



SURVEY OF PROFESSIONAL FORECASTERS

Release Date: February 9, 2024

FIRST QUARTER 2024

Forecasters Predict Higher Output Growth and Brighter Labor Market in 2024

The near-term outlook for the U.S. economy looks 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 2.1 percent this quarter, up from the prediction of 0.8 percent in the last survey. On an annual-average over annual-average basis, the forecasters expect real GDP to increase 2.4 percent in 2024, up 0.7 percentage point from the estimate in the previous survey.

A downward revision to the path for the unemployment rate accompanies the outlook for growth. The forecasters predict the unemployment rate will increase from 3.8 percent this quarter to 4.0 percent in the fourth quarter of 2024. In the previous survey, the unemployment rate was forecast to rise from 4.0 percent to 4.2 percent over the same period. On an annual-average basis, the forecasters expect the unemployment rate to average 3.9 percent in 2024, marking a downward revision from the previous estimate of 4.1 percent.

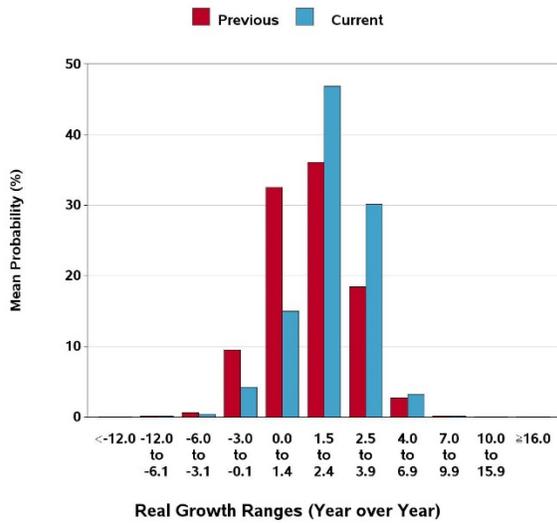
On the employment front, the forecasters see job gains in the current quarter at a rate of 235,800 per month. The employment projections for the current quarter and the following three quarters show upward revisions from those of the previous survey. The projections for the annual-average level of nonfarm payroll employment suggest job gains at a monthly rate of 190,000 in 2024, up from the previous estimate of 120,000. (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

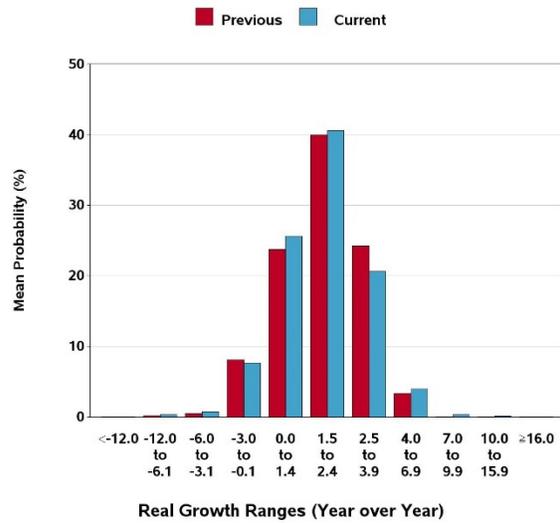
	Real GDP (%)		Unemployment Rate (%)		Payrolls (000s/month)	
	Previous	New	Previous	New	Previous	New
Quarterly data:						
2024:Q1	0.8	2.1	4.0	3.8	65.7	235.8
2024:Q2	1.3	1.5	4.0	3.9	97.9	119.8
2024:Q3	1.5	1.5	4.2	4.0	81.5	114.6
2024:Q4	1.7	1.7	4.2	4.0	118.8	122.4
2025:Q1	N.A.	1.8	N.A.	4.1	N.A.	133.5
Annual data (projections are based on annual-average levels):						
2024	1.7	2.4	4.1	3.9	120.0	190.0
2025	1.8	1.8	4.2	4.1	N.A.	111.7
2026	2.1	2.2	4.0	4.1	N.A.	N.A.
2027	N.A.	1.7	N.A.	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. Notably for 2024, the forecasters are substantially increasing their probability estimates from the previous survey for real GDP growth in the range of 1.5 percent to 3.9 percent.

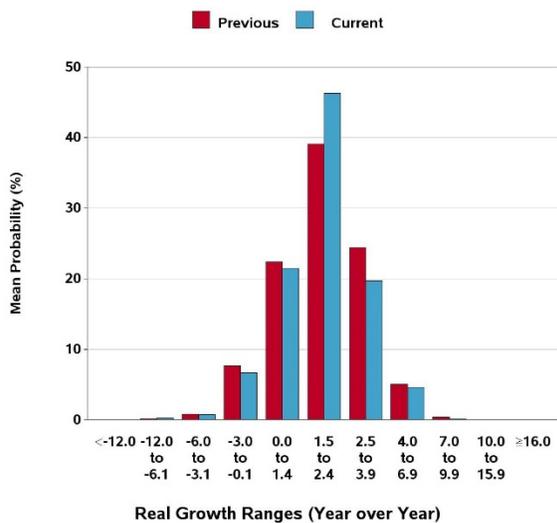
Mean Probabilities for Real GDP Growth in 2024



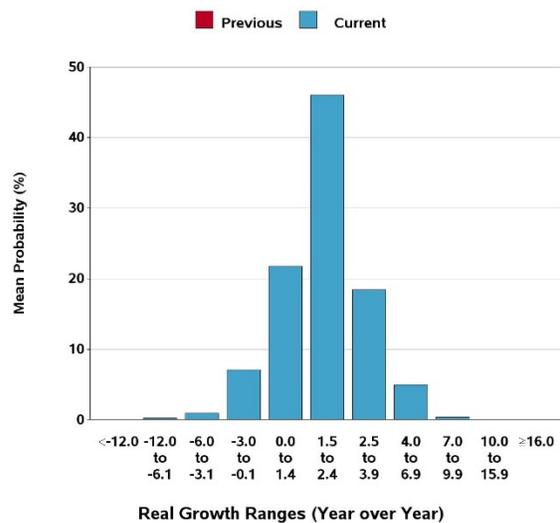
Mean Probabilities for Real GDP Growth in 2025



