SURVEY OF PROFESSIONAL FORECASTERS

FOURTH QUARTER 2023

Forecasters Upgrade Growth and Job Gains in 2023 and 2024
The outlook for the U.S. economy looks somewhat better now than it did three months ago, according to 34 forecasters surveyed by the Federal Reserve Bank of Philadelphia. The forecasters predict the economy will expand at an annual rate of 1.3 percent this quarter, up slightly from the prediction of 1.2 percent in the last survey. On an annual-average over annual-average basis, the forecasters expect real GDP to increase 2.4 percent in 2023 and 1.7 percent in 2024. These annual projections are 0.3 and 0.4 percentage point higher than the estimates in the previous survey.

The forecasters see little change in the outlook for the unemployment rate from the survey of three months ago. On an annual-average basis, the forecasters expect the unemployment rate will increase from 3.7 percent in 2023 to 4.0 percent in 2026. These projections are within 0.1 percentage point of the projections from the last survey.

On the employment front, the forecasters predict higher job gains for 2023 and 2024. The projections for the annual-average level of nonfarm payroll employment imply job gains at a monthly rate of 296,500 in 2023 and 120,000 in 2024, up from the previous estimate of 288,600 and 94,800, respectively. (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:						
2023:Q4	1.2	1.3	3.7	3.9	103.7	148.8
2024:Q1	1.1	0.8	3.9	4.0	56.5	65.7
2024:Q2	1.0	1.3	4.0	4.0	78.0	97.9
2024:Q3	1.3	1.5	4.1	4.2	77.9	81.5
2024:Q4	N.A.	1.7	N.A.	4.2	N.A.	118.8
Annual data (projections are based on annual-average levels):						
2023	2.1	2.4	3.6	3.7	288.6	296.5
2024	1.3	1.7	4.0	4.1	94.8	120.0
2025	2.1	1.8	4.2	4.2	N.A.	N.A.
2026	1.7	2.1	4.1	4.0	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 2023, the forecasters are increasing their probability estimates from the previous survey for real GDP growth in the range of 2.5 percent to 3.9 percent. Over each of the following three years, from 2024 to 2026, the probabilities are little changed compared with the survey of three months ago.
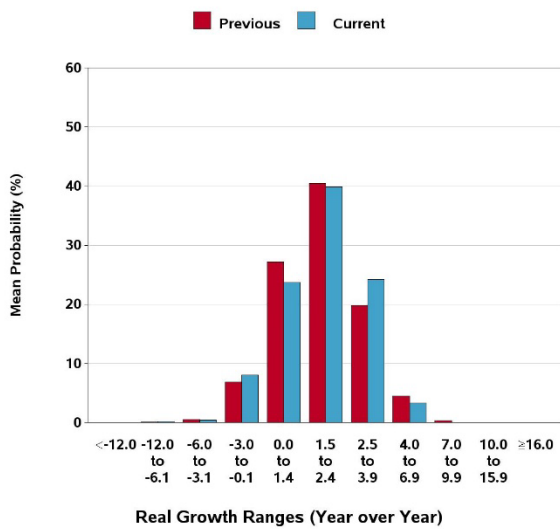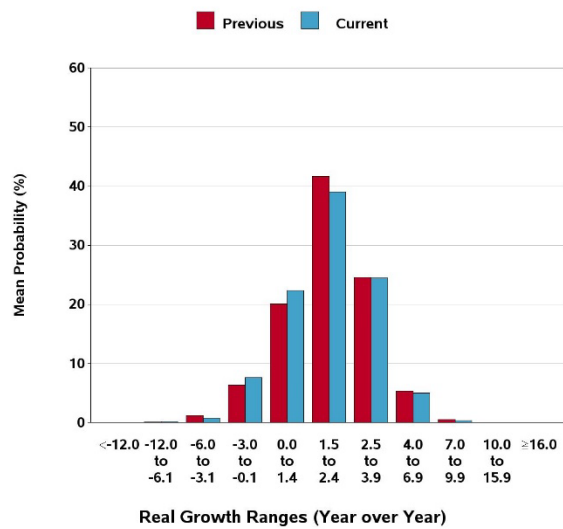
Mean Probabilities for Real GDP Growth in 2023
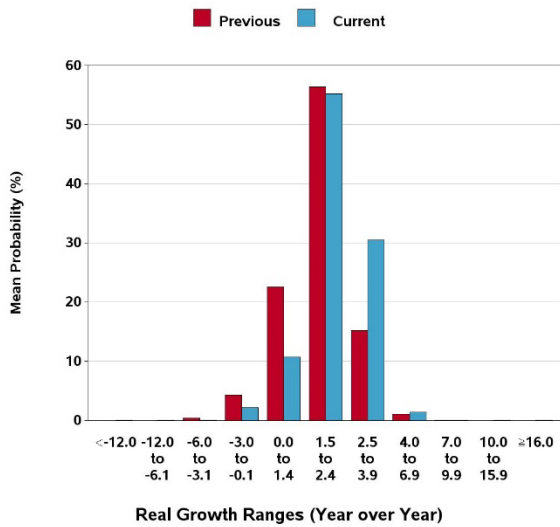
Mean Probabilities for Real GDP Growth in 2024
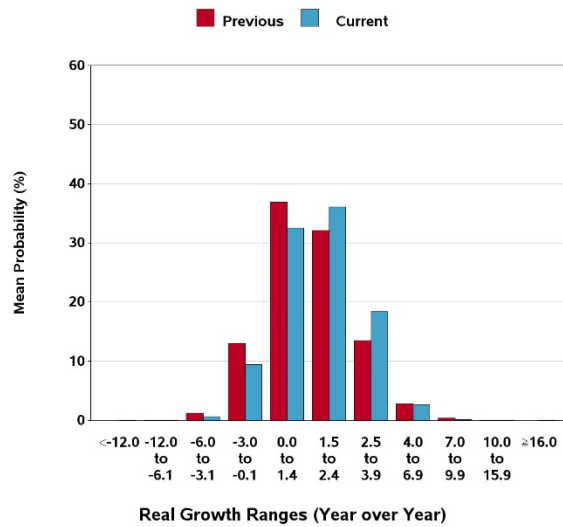
### Mean Probabilities for Real GDP Growth in 2025

