SURVEY OF PROFESSIONAL FORECASTERS

Release Date: August 11, 2023

THIRD QUARTER 2023

Forecasters Make Upward Revisions to Near-Term Growth and Job Gains
The U.S. economy for the next three quarters looks stronger now than it did three months ago, according to 37 forecasters surveyed by the Federal Reserve Bank of Philadelphia. The panel predicts real GDP will grow at an annual rate of 1.9 percent this quarter, up from the prediction of 0.6 percent in the last survey. Over the next two quarters, the forecasters also see higher output growth than they predicted previously. Using the annual-average over annual-average computation, the forecasters expect real GDP to grow at an annual rate of 2.1 percent in 2023 and 1.3 percent in 2024. These annual projections are higher than the previous estimates of three months ago.

Downward revisions to the projections for the unemployment rate accompany the upward revisions to growth. Although the forecasters predict the unemployment rate will increase from 3.6 percent this quarter to 4.0 percent in the second quarter of 2024, these predictions mark downward revisions from those of the previous survey. On an annual-average basis, the panelists expect the unemployment rate to average 3.6 percent in 2023, compared with 3.7 percent in the previous survey. The annual-average projections beyond 2023 are also lower than those of the last survey.

On the employment front, the forecasters revised upward their estimate for job growth over the next four quarters. The projections for the annual-average level of nonfarm payroll employment suggest job gains at a monthly rate of 288,600 in 2023 and 94,800 in 2024. (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:Q3	0.6	1.9	3.8	3.6	43.8	168.6
2023:Q4	-0.0	1.2	4.0	3.7	25.6	103.7
2024:Q1	1.0	1.1	4.1	3.9	37.2	56.5
2024:Q2	2.5	1.0	4.2	4.0	22.7	78.0
2024:Q3	N.A.	1.3	N.A.	4.1	N.A.	77.9
Annual data (projections are based on annual-average levels):						
2023	1.3	2.1	3.7	3.6	257.5	288.6
2024	1.0	1.3	4.3	4.0	56.1	94.8
2025	2.4	2.1	4.4	4.2	N.A.	N.A.
2026	2.3	1.7	4.3	4.1	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. The forecasters have assigned a higher probability than they assigned in the last survey that growth will be 1.5 percent or higher over each of the next four years, from 2023 to 2026.
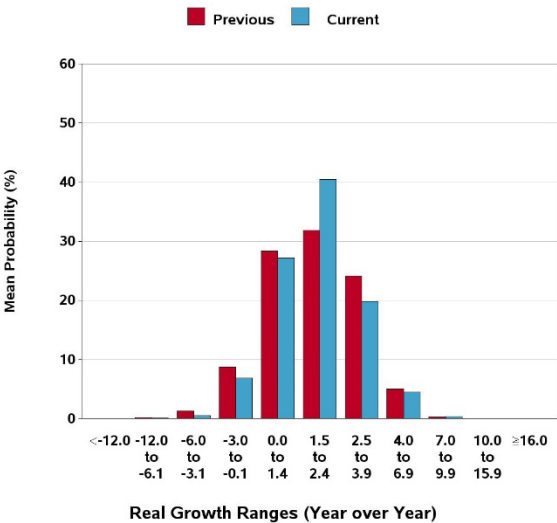
Mean Probabilities for Real GDP Growth in 2023
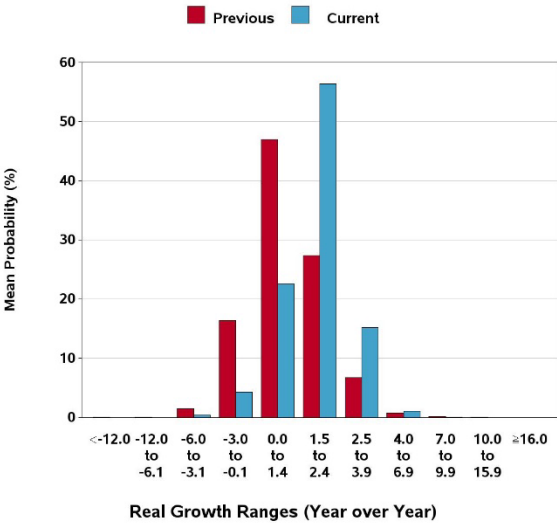
Mean Probabilities for Real GDP Growth in 2024
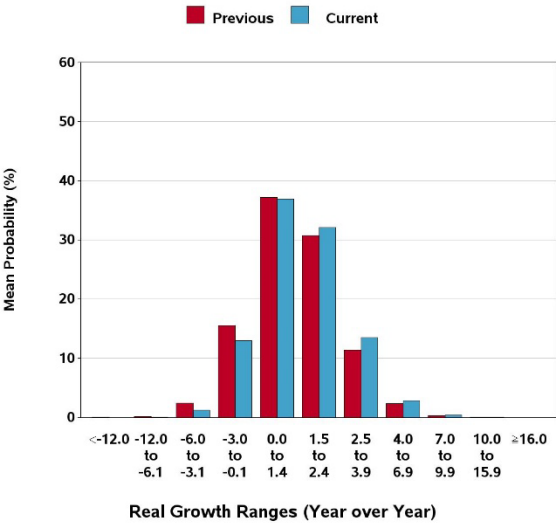
Mean Probabilities for Real GDP Growth in 2025