Mean Probabilities for Real GDP Growth in 2026

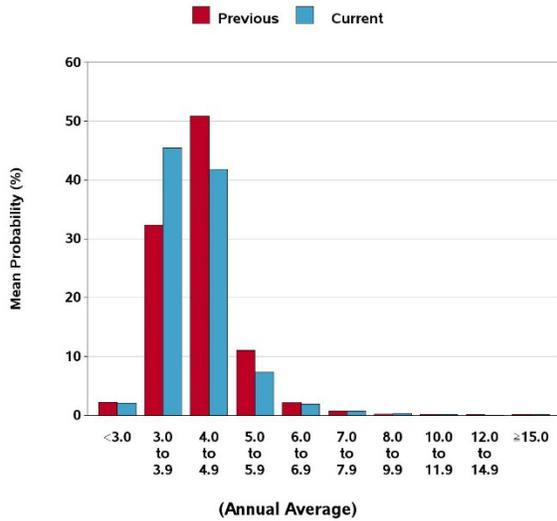


Mean Probabilities for Real GDP Growth in 2027

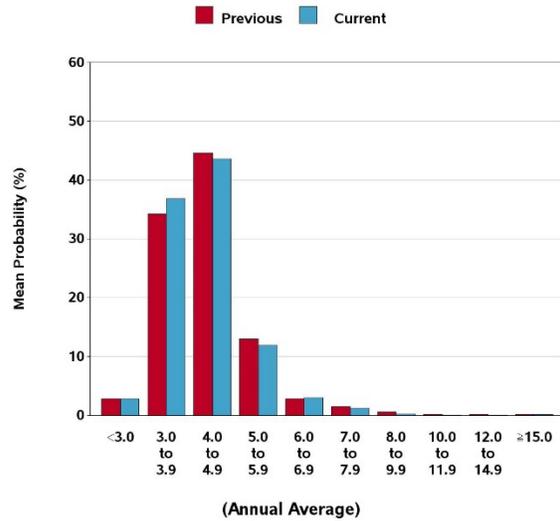


The forecasters' density projections for unemployment, shown below, shed light on uncertainty about the labor market over the next four years. Each chart presents the forecasters' current and previous estimates of the probability that unemployment will fall into each of 10 ranges. For 2024, the forecasters are raising their probability estimates from the previous survey for an unemployment rate in the range of 3.0 percent to 3.9 percent.

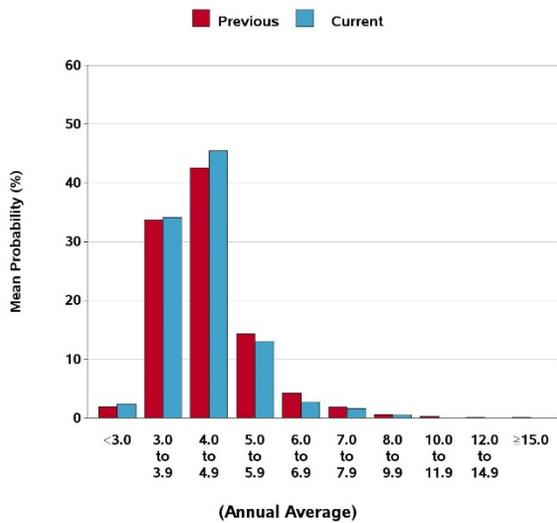
Mean Probabilities for Unemployment Rate in 2024



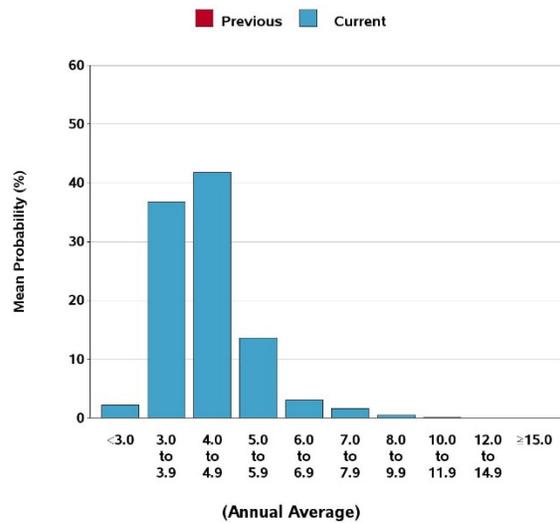
Mean Probabilities for Unemployment Rate in 2025



Mean Probabilities for Unemployment Rate in 2026



Mean Probabilities for Unemployment Rate in 2027



Forecasters Project Lower Near-Term Headline Inflation

The forecasters expect current-quarter headline CPI inflation will average 2.5 percent at an annual rate, down from their prediction of 2.8 percent in the previous survey. Headline PCE inflation over the current quarter will also be lower at an annual rate of 1.9 percent, down from the previous estimate of 2.5 percent. The predictions for current-quarter core CPI and core PCE inflation, on the other hand, are mixed. The forecasters predict lower core PCE inflation but higher core CPI inflation over the current quarter, compared with their predictions in the last survey.

Projections for both headline and core PCE inflation in 2024 will be lower at an annual rate of 2.1 percent, down from the previous predictions of 2.4 percent.