Mean Probabilities for Real GDP Growth in 2026

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 2023, the forecasters are raising their probability estimates from the previous survey for an unemployment rate in the range of 3.0 percent to 3.9 percent. Over each of the following three years, the probabilities for the unemployment rate are little changed compared with the previous survey.

Mean Probabilities for Unemployment Rate in 2023
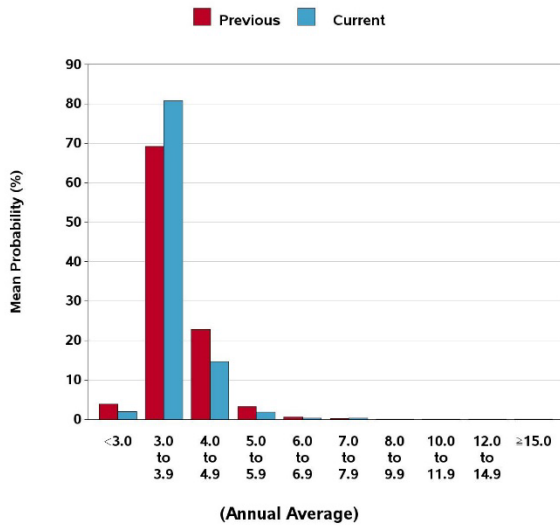
Mean Probabilities for Unemployment Rate in 2024
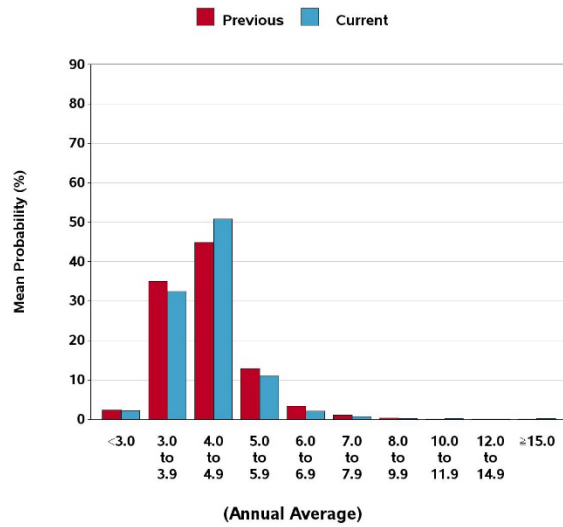
Mean Probabilities for Unemployment Rate in 2025
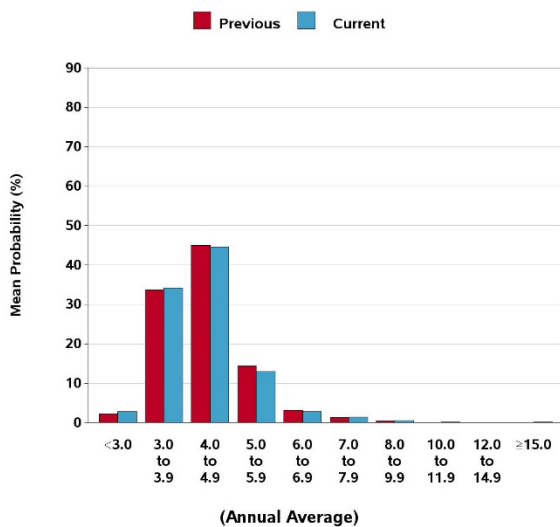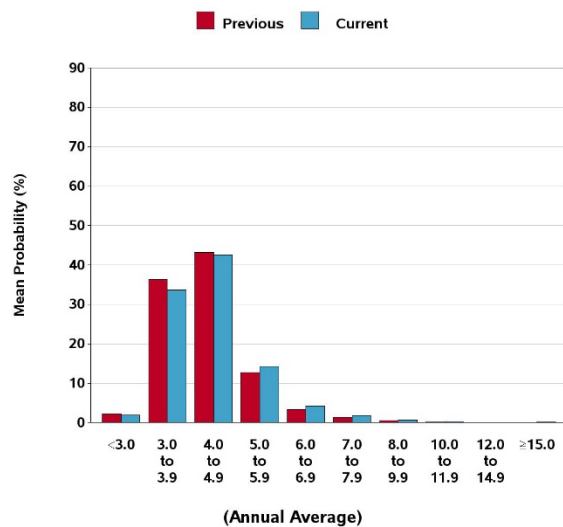

Mean Probabilities for Unemployment Rate in 2026

Forecasters Raise Their Near-Term Projections for Headline Inflation
The forecasters expect current-quarter headline CPI inflation will average 3.3 percent at an annual rate, up from their prediction of 2.9 percent in the previous survey. Headline PCE inflation over the current quarter will also be slightly higher at an annual rate of 2.9 percent, marking an upward revision from the previous estimate. The predictions for current-quarter core CPI and core PCE inflation, on the other hand, are lower than those of the previous estimates.

