40.00	37.00
MEAN PROBABILITY	36.31	47.17	49.37	46.14	43.50

Note: Total number of forecasters reporting is 30.

Source: Research Department, Federal Reserve Bank of Philadelphia.
        Survey of Professional Forecasters, Fourth Quarter 2022.

TABLE SIX
MEAN PROBABILITIES

MEAN PROBABILITY ATTACHED TO POSSIBLE
CIVILIAN UNEMPLOYMENT RATES:
(ANNUAL AVERAGE)

	2022	2023	2024	2025
15.0 PERCENT OR MORE	0.00	0.00	0.00	0.00
12.0 TO 14.9 PERCENT	0.00	0.00	0.00	0.00
10.0 TO 11.9 PERCENT	0.00	0.00	0.09	0.01
8.0 TO 9.9 PERCENT	0.00	0.00	0.22	0.56
7.0 TO 7.9 PERCENT	0.00	0.63	1.40	1.39
6.0 TO 6.9 PERCENT	0.17	2.32	6.33	4.72
5.0 TO 5.9 PERCENT	1.30	15.99	22.57	17.30
4.0 TO 4.9 PERCENT	11.30	46.98	40.20	42.99
3.0 TO 3.9 PERCENT	84.11	31.31	26.12	30.04
LESS THAN 3.0 PERCENT	3.11	2.78	3.07	2.99

MEAN PROBABILITY ATTACHED TO POSSIBLE
PERCENT CHANGES IN REAL GDP:
(ANNUAL-AVERAGE OVER ANNUAL-AVERAGE)

	2021-2022	2022-2023	2023-2024	2024-2025
16.0 PERCENT OR MORE	0.00	0.00	0.00	0.00
10.0 TO 15.9 PERCENT	0.03	0.03	0.04	0.00
7.0 TO 9.9 PERCENT	0.03	0.23	0.19	0.15
4.0 TO 6.9 PERCENT	0.47	1.63	2.66	3.84
2.5 TO 3.9 PERCENT	6.91	8.00	14.56	20.66
1.5 TO 2.4 PERCENT	64.24	21.23	36.96	41.44
0.0 TO 1.4 PERCENT	24.53	37.34	30.18	26.68
-3.0 TO -0.1 PERCENT	3.66	27.18	13.40	6.08
-6.0 TO -3.1 PERCENT	0.10	4.15	1.61	0.96
-12.0 TO -6.1 PERCENT	0.03	0.20	0.37	0.19
LESS THAN -12.0 PERCENT	0.00	0.00	0.04	0.00

MEAN PROBABILITY ATTACHED TO POSSIBLE
PERCENT CHANGES IN GDP PRICE INDEX:
(ANNUAL-AVERAGE OVER ANNUAL-AVERAGE)

	2021-2022	2022-2023
4.0 PERCENT OR MORE	89.20	38.11
3.5 TO 3.9 PERCENT	6.80	31.10
3.0 TO 3.4 PERCENT	0.83	15.82
2.5 TO 2.9 PERCENT	0.17	8.38
2.0 TO 2.4 PERCENT	1.17	3.66
1.5 TO 1.9 PERCENT	1.00	1.98
1.0 TO 1.4 PERCENT	0.67	0.60
0.5 TO 0.9 PERCENT	0.17	0.28
0.0 TO 0.4 PERCENT	0.00	0.04
LESS THAN 0.0 PERCENT	0.00	0.03

Source: Research Department, Federal Reserve Bank of Philadelphia.
Survey of Professional Forecasters, Fourth Quarter 2022.