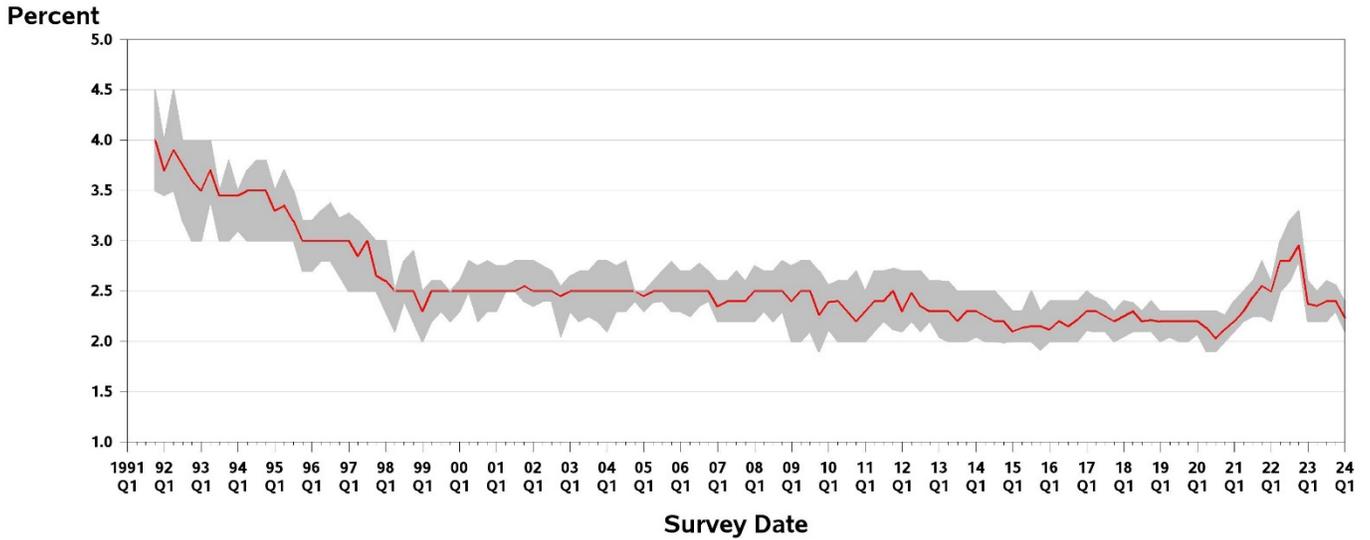
Over the next 10 years, 2024 to 2033, the forecasters predict headline CPI inflation will be an annual-average rate of 2.24 percent. The corresponding estimate for 10-year annual-average PCE inflation is 2.00 percent. These 10-year projections are 0.16 percentage point and 0.22 percentage point lower than those of the previous survey, which covered the 10-year horizon from 2023 to 2032.

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

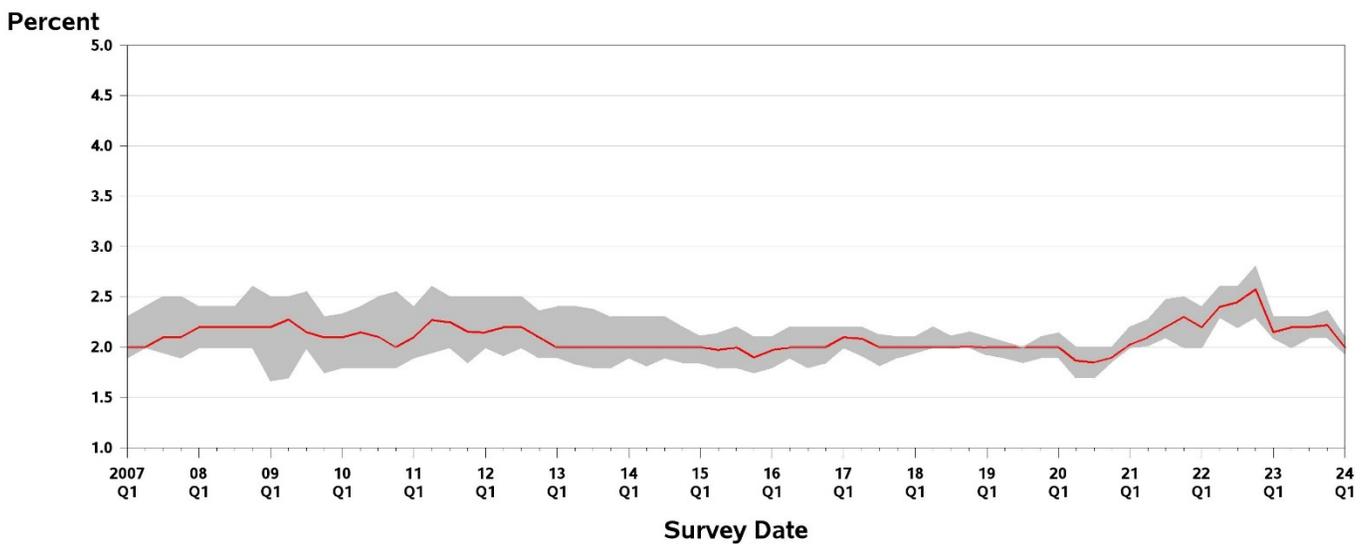
	Headline CPI		Core CPI		Headline PCE		Core PCE	
	Previous	Current	Previous	Current	Previous	Current	Previous	Current
Quarterly								
2024:Q1	2.8	2.5	2.8	3.1	2.5	1.9	2.7	2.1
2024:Q2	2.6	2.5	2.6	2.7	2.5	2.1	2.4	2.1
2024:Q3	2.5	2.4	2.5	2.6	2.3	2.1	2.3	2.1
2024:Q4	2.4	2.4	2.4	2.4	2.3	2.1	2.2	2.1
2025:Q1	N.A.	2.3	N.A.	2.4	N.A.	2.0	N.A.	2.1
Q4/Q4 Annual Averages								
2024	2.5	2.5	2.6	2.7	2.4	2.1	2.4	2.1
2025	2.3	2.2	2.3	2.3	2.1	2.0	2.1	2.0
2026	N.A.	2.3	N.A.	2.3	N.A.	2.0	N.A.	2.0
Long-Term Annual Averages								
2023-2027	2.60	N.A.	N.A.	N.A.	2.46	N.A.	N.A.	N.A.
2024-2028	N.A.	2.30	N.A.	N.A.	N.A.	2.05	N.A.	N.A.
2023-2032	2.40	N.A.	N.A.	N.A.	2.22	N.A.	N.A.	N.A.
2024-2033	N.A.	2.24	N.A.	N.A.	N.A.	2.00	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 lower 10-year inflation expectations in the current survey.