Projections for headline and core CPI and PCE inflation in 2024 and 2025 are little changed compared with those of the previous survey.

Over the next 10 years, 2023 to 2032, the forecasters expect headline CPI inflation to average 2.40 percent at an annual rate, unchanged from the previous estimate. The corresponding estimate for 10-year annual-average PCE inflation is 2.22 percent, slightly higher than the estimate of the previous survey.

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								
2023:Q4	2.9	3.3	3.2	3.0	2.8	2.9	2.8	2.7
2024:Q1	2.6	2.8	2.9	2.8	2.5	2.5	2.6	2.7
2024:Q2	2.5	2.6	2.7	2.6	2.5	2.5	2.5	2.4
2024:Q3	2.6	2.5	2.6	2.5	2.4	2.3	2.3	2.3
2024:Q4	N.A.	2.4	N.A.	2.4	N.A.	2.3	N.A.	2.2
Q4/Q4 Annual Averages								
2023	3.1	3.3	4.1	3.9	3.0	3.1	3.7	3.5
2024	2.5	2.5	2.7	2.6	2.4	2.4	2.4	2.4
2025	2.4	2.3	2.3	2.3	2.2	2.1	2.1	2.1
Long-Term Annual Averages								
2023-2027	2.68	2.60	N.A.	N.A.	2.50	2.46	N.A.	N.A.
2023-2032	2.40	2.40	N.A.	N.A.	2.20	2.22	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 current survey's unchanged projection for long-term CPI inflation and the nearly unchanged projection for long-term PCE inflation.

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

Percent

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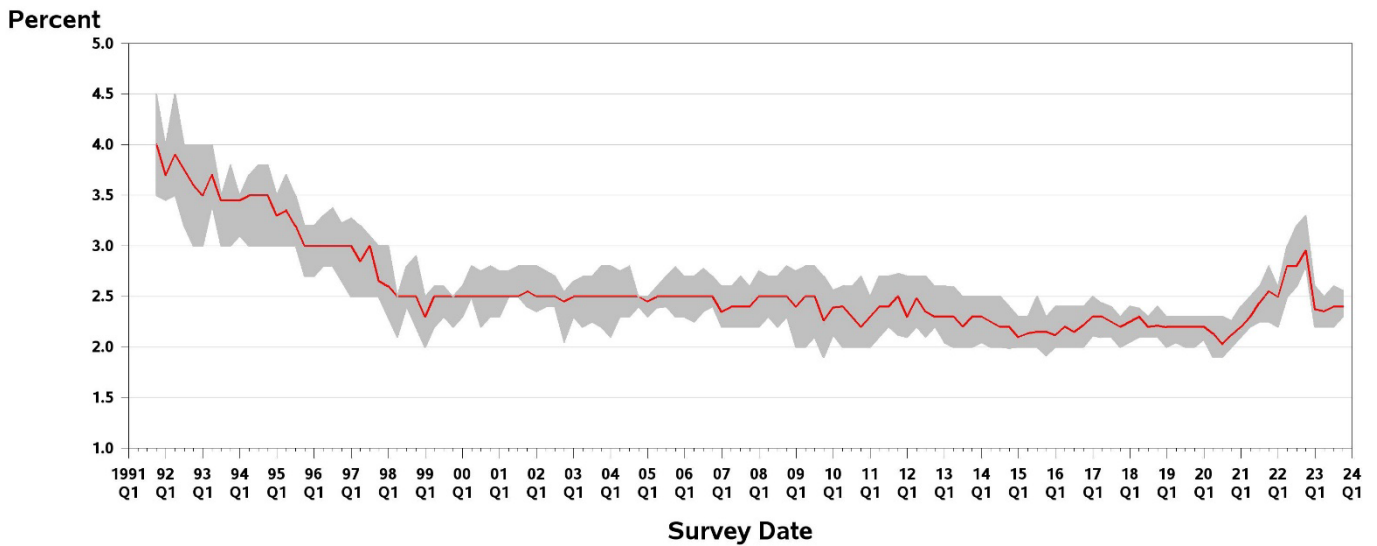
Projections for the 10-Year Annual-Average Rate of PCE Inflation
(Median and Interquartile Range)

