



# SURVEY OF PROFESSIONAL FORECASTERS

Release Date: May 15, 2015

## SECOND QUARTER 2015

### *Weaker Outlook for Growth*

The outlook for growth in the U.S. economy over the next three years looks weaker now than it did in February, according to 44 forecasters surveyed by the Federal Reserve Bank of Philadelphia. The forecasters predict real GDP will grow at an annual rate of 2.5 percent this quarter and 3.1 percent next quarter. On an annual-average over annual-average basis, real GDP will grow 2.4 percent in 2015, down 0.8 percentage point from the previous estimate. The forecasters predict real GDP will grow 2.8 percent each in 2016 and 2017, and 2.5 percent in 2018.

A slightly brighter outlook for unemployment accompanies the weaker outlook for growth. The forecasters predict that the unemployment rate will be an annual average of 5.4 percent in 2015, before falling to 5.0 percent in 2016, and 4.8 percent each in 2017 and 2018. The projections for 2016, 2017, and 2018 are slightly below those of the last survey.

The panelists have revised downward their estimates for job gains in 2015 and 2016. The forecasters see nonfarm payroll employment growing at a rate of 195,300 jobs per month this quarter, 223,300 jobs per month next quarter, and 223,000 jobs per month in the fourth quarter of 2015. The forecasters' projections for the annual-average level of nonfarm payroll employment suggest job gains at a monthly rate of 243,900 in 2015 and 180,100 in 2016, as the table below shows.

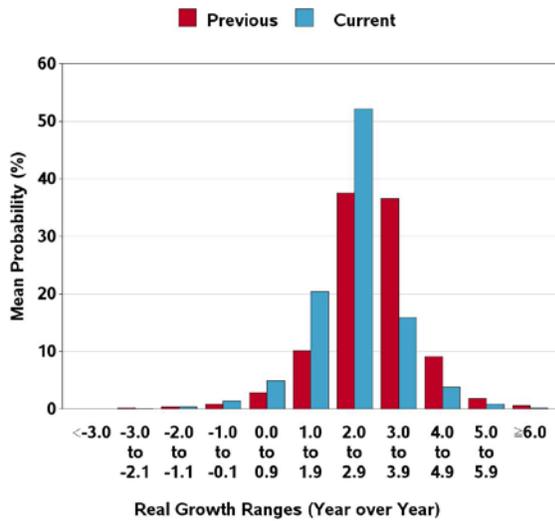
(These annual-average estimates are computed as the year-to-year change in the annual-average level of nonfarm payroll employment, converted to a monthly rate.)

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

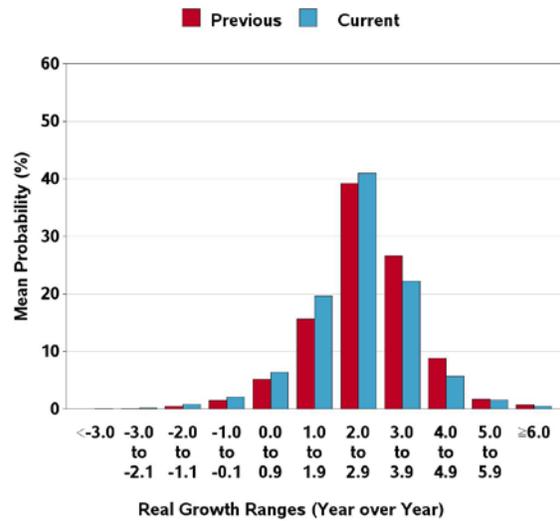
	Real GDP (%)		Unemployment Rate (%)		Payrolls (000s/month)	
	Previous	New	Previous	New	Previous	New
Quarterly data:						
2015:Q2	3.0	2.5	5.5	5.4	233.8	195.3
2015:Q3	2.8	3.1	5.4	5.3	222.0	223.3
2015:Q4	2.8	2.9	5.2	5.2	229.4	223.0
2016:Q1	2.9	2.4	5.2	5.1	213.8	177.0
2016:Q2	N.A.	3.0	N.A.	5.0	N.A.	178.3
Annual data (projections are based on annual-average levels):						
2015	3.2	2.4	5.4	5.4	252.5	243.9
2016	2.9	2.8	5.1	5.0	213.6	180.1
2017	2.7	2.8	5.0	4.8	N.A.	N.A.
2018	2.7	2.5	4.9	4.8	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 2015, the forecasters are more confident now than they were three months ago that growth will average between 2.0 and 2.9 percent.