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

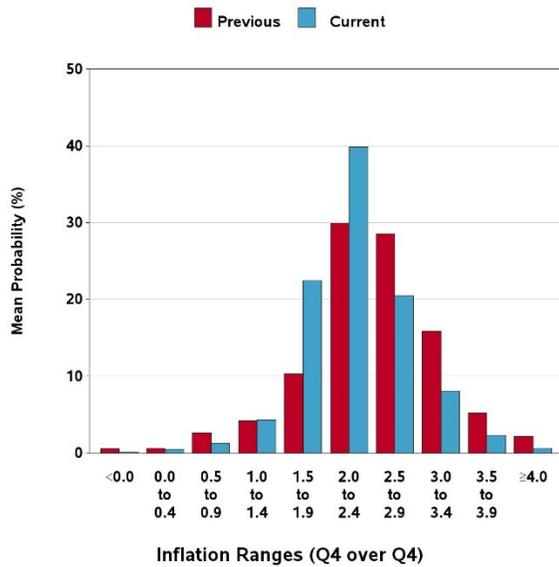


Projections for the 10-Year Annual-Average Rate of PCE Inflation (Median and Interquartile Range)

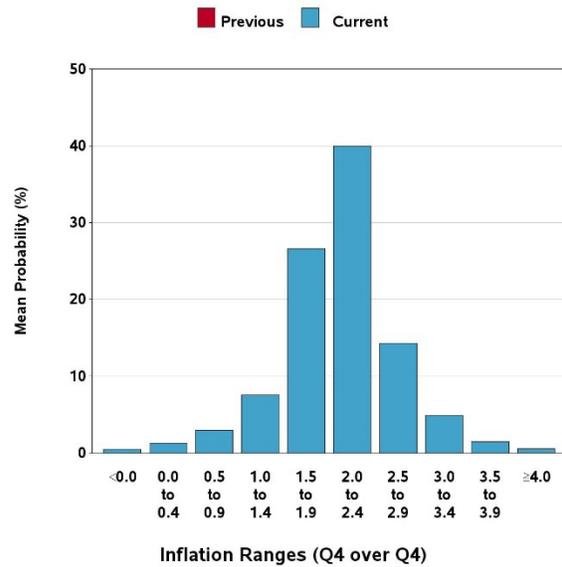


The figures below show the probabilities that the forecasters are assigning to each of 10 possible ranges for fourth-quarter over fourth-quarter core PCE inflation in 2024 and 2025. For 2024, the forecasters have significantly raised their estimates for the probability that core PCE inflation will be in the range of 1.5 percent to 2.4 percent, compared with their predictions in the last survey.

Mean Probabilities for Core PCE Inflation in 2024



Mean Probabilities for Core PCE Inflation in 2025



Lower Risk of a Contraction in Real GDP in 2024

The forecasters see the risk of a downturn in real GDP this quarter at 17.3 percent, down sharply from the previous estimate of 40.9 percent. Moreover, they have also lowered their probability estimates for negative growth for the following three quarters, compared with their previous estimates. The forecasters now predict a (nearly) one-in-four chance of a contraction in real GDP in each of the remaining three quarters in 2024.

Risk of a Negative Quarter (%)
Survey Means

Quarterly data:	Previous	New
2024:Q1	40.9	17.3
2024:Q2	40.2	23.9
2024:Q3	36.8	25.6
2024:Q4	34.7	25.6
2025:Q1	N.A.	25.2

Forecasters State Their Views on House Price Growth over the Next Two Years

In a special question in this survey, panelists were asked to provide their forecasts for fourth-quarter over fourth-quarter growth in house prices, as measured by several alternative indices. The panelists were allowed to choose their measure from a list of indices or to write in their own index. For each index of their choosing, the panelists provided forecasts for growth in 2024 and 2025.

Seventeen panelists answered the special question. Some panelists provided projections for more than one index. The table below provides a summary of the forecasters’ responses. The number of responses (N) is low for each index. The median estimates for the six house price indices listed in the table below range from 1.0 percent to 3.1 percent in 2024 and from -1.1 percent to 2.5 percent in 2025.

*Projections for Growth in Various Indices of House Prices
Q4/Q4, Percentage Points*

Index	2024 (Q4/Q4 Percent Change)			2025 (Q4/Q4 Percent Change)		
	N	Mean	Median	N	Mean	Median
S&P CoreLogic Case-Shiller: U.S. National	6	1.7	1.5	6	1.8	2.5
S&P CoreLogic Case-Shiller: Composite 10	2	3.1	3.1	2	-0.1	-0.1
S&P CoreLogic Case-Shiller: Composite 20	8	2.9	2.1	8	2.4	2.1
FHFA: Purchase Only (U.S. Total)	10	3.5	2.7	10	2.1	2.5
CoreLogic: National HPI, incl. Distressed Sales (Single Family Combined)	1	2.3	2.3	1	-1.1	-1.1
NAR Median: Total Existing	2	1.0	1.0	2	1.8	1.8

Improved Long-Term Productivity Growth and Higher Returns on Fixed-Income Securities

In our first-quarter surveys, the forecasters provide their 10-year annual-average projections for an expanded set of variables, including growth in output and productivity, as well as returns on financial assets.

As the table below shows, the forecasters expect real GDP to grow at an annual-average rate of 2.00 percent over the next 10 years, unchanged from their projection in the first-quarter survey of 2023. Ten-year annual-average productivity growth is now expected to be 1.50 percent, up from 1.30 percent previously.

Mixed returns on financial assets over the next 10 years accompany the current long-term outlook for real GDP and productivity. The forecasters predict the S&P 500 returning an annual-average 7.00 percent over the next 10 years, down from the previous estimate of 7.50 percent in the first-quarter survey of 2023. The forecasters see the rate on 10-year Treasuries averaging 3.60 percent over the next 10 years, up from 3.35 percent in last year’s first-quarter survey. Three-month Treasury bills will return an annual-average 2.78 percent over the next 10 years, up from 2.65 percent previously.