Percent

Survey Date

5
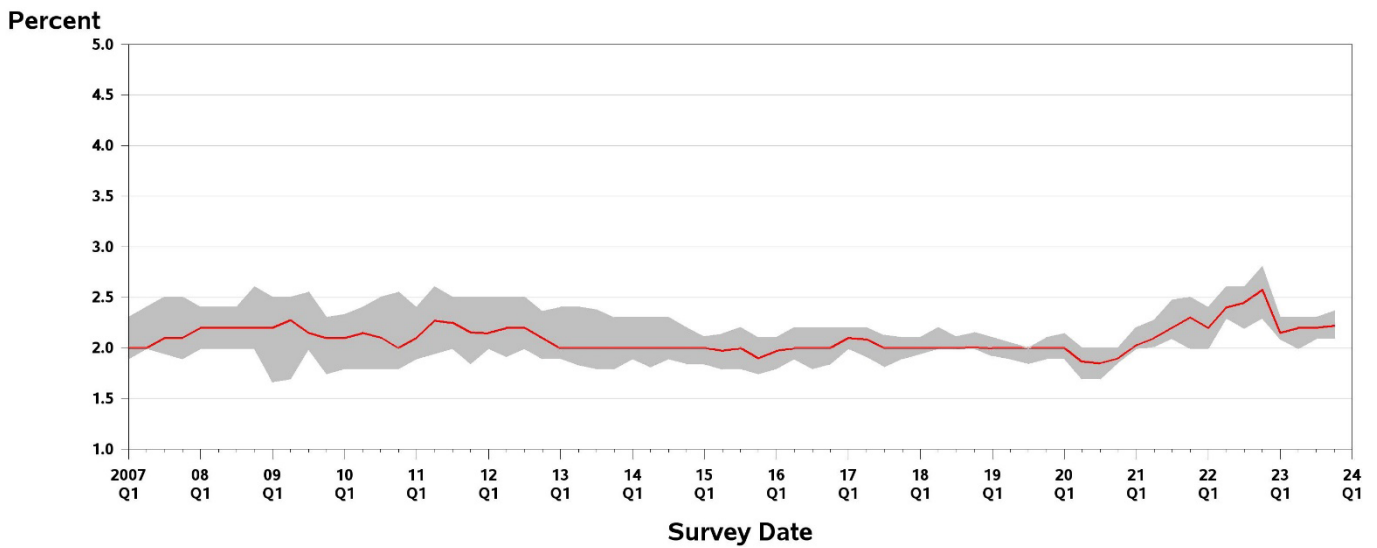
The figures below show the probabilities that the forecasters are assigning to each of 10 possible ranges for fourth-quarter over fourth-quarter core PCE inflation in 2023 and 2024. Notably, the forecasters have significantly raised their estimates for the probability that core PCE inflation in 2023 will be in the range of 3.0 percent to 3.4 percent, compared with their predictions in the last survey.

Mean Probabilities for Core PCE Inflation in 2023
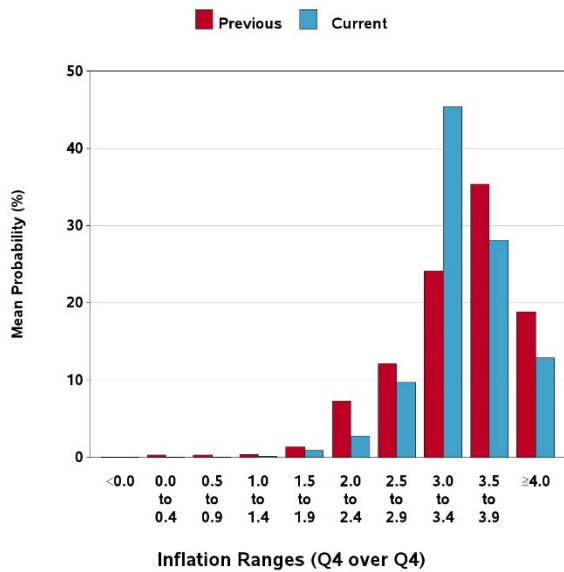
Mean Probabilities for Core PCE Inflation in 2024
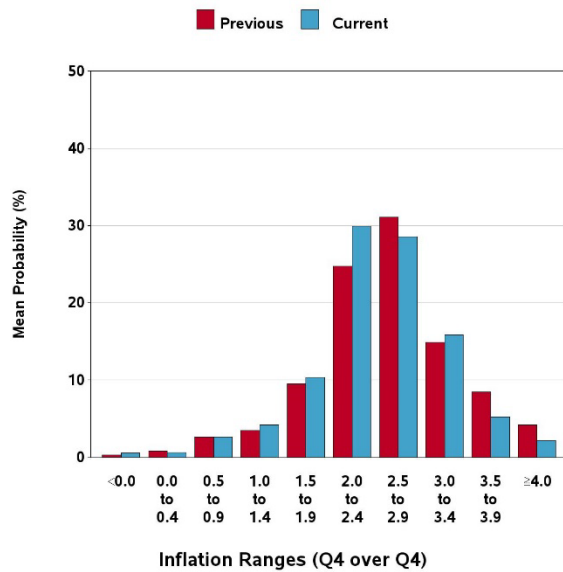
Higher Risk of a Contraction in Real GDP in 2024
The forecasters see the risk of a downturn in real GDP this quarter at 31.8 percent, down from the previous estimate of 34.4 percent. However, they have raised their probability estimates for negative growth for the following three quarters, compared with their previous estimates. The forecasters now predict a mid-30 percent to a near-40 percent chance of a contraction in real GDP in any of the four quarters in 2024.

Risk of a Negative Quarter (%)
Survey Means

Quarterly data:	Previous	New
2023:Q4	34.4	31.8
2024:Q1	37.6	40.9
2024:Q2	35.4	40.2
2024:Q3	34.4	36.8
2024:Q4	N.A.	34.7