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                          TABLE SEVEN
          MEAN PROBABILITY OF CORE CPI AND CORE PCE INFLATION (Q4/Q4)



        MEAN PROBABILITY ATTACHED TO CORE CPI INFLATION:

                              21Q4 TO 22Q4   22Q4 TO 23Q4
                              _____   _____


        4.0 PERCENT OR MORE      91.44          28.74
        3.5 TO 3.9 PERCENT        6.19          18.60
        3.0 TO 3.4 PERCENT        2.00          20.99
        2.5 TO 2.9 PERCENT        0.19          21.91
        2.0 TO 2.4 PERCENT        0.19           6.83
        1.5 TO 1.9 PERCENT        0.00           1.69
        1.0 TO 1.4 PERCENT        0.00           0.86
        0.5 TO 0.9 PERCENT        0.00           0.32
        0.0 TO 0.4 PERCENT        0.00           0.05
   LESS THAN 0.0 PERCENT          0.00           0.01



        MEAN PROBABILITY ATTACHED TO CORE PCE INFLATION:

                              21Q4 TO 22Q4   22Q4 TO 23Q4
                              _____   _____


        4.0 PERCENT OR MORE      86.28          19.07
        3.5 TO 3.9 PERCENT        7.57          21.17
        3.0 TO 3.4 PERCENT        3.74          18.63
        2.5 TO 2.9 PERCENT        2.04          22.42
        2.0 TO 2.4 PERCENT        0.19          14.36
        1.5 TO 1.9 PERCENT        0.19           2.84
        1.0 TO 1.4 PERCENT        0.00           1.05
        0.5 TO 0.9 PERCENT        0.00           0.34
        0.0 TO 0.4 PERCENT        0.00           0.09
   LESS THAN 0.0 PERCENT          0.00           0.04
```

Source: Research Department, Federal Reserve Bank of Philadelphia.
        Survey of Professional Forecasters, Fourth Quarter 2022.

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                        TABLE EIGHT
        LONG-TERM (5-YEAR AND 10-YEAR) INFLATION FORECASTS



        ANNUAL AVERAGE OVER THE NEXT 5 YEARS: 2022-2026
        ===============================================

        CPI INFLATION RATE              PCE INFLATION RATE
        ------------------------        ------------------------
        MINIMUM           2.40          MINIMUM           2.00
        LOWER QUARTILE    3.50          LOWER QUARTILE    2.93
        MEDIAN            3.75          MEDIAN            3.23
        UPPER QUARTILE    4.10          UPPER QUARTILE    3.43
        MAXIMUM           5.90          MAXIMUM           4.90
        MEAN              3.89          MEAN              3.28
        STD. DEVIATION    0.75          STD. DEVIATION    0.61
        N                   29          N                   28
        MISSING              9          MISSING             10


        ANNUAL AVERAGE OVER THE FOLLOWING 5 YEARS: 2027-2031
        ====================================================

        CPI INFLATION RATE              PCE INFLATION RATE
        ------------------------        ------------------------
        MINIMUM           1.61          MINIMUM           1.26
        LOWER QUARTILE    2.01          LOWER QUARTILE    1.80
        MEDIAN            2.21          MEDIAN            2.00
        UPPER QUARTILE    2.41          UPPER QUARTILE    2.10
        MAXIMUM           3.12          MAXIMUM           2.49
        MEAN              2.25          MEAN              1.96
        STD. DEVIATION    0.31          STD. DEVIATION    0.27
        N                   27          N                   26
        MISSING             11          MISSING             12


        ANNUAL AVERAGE OVER THE NEXT 10 YEARS: 2022-2031
        ===============================================

        CPI INFLATION RATE              PCE INFLATION RATE
        ------------------------        ------------------------
        MINIMUM           2.20          MINIMUM           1.80
        LOWER QUARTILE    2.80          LOWER QUARTILE    2.30
        MEDIAN            2.95          MEDIAN            2.58
        UPPER QUARTILE    3.30          UPPER QUARTILE    2.80
        MAXIMUM           4.50          MAXIMUM           3.50
        MEAN              3.07          MEAN              2.61
        STD. DEVIATION    0.49          STD. DEVIATION    0.40
        N                   27          N                   26
        MISSING             11          MISSING             12
```

Note: The summary statistics for each forecast horizon are computed on a sample of panelists
        that may differ from one horizon to the next. The usual identity linking the 10-year
        horizon to the two underlying five-year horizons may not hold in the results.

Source: Research Department, Federal Reserve Bank of Philadelphia.
        Survey of Professional Forecasters, Fourth Quarter 2022.