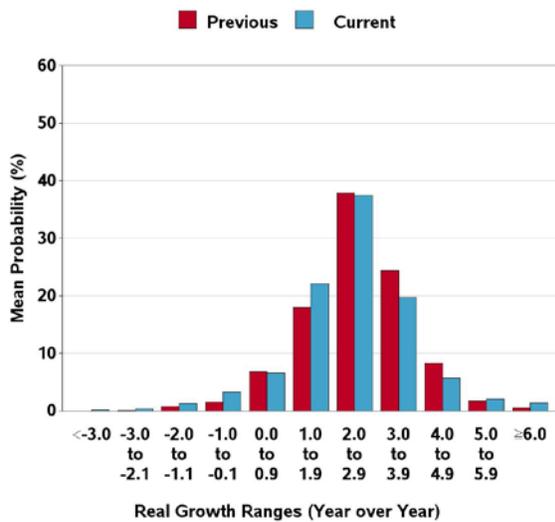
Mean Probabilities for Real GDP Growth in 2015



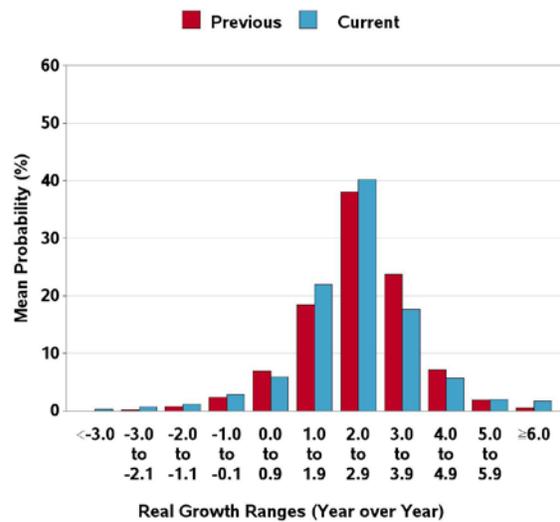
Mean Probabilities for Real GDP Growth in 2016



Mean Probabilities for Real GDP Growth in 2017

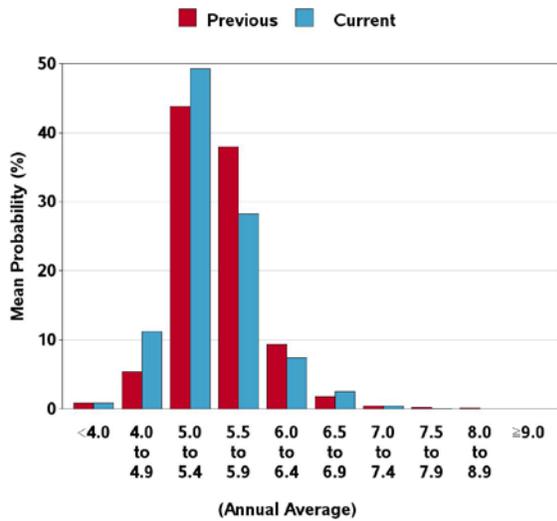


Mean Probabilities for Real GDP Growth in 2018

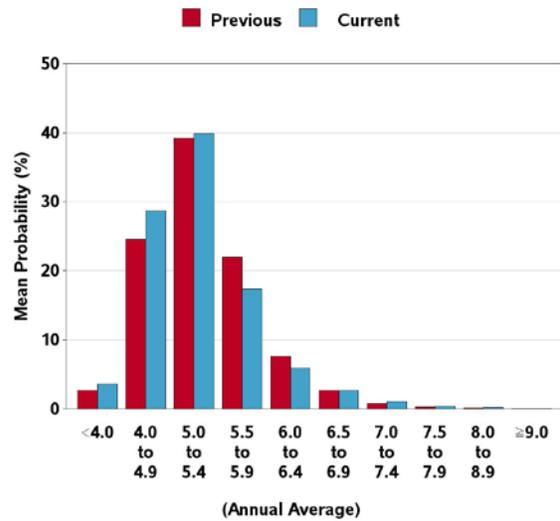


The forecasters' density projections for unemployment, shown below, shed light on uncertainty about the labor market over the next four years. Each chart for unemployment presents the forecasters' current estimates of the probability that unemployment will fall into each of 10 ranges. The charts show that the forecasters are raising their density estimates at the lower levels of unemployment outcomes in 2015 and 2016, suggesting they are more confident about lower unemployment over the next two years than they were in the last survey.