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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
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	2023 Q4	2024 Q1	2024 Q2	2024 Q3	2024 Q4	2023	2024 (YEAR-OVER-YEAR)	2025	2026
PERCENT GROWTH AT ANNUAL RATES									
1. REAL GDP (BILLIONS, CHAIN WEIGHTED)	1.3	0.8	1.3	1.5	1.7	2.4	1.7	1.8	2.1
2. GDP PRICE INDEX (PERCENT CHANGE)	2.8	2.4	2.1	2.2	2.3	3.7	2.5	N.A.	N.A.
3. NOMINAL GDP ($ BILLIONS)	4.1	3.2	4.2	4.0	3.9	6.2	4.5	N.A.	N.A.
4. NONFARM PAYROLL EMPLOYMENT (PERCENT CHANGE)	1.1	0.5	0.7	0.6	0.9	2.3	0.9	N.A.	N.A.
(AVG MONTHLY CHANGE)	148.8	65.7	97.9	81.5	118.8	296.5	120.0	N.A.	N.A.
VARIABLES IN LEVELS									
5. UNEMPLOYMENT RATE (PERCENT)	3.9	4.0	4.0	4.2	4.2	3.7	4.1	4.2	4.0
6. 3-MONTH TREASURY BILL (PERCENT)	5.4	5.3	5.3	5.0	4.7	5.1	5.1	3.9	3.0
7. 10-YEAR TREASURY BOND (PERCENT)	4.6	4.5	4.4	4.2	4.0	4.0	4.3	4.0	4.0

	2023 Q4	2024 Q1	2024 Q2	2024 Q3	2024 Q4	2023	2024 (Q4-OVER-Q4)	2025
INFLATION INDICATORS								
8. CPI (ANNUAL RATE)	3.3	2.8	2.6	2.5	2.4	3.3	2.5	2.3
9. CORE CPI (ANNUAL RATE)	3.0	2.8	2.6	2.5	2.4	3.9	2.6	2.3
10. PCE (ANNUAL RATE)	2.9	2.5	2.5	2.3	2.3	3.1	2.4	2.1
11. CORE PCE (ANNUAL RATE)	2.7	2.7	2.4	2.3	2.2	3.5	2.4	2.1

Note: The figures on each line are medians of 34 forecasters.

Source: Research Department, Federal Reserve Bank of Philadelphia.
        Survey of Professional Forecasters, Fourth Quarter 2023.

SURVEY OF PROFESSIONAL FORECASTERS

Fourth Quarter 2023

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 26, 2023; the tables do not reflect subsequent revisions to the data. All forecasts were received on or before November 7, 2023.

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                              TABLE ONE
                   MAJOR MACROECONOMIC INDICATORS
                   MEDIANS OF FORECASTER PREDICTIONS
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	NUMBER OF FORECASTERS	ACTUAL 2023 Q3	FORECAST 2023 Q4	2024 Q1	2024 Q2	2024 Q3	2024 Q4	ACTUAL 2022 ANNUAL	FORECAST 2023 ANNUAL	2024 ANNUAL	2025 ANNUAL	2026 ANNUAL
1. GROSS DOMESTIC PRODUCT (GDP) ($ BILLIONS)	31	27624	27904	28124	28414	28697	28970	25744	27352	28570	N.A.	N.A.
2. GDP PRICE INDEX (2017=100)	30	122.85	123.70	124.43	125.09	125.78	126.50	118.00	122.39	125.40	N.A.	N.A.
3. CORPORATE PROFITS AFTER TAXES ($ BILLIONS)	20	N.A.	2654.1	2685.2	2685.8	2702.1	2721.2	2666.3	2615.6	2708.4	N.A.	N.A.
4. UNEMPLOYMENT RATE (PERCENT)	33	3.7	3.9	4.0	4.0	4.2	4.2	3.6	3.7	4.1	4.2	4.0
5. NONFARM PAYROLL EMPLOYMENT (THOUSANDS)	26	156574	157020	157217	157511	157756	158112	152625	156183	157623	N.A.	N.A.
6. INDUSTRIAL PRODUCTION (2017=100)	25	103.4	103.6	103.5	103.8	104.0	104.2	102.6	103.0	103.9	N.A.	N.A.
7. NEW PRIVATE HOUSING STARTS (ANNUAL RATE, MILLIONS)	28	1.36	1.35	1.34	1.35	1.37	1.38	1.55	1.39	1.36	N.A.	N.A.
8. 3-MONTH TREASURY BILL RATE (PERCENT)	32	5.29	5.40	5.32	5.27	5.01	4.75	2.02	5.10	5.08	3.92	3.01
9. MOODY'S AAA CORP BOND YIELD * (PERCENT)	18	N.A.	5.48	5.39	5.24	5.08	5.02	N.A.	4.88	5.14	N.A.	N.A.
10. MOODY'S BAA CORP BOND YIELD * (PERCENT)	18	N.A.	6.41	6.35	6.26	6.25	6.15	N.A.	5.93	6.25	N.A.	N.A.
11. 10-YEAR TREASURY BOND YIELD (PERCENT)	30	4.15	4.59	4.47	4.39	4.21	4.03	2.95	4.00	4.30	4.02	3.95
12. REAL GDP (BILLIONS, CHAIN WEIGHTED)	34	22492	22565	22610	22685	22767	22862	21822	22348	22731	23132	23620
13. TOTAL CONSUMPTION EXPENDITURE (BILLIONS, CHAIN WEIGHTED)	29	15494.2	15555.9	15612.8	15667.5	15736.1	15797.5	15090.8	15426.1	15705.8	N.A.	N.A.
14. NONRESIDENTIAL FIXED INVESTMENT (BILLIONS, CHAIN WEIGHTED)	28	3272.1	3286.4	3296.0	3307.3	3322.8	3335.4	3131.6	3260.0	3316.5	N.A.	N.A.
15. RESIDENTIAL FIXED INVESTMENT (BILLIONS, CHAIN WEIGHTED)	27	734.0	730.9	725.5	723.0	735.1	744.9	822.6	730.3	733.3	N.A.	N.A.
16. FEDERAL GOVERNMENT C & I (BILLIONS, CHAIN WEIGHTED)	28	1488.9	1495.3	1502.3	1506.7	1516.0	1523.7	1420.9	1478.5	1512.8	N.A.	N.A.
17. STATE AND LOCAL GOVT C & I (BILLIONS, CHAIN WEIGHTED)	28	2344.0	2355.7	2365.0	2374.8	2386.8	2397.0	2249.6	2329.7	2381.1	N.A.	N.A.
18. CHANGE IN PRIVATE INVENTORIES (BILLIONS, CHAIN WEIGHTED)	26	80.6	35.8	28.7	34.0	35.5	35.0	128.1	39.6	35.0	N.A.	N.A.
19. NET EXPORTS (BILLIONS, CHAIN WEIGHTED)	27	-937.7	-934.9	-945.0	-951.4	-955.6	-961.9	-1051.0	-934.0	-953.5	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 2023.