Median Long-Term (10-Year) Forecasts (%)

	<i>First Quarter 2023</i>	<i>Current Survey</i>
<i>Real GDP Growth</i>	2.00	2.00
<i>Productivity Growth</i>	1.30	1.50
<i>Stock Returns (S&P 500)</i>	7.50	7.00
<i>Rate on 10-Year Treasury Bonds</i>	3.35	3.60
<i>Bill Returns (3-Month)</i>	2.65	2.78

Technical Notes

Moody's Aaa and Baa Historical Rates

The historical values of Moody's Aaa and Baa rates are proprietary and, therefore, not available in the data files on the Bank's website or on the tables that accompany the survey's complete write-up in the PDF.

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** and **Doug Porter**, Bank of Montreal-BMO; **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**, 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; **Yaniv Konchitchki**, University of California, Berkeley; **Thomas Lam**, Independent Economist (Singapore); **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 Economics, LLC; **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; **Parker Ross**, Arch Capital Group; **Philip Rothman**, East Carolina University; **Allen Sinai** and **Lu Yu**, 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; **Ryan Sweet**, Oxford Economics USA, Inc.; **Jordan Vickers** and **Maira Trimble**, 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.

SUMMARY TABLE
SURVEY OF PROFESSIONAL FORECASTERS
MAJOR MACROECONOMIC INDICATORS

	2024 Q1	2024 Q2	2024 Q3	2024 Q4	2025 Q1	2024	2025	2026	2027
						(YEAR-OVER-YEAR)			
PERCENT GROWTH AT ANNUAL RATES									
1. REAL GDP (BILLIONS, CHAIN WEIGHTED)	2.1	1.5	1.5	1.7	1.8	2.4	1.8	2.2	1.7
2. GDP PRICE INDEX (PERCENT CHANGE)	2.0	2.0	2.1	2.1	2.2	2.1	2.1	N.A.	N.A.
3. NOMINAL GDP (\$ BILLIONS)	4.3	3.5	3.6	4.1	4.2	4.6	3.9	N.A.	N.A.
4. NONFARM PAYROLL EMPLOYMENT (PERCENT CHANGE) (AVG MONTHLY CHANGE)	1.8 235.8	0.9 119.8	0.9 114.6	0.9 122.4	1.0 133.5	1.5 190.0	0.8 111.7	N.A. N.A.	N.A. N.A.
VARIABLES IN LEVELS									
5. UNEMPLOYMENT RATE (PERCENT)	3.8	3.9	4.0	4.0	4.1	3.9	4.1	4.1	4.0
6. 3-MONTH TREASURY BILL (PERCENT)	5.3	5.2	4.8	4.6	4.2	5.0	3.8	3.0	2.8
7. 10-YEAR TREASURY BOND (PERCENT)	4.1	4.0	3.9	3.8	3.8	3.9	3.7	3.7	3.7
	2024 Q1	2024 Q2	2024 Q3	2024 Q4	2025 Q1	2024	2025	2026	
						(Q4-OVER-Q4)			
INFLATION INDICATORS									
8. CPI (ANNUAL RATE)	2.5	2.5	2.4	2.4	2.3	2.5	2.2	2.3	
9. CORE CPI (ANNUAL RATE)	3.1	2.7	2.6	2.4	2.4	2.7	2.3	2.3	
10. PCE (ANNUAL RATE)	1.9	2.1	2.1	2.1	2.0	2.1	2.0	2.0	
11. CORE PCE (ANNUAL RATE)	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	

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

Source: Research Department, Federal Reserve Bank of Philadelphia.
Survey of Professional Forecasters, First Quarter 2024.

SURVEY OF PROFESSIONAL FORECASTERS

First Quarter 2024

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 January 25, 2024; the tables do not reflect subsequent revisions to the data. All forecasts were received on or before February 6, 2024.

TABLE ONE
MAJOR MACROECONOMIC INDICATORS
MEDIAN OF FORECASTER PREDICTIONS

	NUMBER OF FORECASTERS	ACTUAL		FORECAST				ACTUAL		FORECAST		
		2023 Q4	2024 Q1	2024 Q2	2024 Q3	2024 Q4	2025 Q1	2023 ANNUAL	2024 ANNUAL	2025 ANNUAL	2026 ANNUAL	2027 ANNUAL
1. GROSS DOMESTIC PRODUCT (GDP) (\$ BILLIONS)	31	27939	28232	28473	28725	29013	29313	27356	28604	29719	N.A.	N.A.
2. GDP PRICE INDEX (2017=100)	30	123.24	123.85	124.47	125.13	125.78	126.46	122.27	124.81	127.46	N.A.	N.A.
3. CORPORATE PROFITS AFTER TAXES (\$ BILLIONS)	16	N.A.	2738.5	2768.6	2779.7	2786.7	2797.3	N.A.	2768.4	2860.9	N.A.	N.A.
4. UNEMPLOYMENT RATE (PERCENT)	33	3.7	3.8	3.9	4.0	4.0	4.1	3.6	3.9	4.1	4.1	4.0
5. NONFARM PAYROLL EMPLOYMENT (THOUSANDS)	28	157030	157738	158097	158441	158808	159209	156174	158454	159795	N.A.	N.A.
6. INDUSTRIAL PRODUCTION (2017=100)	25	102.5	102.7	102.9	103.2	103.6	103.8	102.8	103.1	104.5	N.A.	N.A.
7. NEW PRIVATE HOUSING STARTS (ANNUAL RATE, MILLIONS)	29	1.45	1.42	1.43	1.45	1.46	1.45	1.41	1.45	1.48	N.A.	N.A.
8. 3-MONTH TREASURY BILL RATE (PERCENT)	32	5.28	5.34	5.18	4.84	4.60	4.17	5.07	5.00	3.78	3.03	2.82
9. MOODY'S AAA CORP BOND YIELD * (PERCENT)	20	N.A.	4.89	4.86	4.85	4.81	4.78	N.A.	4.87	4.70	N.A.	N.A.
10. MOODY'S BAA CORP BOND YIELD * (PERCENT)	19	N.A.	5.80	5.85	5.73	5.74	5.75	N.A.	5.78	5.70	N.A.	N.A.
11. 10-YEAR TREASURY BOND YIELD (PERCENT)	31	4.44	4.07	4.00	3.85	3.80	3.77	3.96	3.93	3.70	3.70	3.70
12. REAL GDP (BILLIONS, CHAIN WEIGHTED)	34	22673	22793	22878	22964	23063	23166	22375	22922	23329	23833	24242
13. TOTAL CONSUMPTION EXPENDITURE (BILLIONS, CHAIN WEIGHTED)	29	15569.8	15665.2	15722.7	15793.1	15858.6	15934.7	15421.9	15760.6	16078.2	N.A.	N.A.
14. NONRESIDENTIAL FIXED INVESTMENT (BILLIONS, CHAIN WEIGHTED)	28	3300.3	3318.5	3333.1	3351.1	3363.7	3382.2	3268.0	3341.2	3416.7	N.A.	N.A.
15. RESIDENTIAL FIXED INVESTMENT (BILLIONS, CHAIN WEIGHTED)	28	740.8	744.5	747.8	752.7	758.4	763.3	734.5	750.0	772.1	N.A.	N.A.
16. FEDERAL GOVERNMENT C & I (BILLIONS, CHAIN WEIGHTED)	29	1501.6	1507.6	1514.3	1518.2	1521.7	1522.7	1480.9	1516.1	1527.2	N.A.	N.A.
17. STATE AND LOCAL GOVT C & I (BILLIONS, CHAIN WEIGHTED)	29	2373.0	2384.8	2394.2	2404.4	2412.4	2419.5	2336.0	2397.4	2429.8	N.A.	N.A.
18. CHANGE IN PRIVATE INVENTORIES (BILLIONS, CHAIN WEIGHTED)	27	82.7	57.3	47.7	44.8	49.0	49.8	50.7	48.9	52.7	N.A.	N.A.
19. NET EXPORTS (BILLIONS, CHAIN WEIGHTED)	27	-908.2	-914.7	-917.0	-923.9	-928.0	-942.4	-925.6	-921.1	-957.3	N.A.	N.A.