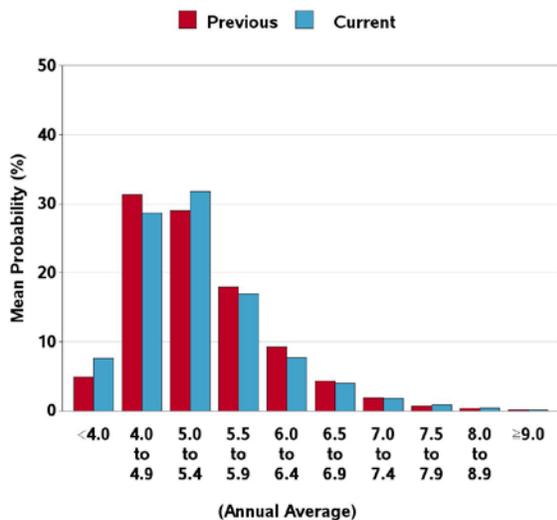
Mean Probabilities for Unemployment Rate in 2015



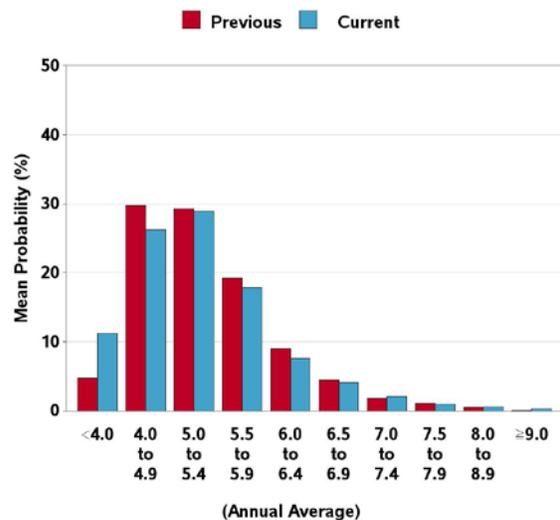
Mean Probabilities for Unemployment Rate in 2016



Mean Probabilities for Unemployment Rate in 2017



Mean Probabilities for Unemployment Rate in 2018



***Higher Headline Inflation in the Current Quarter but Lower Inflation in 2015***

The forecasters expect current-quarter headline CPI inflation to average 1.9 percent, higher than the last survey's estimate of 1.6 percent. The forecasters predict current-quarter headline PCE inflation of 1.6 percent, higher than the prediction of 1.4 percent from the survey of three months ago.

At the same time, the forecasters see lower headline inflation in 2015. Measured on a fourth-quarter over fourth-quarter basis, headline CPI inflation is expected to average 0.7 percent in 2015, down from 1.1 percent in the last survey. Forecasters expect fourth-quarter over fourth-quarter headline PCE inflation to average 0.8 percent in 2015, also down from 1.1 percent in the last survey.