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                           TABLE TWO
                 MAJOR MACROECONOMIC INDICATORS
                PERCENTAGE CHANGES AT ANNUAL RATES


                    NUMBER  Q3 2023  Q4 2023  Q1 2024  Q2 2024  Q3 2024   2022     2023     2024     2025
                      OF      TO       TO       TO       TO       TO       TO       TO       TO       TO
                   FORECASTERS Q4 2023  Q1 2024  Q2 2024  Q3 2024  Q4 2024   2023     2024     2025     2026
_____

 1. GROSS DOMESTIC PRODUCT (GDP)   31     4.1      3.2      4.2      4.0      3.9      6.2      4.5     N.A.     N.A.
       ($ BILLIONS)

 2. GDP PRICE INDEX                30     2.8      2.4      2.1      2.2      2.3      3.7      2.5     N.A.     N.A.
       (2017=100)

 3. CORPORATE PROFITS AFTER TAXES  20     5.1      4.8      0.1      2.4      2.9     -1.9      3.5     N.A.     N.A.
       ($ BILLIONS)

 4. UNEMPLOYMENT RATE              33     0.2      0.1      0.0      0.1      0.0      0.1      0.4      0.1     -0.2
       (PERCENT)

 5. NONFARM PAYROLL EMPLOYMENT
       (PERCENT CHANGE)            26     1.1      0.5      0.7      0.6      0.9      2.3      0.9     N.A.     N.A.
       (AVG MONTHLY CHANGE)        26   148.8     65.7     97.9     81.5    118.8    296.5    120.0    N.A.     N.A.

 6. INDUSTRIAL PRODUCTION          25     0.7     -0.2      0.8      1.0      0.9      0.4      0.9     N.A.     N.A.
       (2017=100)

 7. NEW PRIVATE HOUSING STARTS     28    -2.6     -2.6      2.5      7.0      3.3    -10.6     -1.8     N.A.     N.A.
       (ANNUAL RATE, MILLIONS)

 8. 3-MONTH TREASURY BILL RATE     32     0.11    -0.08    -0.05    -0.26    -0.27     3.08    -0.02    -1.16    -0.91
       (PERCENT)

 9. MOODY'S AAA CORP BOND YIELD *  18    N.A.     -0.08    -0.15    -0.16    -0.06    N.A.      0.27    N.A.     N.A.
       (PERCENT)

10. MOODY'S BAA CORP BOND YIELD *  18    N.A.     -0.06    -0.09    -0.01    -0.09    N.A.      0.31    N.A.     N.A.
       (PERCENT)

11. 10-YEAR TREASURY BOND YIELD    30     0.44    -0.12    -0.08    -0.18    -0.18     1.05     0.30    -0.28    -0.07
       (PERCENT)

12. REAL GDP                       34     1.3      0.8      1.3      1.5      1.7      2.4      1.7      1.8      2.1
       (BILLIONS, CHAIN WEIGHTED)

13. TOTAL CONSUMPTION EXPENDITURE  29     1.6      1.5      1.4      1.8      1.6      2.2      1.8     N.A.     N.A.
       (BILLIONS, CHAIN WEIGHTED)

14. NONRESIDENTIAL FIXED INVESTMENT 28    1.8      1.2      1.4      1.9      1.5      4.1      1.7     N.A.     N.A.
       (BILLIONS, CHAIN WEIGHTED)

15. RESIDENTIAL FIXED INVESTMENT   27    -1.7     -2.9     -1.4      6.8      5.5    -11.2      0.4     N.A.     N.A.
       (BILLIONS, CHAIN WEIGHTED)

16. FEDERAL GOVERNMENT C & I        28    1.7      1.9      1.2      2.5      2.0      4.1      2.3     N.A.     N.A.
       (BILLIONS, CHAIN WEIGHTED)

17. STATE AND LOCAL GOVT C & I      28    2.0      1.6      1.7      2.0      1.7      3.6      2.2     N.A.     N.A.
       (BILLIONS, CHAIN WEIGHTED)

18. CHANGE IN PRIVATE INVENTORIES   26  -44.8     -7.1      5.3      1.5     -0.5    -88.5     -4.6     N.A.     N.A.
       (BILLIONS, CHAIN WEIGHTED)

19. NET EXPORTS                     27    2.8    -10.1     -6.4     -4.1     -6.4    117.0    -19.6     N.A.     N.A.
       (BILLIONS, CHAIN WEIGHTED)
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  * 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 2023.