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

Source: Research Department, Federal Reserve Bank of Philadelphia. Survey of Professional Forecasters, First Quarter 2024.

TABLE TWO
MAJOR MACROECONOMIC INDICATORS
PERCENTAGE CHANGES AT ANNUAL RATES

	NUMBER OF FORECASTERS	Q4 2023	Q1 2024	Q2 2024	Q3 2024	Q4 2024	2023	2024	2025	2026
		TO Q1 2024	TO Q2 2024	TO Q3 2024	TO Q4 2024	TO Q1 2025	TO 2024	TO 2025	TO 2026	TO 2027
1. GROSS DOMESTIC PRODUCT (GDP) (\$ BILLIONS)	31	4.3	3.5	3.6	4.1	4.2	4.6	3.9	N.A.	N.A.
2. GDP PRICE INDEX (2017=100)	30	2.0	2.0	2.1	2.1	2.2	2.1	2.1	N.A.	N.A.
3. CORPORATE PROFITS AFTER TAXES (\$ BILLIONS)	16	2.6	4.5	1.6	1.0	1.5	4.4	3.3	N.A.	N.A.
4. UNEMPLOYMENT RATE (PERCENT)	33	0.1	0.1	0.1	0.0	0.1	0.3	0.2	0.0	-0.1
5. NONFARM PAYROLL EMPLOYMENT (PERCENT CHANGE) (AVG MONTHLY CHANGE)	28 28	1.8 235.8	0.9 119.8	0.9 114.6	0.9 122.4	1.0 133.5	1.5 190.0	0.8 111.7	N.A. N.A.	N.A. N.A.
6. INDUSTRIAL PRODUCTION (2017=100)	25	0.8	0.7	1.1	1.7	0.9	0.3	1.4	N.A.	N.A.
7. NEW PRIVATE HOUSING STARTS (ANNUAL RATE, MILLIONS)	29	-8.6	0.9	7.3	1.4	-1.2	2.1	2.2	N.A.	N.A.
8. 3-MONTH TREASURY BILL RATE (PERCENT)	32	0.06	-0.16	-0.34	-0.24	-0.43	-0.07	-1.22	-0.75	-0.21
9. MOODY'S AAA CORP BOND YIELD * (PERCENT)	20	N.A.	-0.03	-0.01	-0.04	-0.04	N.A.	-0.17	N.A.	N.A.
10. MOODY'S BAA CORP BOND YIELD * (PERCENT)	19	N.A.	0.05	-0.12	0.02	0.01	N.A.	-0.08	N.A.	N.A.
11. 10-YEAR TREASURY BOND YIELD (PERCENT)	31	-0.37	-0.07	-0.15	-0.05	-0.03	-0.03	-0.24	0.00	-0.00
12. REAL GDP (BILLIONS, CHAIN WEIGHTED)	34	2.1	1.5	1.5	1.7	1.8	2.4	1.8	2.2	1.7
13. TOTAL CONSUMPTION EXPENDITURE (BILLIONS, CHAIN WEIGHTED)	29	2.5	1.5	1.8	1.7	1.9	2.2	2.0	N.A.	N.A.
14. NONRESIDENTIAL FIXED INVESTMENT (BILLIONS, CHAIN WEIGHTED)	28	2.2	1.8	2.2	1.5	2.2	2.2	2.3	N.A.	N.A.
15. RESIDENTIAL FIXED INVESTMENT (BILLIONS, CHAIN WEIGHTED)	28	2.0	1.8	2.7	3.1	2.6	2.1	2.9	N.A.	N.A.
16. FEDERAL GOVERNMENT C & I (BILLIONS, CHAIN WEIGHTED)	29	1.6	1.8	1.0	0.9	0.3	2.4	0.7	N.A.	N.A.
17. STATE AND LOCAL GOVT C & I (BILLIONS, CHAIN WEIGHTED)	29	2.0	1.6	1.7	1.3	1.2	2.6	1.4	N.A.	N.A.
18. CHANGE IN PRIVATE INVENTORIES (BILLIONS, CHAIN WEIGHTED)	27	-25.4	-9.6	-2.9	4.2	0.8	-1.8	3.8	N.A.	N.A.
19. NET EXPORTS (BILLIONS, CHAIN WEIGHTED)	27	-6.5	-2.3	-6.9	-4.1	-14.3	4.5	-36.3	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, First Quarter 2024.