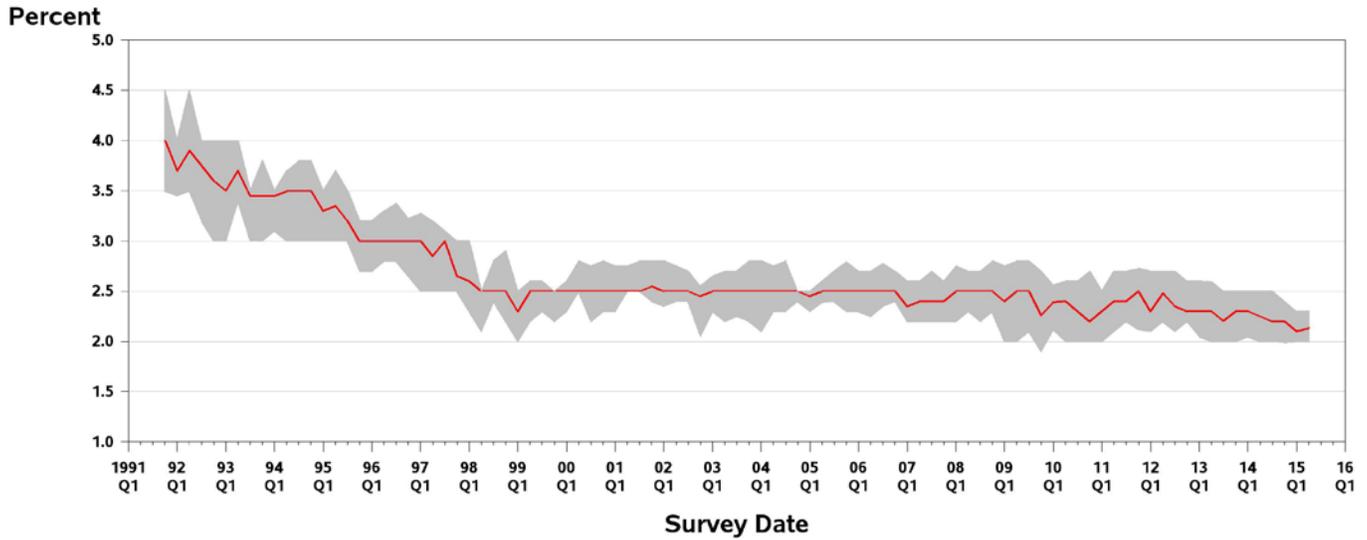
Over the next 10 years, 2015 to 2024, the forecasters expect headline CPI inflation to average 2.14 percent at an annual rate. The corresponding estimate for 10-year annual-average PCE inflation is 1.98 percent.

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

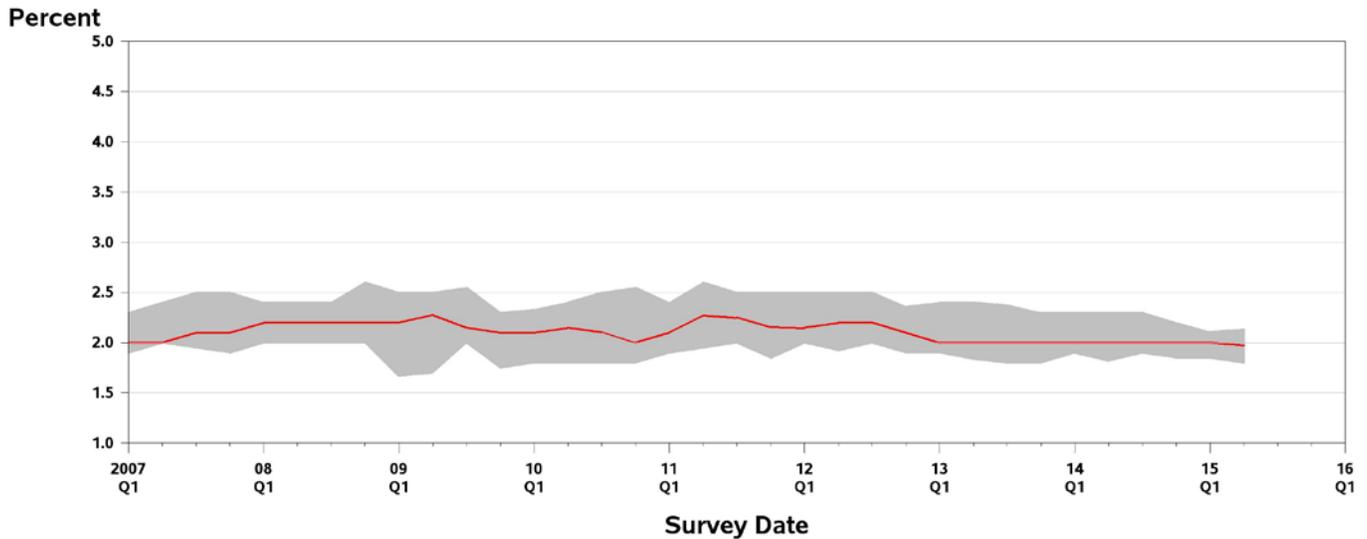
	Headline CPI		Core CPI		Headline PCE		Core PCE	
	Previous	Current	Previous	Current	Previous	Current	Previous	Current
Quarterly								
2015:Q2	1.6	1.9	1.7	1.8	1.4	1.6	1.4	1.5
2015:Q3	1.9	2.0	1.8	1.8	1.9	1.7	1.5	1.5
2015:Q4	2.0	1.9	1.8	1.9	1.8	1.7	1.7	1.6
2016:Q1	2.1	1.9	1.9	1.9	1.8	1.7	1.6	1.7
2016:Q2	N.A.	2.1	N.A.	2.0	N.A.	1.9	N.A.	1.7
Q4/Q4 Annual Averages								
2015	1.1	0.7	1.7	1.8	1.1	0.8	1.4	1.4
2016	2.1	2.1	1.9	2.0	1.9	1.9	1.7	1.7
2017	2.3	2.3	2.1	2.1	2.1	1.9	1.9	1.9
Long-Term Annual Averages								
2015-2019	2.00	2.00	N.A.	N.A.	1.80	1.80	N.A.	N.A.
2015-2024	2.10	2.14	N.A.	N.A.	2.00	1.98	N.A.	N.A.