Mean Probabilities for Real GDP Growth in 2026

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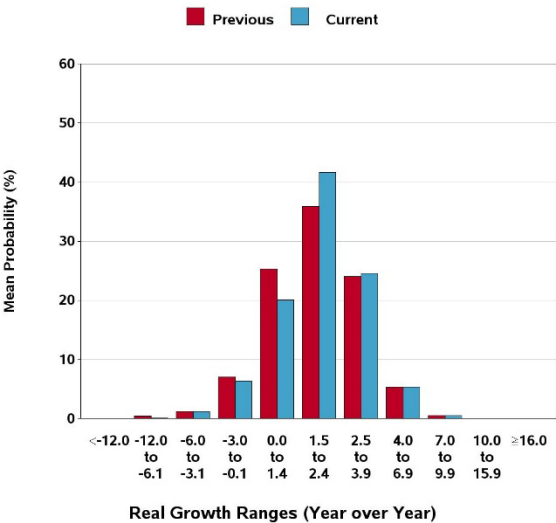
The forecasters' density projections for unemployment, shown below, shed light on uncertainty about the labor market over the next four years. Each chart presents the forecasters' current and previous estimates of the probability that unemployment will fall into each of 10 ranges. Over each of the following four years, 2023 to 2026, the forecasters see a higher probability than they predicted three months ago that unemployment will fall into the range of 3.0 percent to 3.9 percent.

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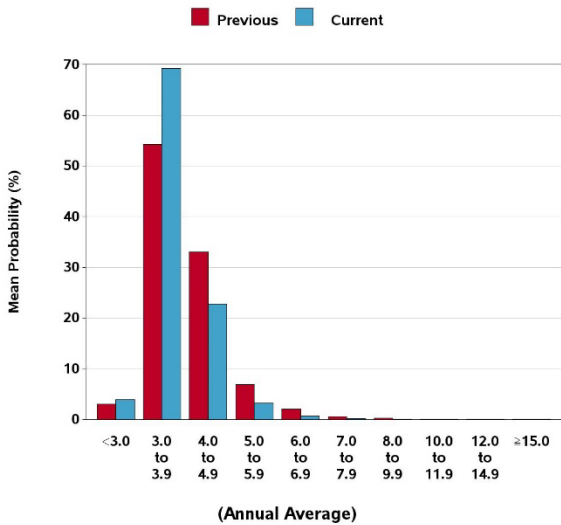
Mean Probabilities for Unemployment Rate in 2024
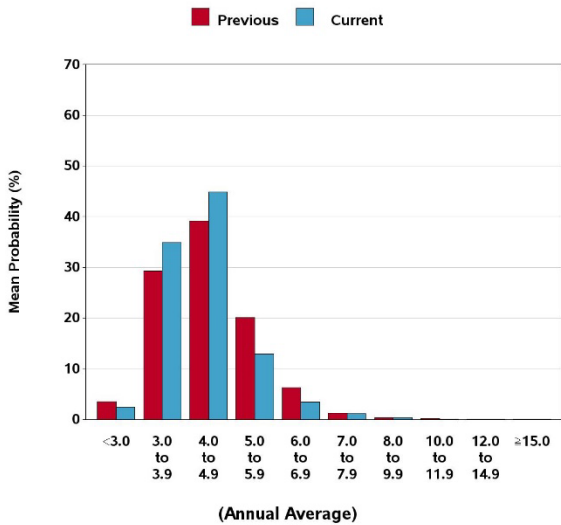
Mean Probabilities for Unemployment Rate in 2025
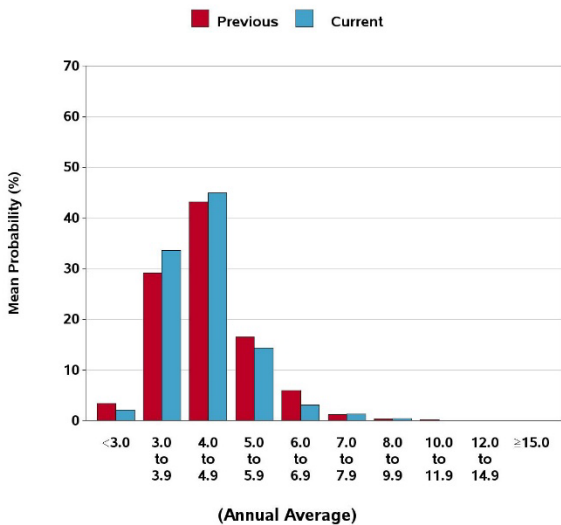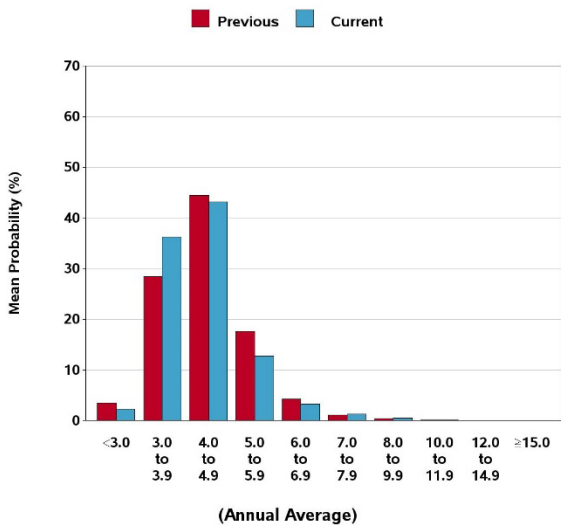

Mean Probabilities for Unemployment Rate in 2026

Forecasters Cut Their Estimates for Headline CPI and PCE Inflation in 2023
The forecasters expect headline CPI inflation in 2023 will average 3.1 percent, down from the prediction of 3.4 percent in the previous survey. Headline PCE inflation in 2023 will average 3.0 percent, also down from the previous estimate of 3.4 percent. Notably, the forecasters are leaving their estimates unchanged for the core measures of inflation in 2023.