TABLE THREE
 MAJOR PRICE INDICATORS
 MEDIANS OF FORECASTER PREDICTIONS

	NUMBER OF FORECASTERS	ACTUAL		FORECAST (Q/Q)				ACTUAL		FORECAST (Q4/Q4)	
		2023 Q4	2024 Q1	2024 Q2	2024 Q3	2024 Q4	2025 Q1	2023 ANNUAL	2024 ANNUAL	2025 ANNUAL	2026 ANNUAL
1. CONSUMER PRICE INDEX (ANNUAL RATE)	32	2.8	2.5	2.5	2.4	2.4	2.3	3.2	2.5	2.2	2.3
2. CORE CONSUMER PRICE INDEX (ANNUAL RATE)	32	3.4	3.1	2.7	2.6	2.4	2.4	4.0	2.7	2.3	2.3
3. PCE PRICE INDEX (ANNUAL RATE)	32	1.7	1.9	2.1	2.1	2.1	2.0	2.7	2.1	2.0	2.0
4. CORE PCE PRICE INDEX (ANNUAL RATE)	32	2.0	2.1	2.1	2.1	2.1	2.1	3.2	2.1	2.0	2.0

Source: Research Department, Federal Reserve Bank of Philadelphia. Survey of Professional Forecasters, First Quarter 2024.

TABLE FOUR
YIELD SPREADS
MEDIANS OF FORECASTER PREDICTIONS

	NUMBER OF FORECASTERS	ACTUAL	FORECAST					ACTUAL	FORECAST				
		2023 Q4	2024 Q1	2024 Q2	2024 Q3	2024 Q4	2025 Q1	2023 ANNUAL	2024 ANNUAL	2025 ANNUAL	2026 ANNUAL	2027 ANNUAL	
1. TBOND MINUS TBILL (PERCENTAGE POINTS)	30	-0.84	-1.27	-1.13	-0.94	-0.72	-0.43	-1.11	-1.00	-0.06	0.80	0.91	
2. AAA MINUS TBOND (PERCENTAGE POINTS)	20	N.A.	0.79	0.82	0.86	0.90	0.95	N.A.	0.86	1.01	N.A.	N.A.	
3. BAA MINUS TBOND (PERCENTAGE POINTS)	19	N.A.	1.67	1.78	1.80	1.80	1.88	N.A.	1.78	1.91	N.A.	N.A.	
4. BAA MINUS AAA (PERCENTAGE POINTS)	19	N.A.	0.89	0.90	0.92	0.90	0.95	N.A.	0.91	0.98	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, First Quarter 2024.

TABLE FIVE
ESTIMATED PROBABILITY OF DECLINE IN REAL GDP

ESTIMATED PROBABILITY (CHANCES IN 100)	Q4 2023	Q1 2024	Q2 2024	Q3 2024	Q4 2024
	TO Q1 2024	TO Q2 2024	TO Q3 2024	TO Q4 2024	TO Q1 2025
NUMBER OF FORECASTERS					
10 OR LESS	12	7	4	5	5
11 TO 20	5	7	9	5	5
21 TO 30	5	6	7	10	11
31 TO 40	3	4	5	4	3
41 TO 50	0	1	0	1	0
51 TO 60	0	0	0	1	2
61 TO 70	1	0	0	0	0
71 TO 80	0	1	1	0	0
81 TO 90	0	0	0	0	0
91 AND OVER	0	0	0	0	0
NOT REPORTING	8	8	8	8	8
MEAN AND MEDIAN					
MEDIAN PROBABILITY	17.50	20.00	22.50	25.00	25.00
MEAN PROBABILITY	17.30	23.94	25.57	25.57	25.18

Note: Total number of forecasters reporting is 26.

Source: Research Department, Federal Reserve Bank of Philadelphia.
Survey of Professional Forecasters, First Quarter 2024.

TABLE SIX
MEAN PROBABILITIES

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

	2024	2025	2026	2027
15.0 PERCENT OR MORE	0.13	0.12	0.00	0.00
12.0 TO 14.9 PERCENT	0.08	0.07	0.00	0.00
10.0 TO 11.9 PERCENT	0.10	0.07	0.00	0.15
8.0 TO 9.9 PERCENT	0.30	0.25	0.52	0.57
7.0 TO 7.9 PERCENT	0.73	1.24	1.69	1.68
6.0 TO 6.9 PERCENT	1.93	3.02	2.75	3.11
5.0 TO 5.9 PERCENT	7.29	11.92	13.03	13.66
4.0 TO 4.9 PERCENT	41.84	43.62	45.47	41.88
3.0 TO 3.9 PERCENT	45.50	36.83	34.11	36.74
LESS THAN 3.0 PERCENT	2.09	2.87	2.42	2.22

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

	2023-2024	2024-2025	2025-2026	2026-2027
16.0 PERCENT OR MORE	0.02	0.02	0.02	0.02
10.0 TO 15.9 PERCENT	0.04	0.08	0.04	0.07
7.0 TO 9.9 PERCENT	0.11	0.33	0.16	0.42
4.0 TO 6.9 PERCENT	3.22	3.96	4.65	4.94
2.5 TO 3.9 PERCENT	30.13	20.62	19.68	18.42
1.5 TO 2.4 PERCENT	46.85	40.59	46.31	46.02
0.0 TO 1.4 PERCENT	14.96	25.60	21.49	21.75
-3.0 TO -0.1 PERCENT	4.16	7.67	6.69	7.12
-6.0 TO -3.1 PERCENT	0.40	0.76	0.72	0.96
-12.0 TO -6.1 PERCENT	0.08	0.31	0.22	0.25
LESS THAN -12.0 PERCENT	0.02	0.06	0.02	0.02

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

	2023-2024	2024-2025
4.0 PERCENT OR MORE	0.80	2.77
3.5 TO 3.9 PERCENT	1.35	2.37
3.0 TO 3.4 PERCENT	5.78	7.06
2.5 TO 2.9 PERCENT	21.63	17.54
2.0 TO 2.4 PERCENT	35.61	30.73
1.5 TO 1.9 PERCENT	24.11	27.27
1.0 TO 1.4 PERCENT	7.46	8.04
0.5 TO 0.9 PERCENT	2.03	2.56
0.0 TO 0.4 PERCENT	0.66	1.13
LESS THAN 0.0 PERCENT	0.57	0.53

Source: Research Department, Federal Reserve Bank of Philadelphia.
Survey of Professional Forecasters, First Quarter 2024.