The charts below show the median projections (the red line) and the associated interquartile ranges (the gray area around the red line) for 10-year annual-average CPI and PCE inflation. The top panel shows a slightly higher level of the long-term projection for CPI inflation, at 2.14 percent. The bottom panel highlights the little changed 10-year forecast for PCE inflation, at 1.98 percent.

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

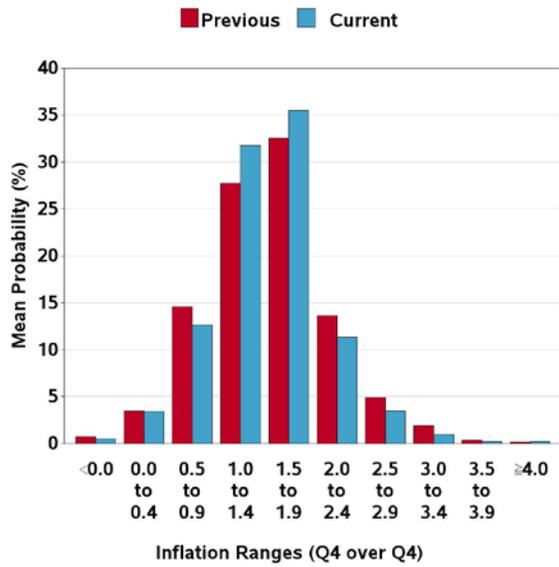


**Projections for the 10-Year Annual-Average Rate of PCE Inflation  
(Median and Interquartile Range)**

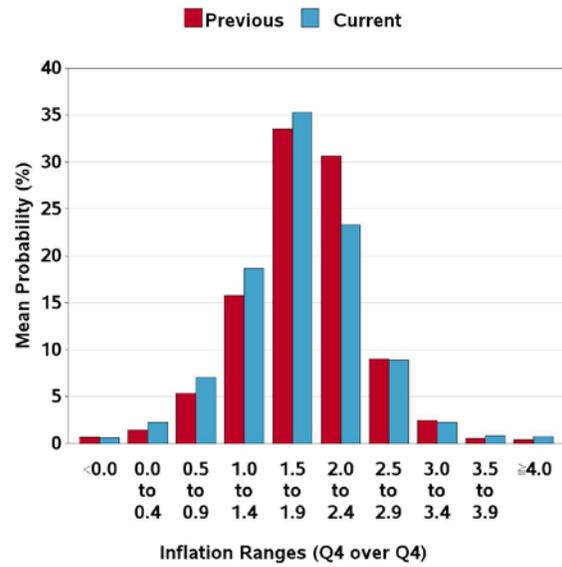


The figures below show the probabilities that the forecasters are assigning to the possibility that fourth-quarter over fourth-quarter core PCE inflation in 2015 and 2016 will fall into each of 10 ranges. For both years, the forecasters assign a higher chance than they previously predicted that core PCE inflation will be between 1.0 to 1.9 percent.