Estimates for headline and core CPI and PCE inflation at most other annual forecast horizons beyond 2023 are little changed from the estimates of three months ago.

Over the next 10 years, 2023 to 2032, the forecasters expect headline CPI inflation to average 2.40 percent at an annual rate, slightly higher than the estimate of the previous survey. The corresponding estimate for 10-year annual-average PCE inflation is 2.20 percent, unchanged from the previous estimate.

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:Q3	3.2	3.1	3.6	3.6	3.2	2.7	3.3	3.3
2023:Q4	2.9	2.9	3.1	3.2	2.9	2.8	2.9	2.8
2024:Q1	2.7	2.6	3.0	2.9	2.5	2.5	2.5	2.6
2024:Q2	2.4	2.5	2.7	2.7	2.4	2.5	2.4	2.5
2024:Q3	N.A.	2.6	N.A.	2.6	N.A.	2.4	N.A.	2.3
Q4/Q4 Annual Averages								
2023	3.4	3.1	4.1	4.1	3.4	3.0	3.7	3.7
2024	2.5	2.5	2.7	2.7	2.4	2.4	2.3	2.4
2025	2.3	2.4	2.3	2.3	2.1	2.2	2.0	2.1
Long-Term Annual Averages								
2023-2027	2.50	2.68	N.A.	N.A.	2.42	2.50	N.A.	N.A.
2023-2032	2.36	2.40	N.A.	N.A.	2.20	2.20	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 slightly higher projection for long-term CPI inflation and the 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
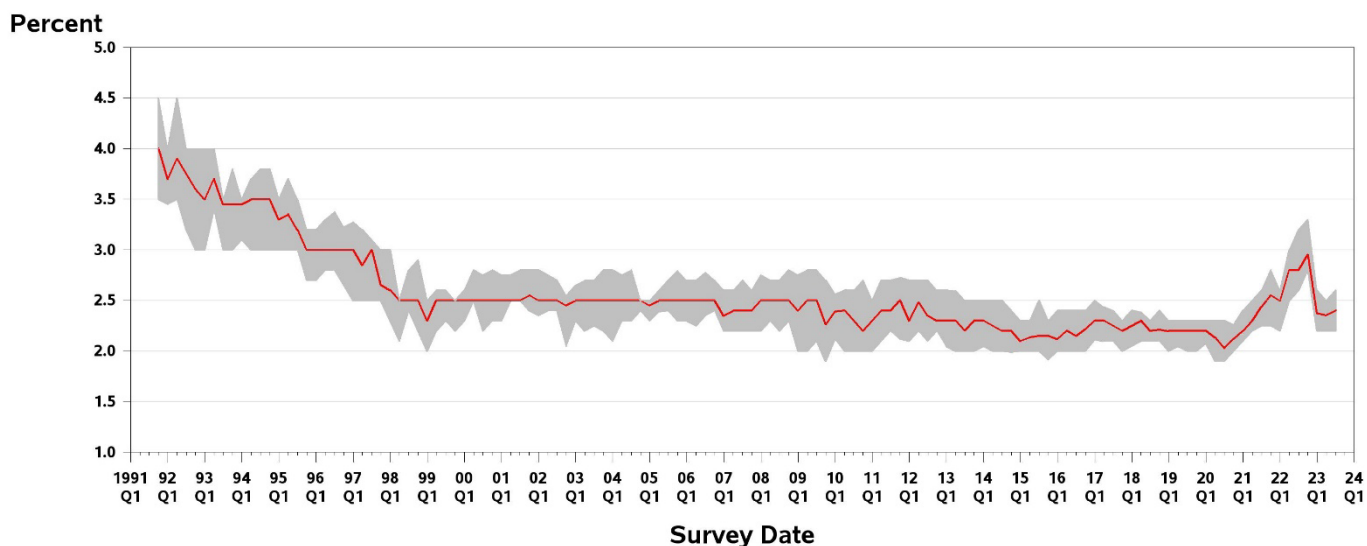
Projections for the 10-Year Annual-Average Rate of PCE Inflation
(Median and Interquartile Range)