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                            TABLE THREE
                    MAJOR PRICE INDICATORS
                MEDIANS OF FORECASTER PREDICTIONS
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	NUMBER OF FORECASTERS	ACTUAL 2023 Q3	FORECAST(Q/Q)					ACTUAL 2022 ANNUAL	FORECAST(Q4/Q4)		
			2023 Q4	2024 Q1	2024 Q2	2024 Q3	2024 Q4		2023 ANNUAL	2024 ANNUAL	2025 ANNUAL
1. CONSUMER PRICE INDEX (ANNUAL RATE)	31	3.6	3.3	2.8	2.6	2.5	2.4	7.1	3.3	2.5	2.3
2. CORE CONSUMER PRICE INDEX (ANNUAL RATE)	31	2.8	3.0	2.8	2.6	2.5	2.4	6.0	3.9	2.6	2.3
3. PCE PRICE INDEX (ANNUAL RATE)	31	2.9	2.9	2.5	2.5	2.3	2.3	5.9	3.1	2.4	2.1
4. CORE PCE PRICE INDEX (ANNUAL RATE)	31	2.4	2.7	2.7	2.4	2.3	2.2	5.1	3.5	2.4	2.1

Source: Research Department, Federal Reserve Bank of Philadelphia. Survey of Professional Forecasters, Fourth Quarter 2023.

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                        TABLE FOUR
                       YIELD SPREADS
              MEDIANS OF FORECASTER PREDICTIONS
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	NUMBER OF FORECASTERS	ACTUAL 2023 Q3	FORECAST 2023 Q4	FORECAST 2024 Q1	FORECAST 2024 Q2	FORECAST 2024 Q3	FORECAST 2024 Q4	ACTUAL 2022 ANNUAL	FORECAST 2023 ANNUAL	FORECAST 2024 ANNUAL	FORECAST 2025 ANNUAL	FORECAST 2026 ANNUAL
1. TBOND MINUS TBILL (PERCENTAGE POINTS)	29	-1.14	-0.85	-0.90	-0.92	-0.73	-0.47	0.93	-1.10	-0.81	-0.02	0.75
2. AAA MINUS TBOND (PERCENTAGE POINTS)	18	N.A.	0.84	0.89	0.90	0.92	0.98	N.A.	0.87	0.92	N.A.	N.A.
3. BAA MINUS TBOND (PERCENTAGE POINTS)	18	N.A.	1.85	1.90	1.95	2.05	2.00	N.A.	1.93	2.00	N.A.	N.A.
4. BAA MINUS AAA (PERCENTAGE POINTS)	18	N.A.	1.02	1.05	1.06	1.07	1.04	N.A.	1.06	1.05	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 2023.

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                      TABLE FIVE
     ESTIMATED PROBABILITY OF DECLINE IN REAL GDP
```

ESTIMATED PROBABILITY (CHANCES IN 100)	Q3 2023 TO Q4 2023	Q4 2023 TO Q1 2024	Q1 2024 TO Q2 2024	Q2 2024 TO Q3 2024	Q3 2024 TO Q4 2024
			NUMBER OF FORECASTERS		
10 OR LESS	6	2	1	2	3
11 TO 20	4	3	2	2	2
21 TO 30	4	6	10	8	6
31 TO 40	5	6	4	5	9
41 TO 50	3	3	2	5	3
51 TO 60	2	1	3	1	0
61 TO 70	0	1	0	3	3
71 TO 80	1	2	3	0	0
81 TO 90	0	1	1	0	0
91 AND OVER	1	1	0	0	0
NOT REPORTING	8	8	8	8	8

MEAN AND MEDIAN

MEDIAN PROBABILITY	30.00	35.00	32.50	35.00	35.00
MEAN PROBABILITY	31.75	40.86	40.19	36.75	34.66

Note: Total number of forecasters reporting is 26.

Source: Research Department, Federal Reserve Bank of Philadelphia.
        Survey of Professional Forecasters, Fourth Quarter 2023.

```
                           TABLE SIX
                        MEAN PROBABILITIES


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


                         2023       2024       2025       2026
                       _____   _____   _____   _____


    15.0 PERCENT OR MORE    0.04       0.15       0.15       0.15
    12.0 TO 14.9 PERCENT    0.02       0.10       0.11       0.10
    10.0 TO 11.9 PERCENT    0.02       0.15       0.15       0.30
     8.0 TO  9.9 PERCENT    0.02       0.19       0.54       0.64
     7.0 TO  7.9 PERCENT    0.26       0.71       1.52       1.90
     6.0 TO  6.9 PERCENT    0.26       2.12       2.85       4.29
     5.0 TO  5.9 PERCENT    1.84      11.03      13.01      14.33
     4.0 TO  4.9 PERCENT   14.72      50.88      44.63      42.62
     3.0 TO  3.9 PERCENT   80.83      32.39      34.23      33.71
    LESS THAN 3.0 PERCENT   1.96       2.28       2.80       1.98


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


                       2022-2023  2023-2024  2024-2025  2025-2026
                       _____   _____   _____   _____