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

MEAN PROBABILITY ATTACHED TO CORE CPI INFLATION:

	23Q4 TO 24Q4	24Q4 TO 25Q4
4.0 PERCENT OR MORE	1.79	2.46
3.5 TO 3.9 PERCENT	6.18	4.07
3.0 TO 3.4 PERCENT	20.61	9.93
2.5 TO 2.9 PERCENT	31.30	20.60
2.0 TO 2.4 PERCENT	24.19	35.68
1.5 TO 1.9 PERCENT	11.57	18.46
1.0 TO 1.4 PERCENT	3.22	5.23
0.5 TO 0.9 PERCENT	0.60	1.83
0.0 TO 0.4 PERCENT	0.43	0.93
LESS THAN 0.0 PERCENT	0.13	0.82

MEAN PROBABILITY ATTACHED TO CORE PCE INFLATION:

	23Q4 TO 24Q4	24Q4 TO 25Q4
4.0 PERCENT OR MORE	0.61	0.56
3.5 TO 3.9 PERCENT	2.29	1.45
3.0 TO 3.4 PERCENT	8.10	4.87
2.5 TO 2.9 PERCENT	20.49	14.28
2.0 TO 2.4 PERCENT	39.82	39.97
1.5 TO 1.9 PERCENT	22.48	26.61
1.0 TO 1.4 PERCENT	4.35	7.57
0.5 TO 0.9 PERCENT	1.25	2.94
0.0 TO 0.4 PERCENT	0.48	1.28
LESS THAN 0.0 PERCENT	0.14	0.47

Source: Research Department, Federal Reserve Bank of Philadelphia.
 Survey of Professional Forecasters, First Quarter 2024.

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

ANNUAL AVERAGE OVER THE NEXT 5 YEARS: 2024-2028
=====

CPI INFLATION RATE		PCE INFLATION RATE	
-----		-----	
MINIMUM	1.75	MINIMUM	1.59
LOWER QUARTILE	2.10	LOWER QUARTILE	1.97
MEDIAN	2.30	MEDIAN	2.05
UPPER QUARTILE	2.50	UPPER QUARTILE	2.30
MAXIMUM	3.07	MAXIMUM	2.79
MEAN	2.33	MEAN	2.10
STD. DEVIATION	0.27	STD. DEVIATION	0.23
N	27	N	27
MISSING	7	MISSING	7

ANNUAL AVERAGE OVER THE FOLLOWING 5 YEARS: 2029-2033
=====

CPI INFLATION RATE		PCE INFLATION RATE	
-----		-----	
MINIMUM	1.70	MINIMUM	1.41
LOWER QUARTILE	2.10	LOWER QUARTILE	1.85
MEDIAN	2.15	MEDIAN	2.00
UPPER QUARTILE	2.30	UPPER QUARTILE	2.10
MAXIMUM	2.70	MAXIMUM	2.42
MEAN	2.18	MEAN	1.97
STD. DEVIATION	0.22	STD. DEVIATION	0.22
N	27	N	27
MISSING	7	MISSING	7

ANNUAL AVERAGE OVER THE NEXT 10 YEARS: 2024-2033
=====

CPI INFLATION RATE		PCE INFLATION RATE	
-----		-----	
MINIMUM	1.93	MINIMUM	1.69
LOWER QUARTILE	2.10	LOWER QUARTILE	1.94
MEDIAN	2.24	MEDIAN	2.00
UPPER QUARTILE	2.40	UPPER QUARTILE	2.10
MAXIMUM	2.60	MAXIMUM	2.40
MEAN	2.26	MEAN	2.03
STD. DEVIATION	0.19	STD. DEVIATION	0.15
N	27	N	27
MISSING	7	MISSING	7

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, First Quarter 2024.

TABLE NINE
ADDITIONAL LONG-TERM (10-YEAR) FORECASTS

ANNUAL AVERAGE OVER THE NEXT 10 YEARS: 2024-2033

=====

REAL GDP GROWTH RATE		PRODUCTIVITY GROWTH RATE			
-----		-----			
MINIMUM	1.50	MINIMUM	0.90		
LOWER QUARTILE	1.73	LOWER QUARTILE	1.20		
MEDIAN	2.00	MEDIAN	1.50		
UPPER QUARTILE	2.20	UPPER QUARTILE	1.70		
MAXIMUM	2.50	MAXIMUM	3.00		
MEAN	1.98	MEAN	1.55		
STD. DEVIATION	0.30	STD. DEVIATION	0.47		
N	24	N	19		
MISSING	10	MISSING	15		
STOCK RETURNS (S&P 500)		BOND RATE (10-YEAR)		BILL RETURNS (3-MONTH)	
-----		-----		-----	
MINIMUM	2.10	MINIMUM	2.20	MINIMUM	2.00
LOWER QUARTILE	6.00	LOWER QUARTILE	3.30	LOWER QUARTILE	2.60
MEDIAN	7.00	MEDIAN	3.60	MEDIAN	2.78
UPPER QUARTILE	8.00	UPPER QUARTILE	3.90	UPPER QUARTILE	3.30
MAXIMUM	15.00	MAXIMUM	4.60	MAXIMUM	3.70
MEAN	7.15	MEAN	3.55	MEAN	2.84
STD. DEVIATION	2.59	STD. DEVIATION	0.57	STD. DEVIATION	0.48
N	19	N	22	N	22
MISSING	15	MISSING	12	MISSING	12

Source: Research Department, Federal Reserve Bank of Philadelphia.
Survey of Professional Forecasters, First Quarter 2024.