Percent

Survey Date

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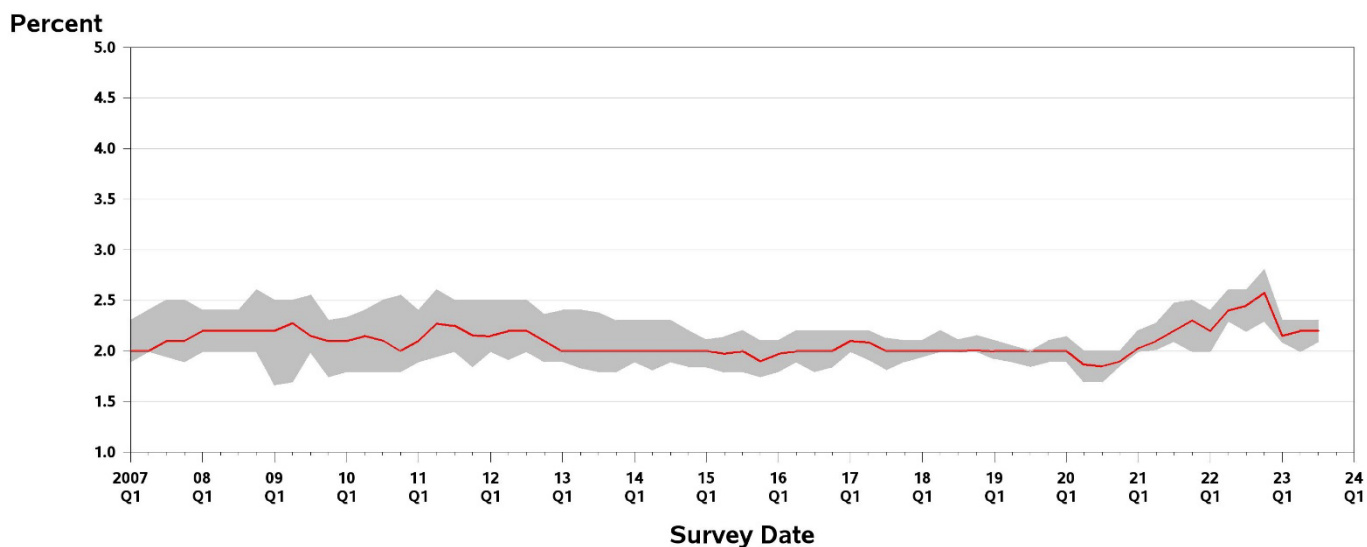
The figures below show the probabilities that the forecasters are assigning to each of 10 possible ranges for fourth-quarter over fourth-quarter core PCE inflation in 2023 and 2024. Notably, the forecasters have significantly lowered their estimates for the probability that core PCE inflation in 2023 will be 4.0 percent or more, compared with their predictions in the previous survey.

Mean Probabilities for Core PCE Inflation in 2023

Mean Probabilities for Core PCE Inflation in 2024

Lower Risk of a Negative Quarter
The forecasters have slashed their estimate of the risk of a downturn in real GDP this quarter to 21.7 percent, compared with the estimate of 45.2 percent in the survey of three months ago. The panelists have also made sizable downward revisions to their probability estimates for the following two quarters.

Risk of a Negative Quarter (%)
Survey Means

Quarterly data:	Previous	New
2023:Q3	45.2	21.7
2023:Q4	41.9	34.4
2024:Q1	39.3	37.6
2024:Q2	31.8	35.4
2024:Q3	N.A.	34.4

6

Natural Rate of Unemployment Estimated at 4.00 Percent

In third-quarter surveys, we ask the forecasters to provide their estimates of the natural rate of unemployment — the rate of unemployment that occurs when the economy reaches equilibrium. The forecasters estimate this rate at 4.00 percent. The table below shows, for each third-quarter survey since 1996, the percentage of respondents who use the natural rate in their forecasts and, for those who use it, the median estimate and the lowest and highest estimates. Forty-two percent of the 33 forecasters who answered the question report that they use the natural rate in their forecasts. The lowest estimate is 3.75 percent, and the highest estimate is 4.55 percent.

Median Estimates of the Natural Rate of Unemployment

Survey Date	Percentage Who Use the Natural Rate	Median Estimate (%)	Low (%)	High (%)
1996:Q3	62	5.65	5.00	6.00
1997:Q3	59	5.25	4.50	5.88
1998:Q3	45	5.30	4.50	5.80
1999:Q3	43	5.00	4.13	5.60
2000:Q3	48	4.50	4.00	5.00
2001:Q3	34	4.88	3.50	5.50
2002:Q3	50	5.10	3.80	5.50
2003:Q3	41	5.00	4.31	5.40
2004:Q3	46	5.00	4.00	5.50
2005:Q3	50	5.00	4.25	5.50
2006:Q3	53	4.95	4.00	5.50
2007:Q3	52	4.65	4.20	5.50
2008:Q3	48	5.00	4.00	5.50
2009:Q3	45	5.00	4.00	6.00
2010:Q3	50	5.78	4.50	6.80
2011:Q3	42	6.00	4.75	7.00
2012:Q3	49	6.00	4.75	7.00
2013:Q3	63	6.00	4.75	7.00
2014:Q3	65	5.50	4.50	6.70
2015:Q3	62	5.00	4.25	5.80
2016:Q3	56	4.80	4.50	5.50
2017:Q3	44	4.50	3.50	5.00
2018:Q3	34	4.30	3.80	4.60
2019:Q3	33	4.10	3.88	4.60
2020:Q3	48	4.10	3.50	6.00
2021:Q3	37	3.78	3.00	4.25
2022:Q3	30	4.10	3.50	4.50
2023:Q3	42	4.00	3.75	4.55