    16.0 PERCENT OR MORE    0.00       0.00       0.00       0.00
    10.0 TO 15.9 PERCENT    0.00       0.01       0.00       0.01
     7.0 TO  9.9 PERCENT    0.00       0.09       0.06       0.41
     4.0 TO  6.9 PERCENT    1.39       2.69       3.36       5.06
     2.5 TO  3.9 PERCENT   30.53      18.41      24.25      24.45
     1.5 TO  2.4 PERCENT   55.17      36.09      39.92      39.07
     0.0 TO  1.4 PERCENT   10.74      32.55      23.71      22.35
    -3.0 TO -0.1 PERCENT    2.14       9.45       8.08       7.66
    -6.0 TO -3.1 PERCENT    0.01       0.62       0.44       0.78
   -12.0 TO -6.1 PERCENT    0.00       0.08       0.17       0.19
   LESS THAN -12.0 PERCENT  0.00       0.00       0.00       0.00


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


                       2022-2023  2023-2024
                       _____   _____


     4.0 PERCENT OR MORE   19.53       5.85
     3.5 TO 3.9 PERCENT    50.97       6.34
     3.0 TO 3.4 PERCENT    14.78      12.88
     2.5 TO 2.9 PERCENT     4.08      23.16
     2.0 TO 2.4 PERCENT     5.92      33.87
     1.5 TO 1.9 PERCENT     2.90      11.56
     1.0 TO 1.4 PERCENT     1.26       3.98
     0.5 TO 0.9 PERCENT     0.49       1.57
     0.0 TO 0.4 PERCENT     0.05       0.67
    LESS THAN 0.0 PERCENT   0.02       0.13


        Source: Research Department, Federal Reserve Bank of Philadelphia.
              Survey of Professional Forecasters, Fourth Quarter 2023.
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TABLE SEVEN
MEAN PROBABILITY OF CORE CPI AND CORE PCE INFLATION (Q4/Q4)

MEAN PROBABILITY ATTACHED TO CORE CPI INFLATION:

	22Q4 TO 23Q4	23Q4 TO 24Q4
4.0 PERCENT OR MORE	26.91	4.39
3.5 TO 3.9 PERCENT	39.98	6.76
3.0 TO 3.4 PERCENT	24.68	16.74
2.5 TO 2.9 PERCENT	7.52	29.18
2.0 TO 2.4 PERCENT	0.60	25.61
1.5 TO 1.9 PERCENT	0.10	9.67
1.0 TO 1.4 PERCENT	0.06	3.62
0.5 TO 0.9 PERCENT	0.04	2.99
0.0 TO 0.4 PERCENT	0.04	0.54
LESS THAN 0.0 PERCENT	0.06	0.49

MEAN PROBABILITY ATTACHED TO CORE PCE INFLATION:

	22Q4 TO 23Q4	23Q4 TO 24Q4
4.0 PERCENT OR MORE	12.90	2.17
3.5 TO 3.9 PERCENT	28.14	5.20
3.0 TO 3.4 PERCENT	45.42	15.83
2.5 TO 2.9 PERCENT	9.68	28.54
2.0 TO 2.4 PERCENT	2.77	29.92
1.5 TO 1.9 PERCENT	0.85	10.35
1.0 TO 1.4 PERCENT	0.10	4.21
0.5 TO 0.9 PERCENT	0.04	2.60
0.0 TO 0.4 PERCENT	0.04	0.64
LESS THAN 0.0 PERCENT	0.06	0.55

Source: Research Department, Federal Reserve Bank of Philadelphia.
Survey of Professional Forecasters, Fourth Quarter 2023.

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



        ANNUAL AVERAGE OVER THE NEXT 5 YEARS: 2023-2027
        ================================================

        CPI INFLATION RATE              PCE INFLATION RATE
        ------------------------        ------------------------
        MINIMUM          1.68           MINIMUM          1.60
        LOWER QUARTILE   2.44           LOWER QUARTILE   2.30
        MEDIAN           2.60           MEDIAN           2.46
        UPPER QUARTILE   2.73           UPPER QUARTILE   2.60
        MAXIMUM          3.38           MAXIMUM          3.30
        MEAN             2.62           MEAN             2.42
        STD. DEVIATION   0.36           STD. DEVIATION   0.31
        N                  26           N                  25
        MISSING             8           MISSING             9


        ANNUAL AVERAGE OVER THE FOLLOWING 5 YEARS: 2028-2032
        ====================================================

        CPI INFLATION RATE              PCE INFLATION RATE
        ------------------------        ------------------------
        MINIMUM          1.80           MINIMUM          1.50
        LOWER QUARTILE   2.10           LOWER QUARTILE   1.90
        MEDIAN           2.23           MEDIAN           2.00
        UPPER QUARTILE   2.30           UPPER QUARTILE   2.20
        MAXIMUM          2.90           MAXIMUM          2.50
        MEAN             2.25           MEAN             2.04
        STD. DEVIATION   0.26           STD. DEVIATION   0.24
        N                  25           N                  25
        MISSING             9           MISSING             9


        ANNUAL AVERAGE OVER THE NEXT 10 YEARS: 2023-2032
        ================================================

        CPI INFLATION RATE              PCE INFLATION RATE
        ------------------------        ------------------------
        MINIMUM          1.89           MINIMUM          1.67
        LOWER QUARTILE   2.30           LOWER QUARTILE   2.10
        MEDIAN           2.40           MEDIAN           2.22
        UPPER QUARTILE   2.56           UPPER QUARTILE   2.36
        MAXIMUM          3.10           MAXIMUM          2.60
        MEAN             2.43           MEAN             2.23
        STD. DEVIATION   0.26           STD. DEVIATION   0.21
        N                  25           N                  25
        MISSING             9           MISSING             9
```

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 2023.