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

William Adams, Comerica Bank; **Ed Al-Hussainy** and **Alexander Spitz**, Columbia Threadneedle Investments; **Scott Anderson**, Bank of the West (BNP Paribas Group); **Robert J. Barbera**, Johns Hopkins University Center for Financial Economics; **Peter Bernstein**, RCF Economic and Financial Consulting, Inc.; **Wayne Best** and **Michael Brown**, Visa, Inc.; **Jay Bryson**, Wells Fargo; **Christine Chmura, Ph.D.**, and **Xiaobing Shuai, Ph.D.**, Chmura Economics & Analytics; **Gary Ciminero, CFA**, GLC Financial Economics; **Grant Collins**, AIM Research, LLC; **Rajeev Dhawan**, Georgia State University; **Bill Diviney**, ABN AMRO Bank NV; **Gabriel Ehrlich**, **Daniil Manaenkov**, **Tereza Ranosova**, and **Yinuo Zhang**, RSQE, University of Michigan; **Michael R. Englund**, Action Economics, LLC; **Michael Feroli**, J.P. Morgan; **Tani Fukui** and **Shan Ahmed**, MetLife Investment Management; **Sacha Gelfer**, Bentley University; **James Glassman**, Independent Economist; **Jan Hatzius**, Goldman Sachs; **Steve Kihm**, Citizens Utility Board of Wisconsin; **Oren Klachkin** and **Ryan Sweet**, Oxford Economics USA, Inc.; **Jack Kleinhenz**, Kleinhenz & Associates, Inc.; **Yaniv Konchitchki**, University of California, Berkeley; **Thomas Lam**, Sim Kee Boon Institute, Singapore Management University; **Brian Martin**, Australia New Zealand Bank (ANZ); **Robert McNab**, Old Dominion University; **R. Anthony Metz**, Pareto Optimal Economics; **R. M. Monaco**, TitanRM; **Joel L. Naroff**, Naroff Economic Advisors; **Nomura Securities International**; **Brendon Ogmundson**, BC Real Estate Association; **Perc Pineda, Ph.D.**, Plastics Industry Association; **Joel Prakken** and **Chris Varvares**, S&P Global Market Intelligence; **Jason Prole**, Capital Risk Management; **Michael Roberts**, **Dan Roberts**, and **Jeffrey Baldwin**, Roberts Capital Advisors, LLC; **Alfredo A. Romero**, North Carolina A&T State University; **Philip Rothman**, East Carolina University; **Allen Sinai** and **Boyang Tian**, Decision Economics, Inc.; **Sean Snaith**, University of Central Florida; **Stephen Stanley**, Santander US Capital Markets; **Charles Steindel**, Editor, NABE *Business Economics*; **Susan M. Sterne**, Economic Analysis Associates, Inc.; **Edward Sullivan**, Portland Cement Association; **James Sweeney**, Credit Suisse; **Jordan Vickers** and **Marie Dempsey**, Eaton Corporation; **Lawrence Werther**, Daiwa Capital Markets America; **Mark Zandi**, Moody's Analytics; **Ellen Zentner**, Morgan Stanley.

This is a partial list of participants. We also thank those who wish to remain anonymous.

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                              SUMMARY TABLE
                    SURVEY OF PROFESSIONAL FORECASTERS
                    MAJOR MACROECONOMIC INDICATORS
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	2023 Q3	2023 Q4	2024 Q1	2024 Q2	2024 Q3	2023	2024 (YEAR-OVER-YEAR)	2025	2026
PERCENT GROWTH AT ANNUAL RATES									
1. REAL GDP (BILLIONS, CHAIN WEIGHTED)	1.9	1.2	1.1	1.0	1.3	2.1	1.3	2.1	1.7
2. GDP PRICE INDEX (PERCENT CHANGE)	2.6	2.6	2.6	2.4	2.4	3.7	2.5	N.A.	N.A.
3. NOMINAL GDP ($ BILLIONS)	4.7	3.7	3.9	3.1	4.2	5.9	3.9	N.A.	N.A.
4. NONFARM PAYROLL EMPLOYMENT (PERCENT CHANGE)	1.3	0.8	0.4	0.6	0.6	2.3	0.7	N.A.	N.A.
(AVG MONTHLY CHANGE)	168.6	103.7	56.5	78.0	77.9	288.6	94.8	N.A.	N.A.
VARIABLES IN LEVELS									
5. UNEMPLOYMENT RATE (PERCENT)	3.6	3.7	3.9	4.0	4.1	3.6	4.0	4.2	4.1
6. 3-MONTH TREASURY BILL (PERCENT)	5.3	5.4	5.2	5.0	4.7	5.1	4.8	3.5	3.0
7. 10-YEAR TREASURY BOND (PERCENT)	4.0	3.9	3.8	3.7	3.7	3.8	3.7	3.6	3.7

	2023 Q3	2023 Q4	2024 Q1	2024 Q2	2024 Q3	2023	2024 (Q4-OVER-Q4)	2025
INFLATION INDICATORS								
8. CPI (ANNUAL RATE)	3.1	2.9	2.6	2.5	2.6	3.1	2.5	2.4
9. CORE CPI (ANNUAL RATE)	3.6	3.2	2.9	2.7	2.6	4.1	2.7	2.3
10. PCE (ANNUAL RATE)	2.7	2.8	2.5	2.5	2.4	3.0	2.4	2.2
11. CORE PCE (ANNUAL RATE)	3.3	2.8	2.6	2.5	2.3	3.7	2.4	2.1

Note: The figures on each line are medians of 37 forecasters.

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

SURVEY OF PROFESSIONAL FORECASTERS

Third 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 July 27, 2023; the tables do not reflect subsequent revisions to the data. All forecasts were received on or before August 8, 2023.

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                                TABLE ONE
                    MAJOR MACROECONOMIC INDICATORS
                    MEDIANS OF FORECASTER PREDICTIONS
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	NUMBER OF FORECASTERS	ACTUAL 2023 Q2	FORECAST 2023 Q3	FORECAST 2023 Q4	FORECAST 2024 Q1	FORECAST 2024 Q2	FORECAST 2024 Q3	ACTUAL 2022 ANNUAL	FORECAST 2023 ANNUAL	FORECAST 2024 ANNUAL	FORECAST 2025 ANNUAL	FORECAST 2026 ANNUAL
1. GROSS DOMESTIC PRODUCT (GDP) ($ BILLIONS)	34	26835	27142	27388	27649	27864	28155	25463	26967	28031	N.A.	N.A.
2. GDP PRICE INDEX (2012=100)	33	131.53	132.38	133.23	134.10	134.90	135.70	127.23	132.00	135.30	N.A.	N.A.
3. CORPORATE PROFITS AFTER TAXES ($ BILLIONS)	20	N.A.	2417.1	2405.1	2485.5	2430.9	2492.9	2478.9	2380.8	2478.7	N.A.	N.A.
4. UNEMPLOYMENT RATE (PERCENT)	36	3.6	3.6	3.7	3.9	4.0	4.1	3.6	3.6	4.0	4.2	4.1
5. NONFARM PAYROLL EMPLOYMENT (THOUSANDS)	30	155963	156444	156755	156924	157158	157392	152625	156089	157226	N.A.	N.A.
6. INDUSTRIAL PRODUCTION (2017=100)	28	102.8	102.9	102.8	102.7	102.9	103.3	102.6	102.7	103.3	N.A.	N.A.
7. NEW PRIVATE HOUSING STARTS (ANNUAL RATE, MILLIONS)	31	1.45	1.40	1.40	1.39	1.40	1.41	1.55	1.41	1.40	N.A.	N.A.
8. 3-MONTH TREASURY BILL RATE (PERCENT)	35	5.07	5.34	5.40	5.23	5.02	4.69	2.02	5.11	4.81	3.50	3.00
9. MOODY'S AAA CORP BOND YIELD * (PERCENT)	20	N.A.	4.84	4.93	4.91	4.90	4.79	N.A.	4.74	4.84	N.A.	N.A.
10. MOODY'S BAA CORP BOND YIELD * (PERCENT)	19	N.A.	5.95	6.00	6.00	5.95	5.91	N.A.	5.80	5.95	N.A.	N.A.
11. 10-YEAR TREASURY BOND YIELD (PERCENT)	34	3.59	3.96	3.90	3.80	3.70	3.70	2.95	3.77	3.69	3.60	3.67
12. REAL GDP (BILLIONS, CHAIN WEIGHTED)	37	20404	20500	20562	20617	20668	20735	20014	20435	20705	21145	21505
13. TOTAL CONSUMPTION EXPENDITURE (BILLIONS, CHAIN WEIGHTED)	31	14418.8	14479.0	14526.0	14565.7	14603.4	14660.0	14130.4	14443.8	14623.2	N.A.	N.A.
14. NONRESIDENTIAL FIXED INVESTMENT (BILLIONS, CHAIN WEIGHTED)	30	3049.1	3056.6	3072.1	3077.3	3089.8	3097.5	2944.8	3040.9	3092.1	N.A.	N.A.
15. RESIDENTIAL FIXED INVESTMENT (BILLIONS, CHAIN WEIGHTED)	29	564.9	563.5	563.4	566.2	569.0	573.4	643.1	565.5	571.6	N.A.	N.A.
16. FEDERAL GOVERNMENT C & I (BILLIONS, CHAIN WEIGHTED)	30	1396.2	1401.6	1406.6	1410.9	1416.0	1419.6	1355.3	1399.3	1419.0	N.A.	N.A.
17. STATE AND LOCAL GOVT C & I (BILLIONS, CHAIN WEIGHTED)	30	2110.7	2119.8	2128.0	2136.2	2141.6	2146.6	2051.2	2113.1	2144.4	N.A.	N.A.
18. CHANGE IN PRIVATE INVENTORIES (BILLIONS, CHAIN WEIGHTED)	29	9.3	25.0	25.1	26.3	27.2	34.4	125.0	16.5	31.5	N.A.	N.A.
19. NET EXPORTS (BILLIONS, CHAIN WEIGHTED)	30	-1205.5	-1215.9	-1214.7	-1222.6	-1233.6	-1237.1	-1356.7	-1211.1	-1232.5	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, Third Quarter 2023.

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                        TABLE TWO
              MAJOR MACROECONOMIC INDICATORS
            PERCENTAGE CHANGES AT ANNUAL RATES
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	NUMBER OF FORECASTERS	Q2 2023 TO Q3 2023	Q3 2023 TO Q4 2023	Q4 2023 TO Q1 2024	Q1 2024 TO Q2 2024	Q2 2024 TO Q3 2024	2022 TO 2023	2023 TO 2024	2024 TO 2025	2025 TO 2026
1. GROSS DOMESTIC PRODUCT (GDP) ($ BILLIONS)	34	4.7	3.7	3.9	3.1	4.2	5.9	3.9	N.A.	N.A.
2. GDP PRICE INDEX (2012=100)	33	2.6	2.6	2.6	2.4	2.4	3.7	2.5	N.A.	N.A.
3. CORPORATE PROFITS AFTER TAXES ($ BILLIONS)	20	1.6	-2.0	14.0	-8.5	10.6	-4.0	4.1	N.A.	N.A.
4. UNEMPLOYMENT RATE (PERCENT)	36	0.0	0.1	0.2	0.1	0.1	0.0	0.4	0.2	-0.1
5. NONFARM PAYROLL EMPLOYMENT (PERCENT CHANGE)	30	1.3	0.8	0.4	0.6	0.6	2.3	0.7	N.A.	N.A.
(AVG MONTHLY CHANGE)	30	168.6	103.7	56.5	78.0	77.9	288.6	94.8	N.A.	N.A.
6. INDUSTRIAL PRODUCTION (2017=100)	28	0.4	-0.2	-0.7	1.0	1.4	0.1	0.6	N.A.	N.A.
7. NEW PRIVATE HOUSING STARTS (ANNUAL RATE, MILLIONS)	31	-12.4	0.0	-2.0	0.6	5.6	-9.1	-0.7	N.A.	N.A.
8. 3-MONTH TREASURY BILL RATE (PERCENT)	35	0.27	0.06	-0.17	-0.21	-0.33	3.09	-0.31	-1.31	-0.50
9. MOODY'S AAA CORP BOND YIELD * (PERCENT)	20	N.A.	0.09	-0.02	-0.01	-0.11	N.A.	0.10	N.A.	N.A.
10. MOODY'S BAA CORP BOND YIELD * (PERCENT)	19	N.A.	0.05	0.00	-0.05	-0.04	N.A.	0.15	N.A.	N.A.
11. 10-YEAR TREASURY BOND YIELD (PERCENT)	34	0.37	-0.06	-0.10	-0.10	-0.00	0.82	-0.08	-0.09	0.07
12. REAL GDP (BILLIONS, CHAIN WEIGHTED)	37	1.9	1.2	1.1	1.0	1.3	2.1	1.3	2.1	1.7
13. TOTAL CONSUMPTION EXPENDITURE (BILLIONS, CHAIN WEIGHTED)	31	1.7	1.3	1.1	1.0	1.6	2.2	1.2	N.A.	N.A.
14. NONRESIDENTIAL FIXED INVESTMENT (BILLIONS, CHAIN WEIGHTED)	30	1.0	2.0	0.7	1.6	1.0	3.3	1.7	N.A.	N.A.
15. RESIDENTIAL FIXED INVESTMENT (BILLIONS, CHAIN WEIGHTED)	29	-1.0	-0.0	2.0	1.9	3.1	-12.1	1.1	N.A.	N.A.
16. FEDERAL GOVERNMENT C & I (BILLIONS, CHAIN WEIGHTED)	30	1.5	1.4	1.2	1.4	1.0	3.2	1.4	N.A.	N.A.
17. STATE AND LOCAL GOVT C & I (BILLIONS, CHAIN WEIGHTED)	30	1.7	1.6	1.6	1.0	0.9	3.0	1.5	N.A.	N.A.
18. CHANGE IN PRIVATE INVENTORIES (BILLIONS, CHAIN WEIGHTED)	29	15.7	0.1	1.2	1.0	7.2	-108.5	14.9	N.A.	N.A.
19. NET EXPORTS (BILLIONS, CHAIN WEIGHTED)	30	-10.4	1.2	-7.9	-11.0	-3.5	145.6	-21.5	N.A.	N.A.

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

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, Third Quarter 2023.

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                            TABLE THREE
                      MAJOR PRICE INDICATORS
                  MEDIANS OF FORECASTER PREDICTIONS
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	NUMBER OF FORECASTERS	ACTUAL 2023 Q2	FORECAST(Q/Q)						ACTUAL 2022 ANNUAL	FORECAST(Q4/Q4)		
			2023 Q3	2023 Q4	2024 Q1	2024 Q2	2024 Q3			2023 ANNUAL	2024 ANNUAL	2025 ANNUAL
1. CONSUMER PRICE INDEX (ANNUAL RATE)	36	2.7	3.1	2.9	2.6	2.5	2.6		7.1	3.1	2.5	2.4
2. CORE CONSUMER PRICE INDEX (ANNUAL RATE)	35	4.7	3.6	3.2	2.9	2.7	2.6		6.0	4.1	2.7	2.3
3. PCE PRICE INDEX (ANNUAL RATE)	35	2.6	2.7	2.8	2.5	2.5	2.4		5.7	3.0	2.4	2.2
4. CORE PCE PRICE INDEX (ANNUAL RATE)	35	3.8	3.3	2.8	2.6	2.5	2.3		4.8	3.7	2.4	2.1

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

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                                    TABLE FOUR
                                  YIELD SPREADS
                       MEDIANS OF FORECASTER PREDICTIONS
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	NUMBER OF FORECASTERS	ACTUAL 2023 Q2	FORECAST 2023 Q3	2023 Q4	2024 Q1	2024 Q2	2024 Q3	ACTUAL 2022 ANNUAL	FORECAST 2023 ANNUAL	2024 ANNUAL	2025 ANNUAL	2026 ANNUAL
1. TBOND MINUS TBILL (PERCENTAGE POINTS)	33	-1.48	-1.50	-1.46	-1.44	-1.15	-0.98	0.93	-1.33	-1.03	-0.06	0.61
2. AAA MINUS TBOND (PERCENTAGE POINTS)	20	N.A.	0.86	0.89	0.94	0.95	0.97	N.A.	0.91	0.90	N.A.	N.A.
3. BAA MINUS TBOND (PERCENTAGE POINTS)	19	N.A.	1.93	1.99	2.05	2.05	2.10	N.A.	1.98	2.10	N.A.	N.A.
4. BAA MINUS AAA (PERCENTAGE POINTS)	19	N.A.	1.05	1.05	1.05	1.08	1.05	N.A.	1.07	1.07	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, Third Quarter 2023.

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

MEAN AND MEDIAN

MEDIAN PROBABILITY	19.70	30.00	35.00	30.00	33.00
MEAN PROBABILITY	21.68	34.38	37.59	35.35	34.41

Note: Total number of forecasters reporting is 29.

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

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                          TABLE SIX
                       MEAN PROBABILITIES


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


                         2023        2024        2025        2026
                      _____   _____   _____   _____

 15.0 PERCENT OR MORE    0.02        0.02        0.00        0.00
 12.0 TO 14.9 PERCENT    0.02        0.02        0.00        0.00
 10.0 TO 11.9 PERCENT    0.02        0.02        0.00        0.14
  8.0 TO  9.9 PERCENT    0.09        0.31        0.48        0.57
  7.0 TO  7.9 PERCENT    0.14        1.14        1.30        1.35
  6.0 TO  6.9 PERCENT    0.62        3.36        3.11        3.34
  5.0 TO  5.9 PERCENT    3.24       12.92       14.37       12.79
  4.0 TO  4.9 PERCENT   22.74       44.88       44.95       43.21
  3.0 TO  3.9 PERCENT   69.24       34.93       33.63       36.31
 LESS THAN 3.0 PERCENT   3.87        2.40        2.17        2.28


              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        0.00        0.00        0.00
  7.0 TO  9.9 PERCENT    0.07        0.34        0.34        0.53
  4.0 TO  6.9 PERCENT    1.07        2.85        4.53        5.36
  2.5 TO  3.9 PERCENT   15.22       13.47       19.80       24.57
  1.5 TO  2.4 PERCENT   56.41       32.14       40.48       41.63
  0.0 TO  1.4 PERCENT   22.55       36.94       27.23       20.11
 -3.0 TO -0.1 PERCENT    4.31       12.99        6.93        6.41
 -6.0 TO -3.1 PERCENT    0.36        1.21        0.58        1.26
-12.0 TO -6.1 PERCENT    0.00        0.04        0.13        0.13
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   21.78        5.80
  3.5 TO 3.9 PERCENT    37.45        7.27
  3.0 TO 3.4 PERCENT    22.52       14.80
  2.5 TO 2.9 PERCENT    11.10       26.94
  2.0 TO 2.4 PERCENT     2.89       26.06
  1.5 TO 1.9 PERCENT     1.89       12.36
  1.0 TO 1.4 PERCENT     1.29        4.85
  0.5 TO 0.9 PERCENT     0.82        1.50
  0.0 TO 0.4 PERCENT     0.23        0.27
 LESS THAN 0.0 PERCENT    0.02        0.15


      Source: Research Department, Federal Reserve Bank of Philadelphia.
            Survey of Professional Forecasters, Third 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	39.47	8.82
3.5 TO 3.9 PERCENT	30.63	10.42
3.0 TO 3.4 PERCENT	14.73	17.51
2.5 TO 2.9 PERCENT	8.61	28.44
2.0 TO 2.4 PERCENT	4.59	21.88
1.5 TO 1.9 PERCENT	0.96	6.67
1.0 TO 1.4 PERCENT	0.35	2.90
0.5 TO 0.9 PERCENT	0.31	2.46
0.0 TO 0.4 PERCENT	0.28	0.58
LESS THAN 0.0 PERCENT	0.06	0.31

MEAN PROBABILITY ATTACHED TO CORE PCE INFLATION:

	22Q4 TO 23Q4	23Q4 TO 24Q4
4.0 PERCENT OR MORE	18.83	4.16
3.5 TO 3.9 PERCENT	35.35	8.45
3.0 TO 3.4 PERCENT	24.10	14.86
2.5 TO 2.9 PERCENT	12.08	31.08
2.0 TO 2.4 PERCENT	7.30	24.75
1.5 TO 1.9 PERCENT	1.33	9.51
1.0 TO 1.4 PERCENT	0.35	3.47
0.5 TO 0.9 PERCENT	0.31	2.64
0.0 TO 0.4 PERCENT	0.28	0.79
LESS THAN 0.0 PERCENT	0.06	0.29

Source: Research Department, Federal Reserve Bank of Philadelphia.
Survey of Professional Forecasters, Third 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           1.51          MINIMUM           1.32
        LOWER QUARTILE    2.50          LOWER QUARTILE    2.29
        MEDIAN            2.68          MEDIAN            2.50
        UPPER QUARTILE    2.90          UPPER QUARTILE    2.63
        MAXIMUM           3.75          MAXIMUM           3.50
        MEAN              2.68          MEAN              2.48
        STD. DEVIATION    0.44          STD. DEVIATION    0.44
        N                   29          N                   28
        MISSING              8          MISSING              9


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

        CPI INFLATION RATE              PCE INFLATION RATE
        ------------------------        ------------------------
        MINIMUM           1.50          MINIMUM           1.26
        LOWER QUARTILE    1.97          LOWER QUARTILE    1.90
        MEDIAN            2.10          MEDIAN            2.00
        UPPER QUARTILE    2.35          UPPER QUARTILE    2.20
        MAXIMUM           3.00          MAXIMUM           3.10
        MEAN              2.15          MEAN              2.02
        STD. DEVIATION    0.33          STD. DEVIATION    0.33
        N                   28          N                   27
        MISSING              9          MISSING             10


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

        CPI INFLATION RATE              PCE INFLATION RATE
        ------------------------        ------------------------
        MINIMUM           1.75          MINIMUM           1.53
        LOWER QUARTILE    2.20          LOWER QUARTILE    2.10
        MEDIAN            2.40          MEDIAN            2.20
        UPPER QUARTILE    2.60          UPPER QUARTILE    2.30
        MAXIMUM           3.10          MAXIMUM           3.20
        MEAN              2.42          MEAN              2.25
        STD. DEVIATION    0.30          STD. DEVIATION    0.32
        N                   28          N                   27
        MISSING              9          MISSING             10
```

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, Third Quarter 2023.