Mean Probabilities for Core PCE Inflation in 2015



Mean Probabilities for Core PCE Inflation in 2016



**Risk of a Negative Quarter Remains Low**

For the current quarter, the forecasters predict an 11.2 percent chance of negative growth. As the table below shows, the forecasters have made small changes to their risk estimates for the third and fourth quarters of 2015, compared with their previous estimates.

*Risk of a Negative Quarter (%)*  
*Survey Means*

Quarterly data:	Previous	New
2015:Q2	9.3	11.2
2015:Q3	11.1	11.0
2015:Q4	11.9	12.0
2016:Q1	13.2	14.8
2016:Q2	N.A.	15.2

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

**Lewis Alexander**, Nomura Securities; **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.; **Christine Chmura, Ph.D.** and **Xiaobing Shuai, Ph.D.**, Chmura Economics & Analytics; **Gary Ciminero, CFA**, GLC Financial Economics; **David Crowe**, National Association of Home Builders; **Nathaniel Curtis**, Navigant Consulting; **Gregory Daco**, Oxford Economics USA, Inc.; **Rajeev Dhawan**, Georgia State University; **Michael R. Englund**, Action Economics, LLC; **Michael Gapen**, Barclays Capital; **James Glassman**, JPMorgan Chase & Co.; **Matthew Hall**, **Daniil Manaenkov**, and **Ben Meiselman**, RSQE, University of Michigan; **Jan Hatzius**, Goldman Sachs; **Keith Hembre**, Nuveen Asset Management; **Peter Hooper**, Deutsche Bank Securities, Inc.; **IHS Global Insight**; **Fred Joutz**, Benchmark Forecasts and Research Program on Forecasting, George Washington University; **Sam Kahan**, Kahan Consulting Ltd. (ACT Research LLC); **N. Karp**, BBVA Compass; **Walter Kemmsies**, Moffatt & Nichol; **Jack Kleinhenz**, Kleinhenz & Associates, Inc.; **Thomas Lam**, RHB Securities Singapore Pte. Ltd.; **L. Douglas Lee**, Economics from Washington; **John Lonski**, Moody's Capital Markets Group; **Macroeconomic Advisers, LLC**; **R. Anthony Metz**, Pareto Optimal Economics; **Michael Moran**, Daiwa Capital Markets America; **Joel L. Naroff**, Naroff Economic Advisors; **Mark Nielson, Ph.D.**, MacroEcon Global Advisors; **Luca Noto**, Anima Sgr; **Brendon Ogmundson**, BC Real Estate Association; **Tom Porcelli**, RBC Capital Markets; **Arun Raha**, Eaton Corporation; **Martin A. Regalia**, U.S. Chamber of Commerce; **Vincent Reinhart**, Morgan Stanley; **Philip Rothman**, East Carolina University; **Chris Rupkey**, Bank of Tokyo-Mitsubishi UFJ; **John Silvia**, Wells Fargo; **Allen Sinai**, Decision Economics, Inc.; **Sean M. Snaith, Ph.D.**, University of Central Florida; **Neal Soss**, Credit Suisse; **Stephen Stanley**, Amherst Pierpont Securities; **Charles Steindel**, Ramapo College of New Jersey; **Susan M. Sterne**, Economic Analysis Associates, Inc.; **Thomas Kevin Swift**, American Chemistry Council; **Richard Yamarone**, Bloomberg, LP; **Mark Zandi**, Moody's Analytics.

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

	2015 Q2	2015 Q3	2015 Q4	2016 Q1	2016 Q2	2015	2016 (YEAR-OVER-YEAR)	2017	2018
PERCENT GROWTH AT ANNUAL RATES									
1. REAL GDP (BILLIONS, CHAIN WEIGHTED)	2.5	3.1	2.9	2.4	3.0	2.4	2.8	2.8	2.5
2. GDP PRICE INDEX (PERCENT CHANGE)	1.6	1.8	1.7	1.9	1.9	0.9	1.9	N.A.	N.A.
3. NOMINAL GDP (\$ BILLIONS)	4.2	4.9	4.7	4.8	5.0	3.4	4.8	N.A.	N.A.
4. NONFARM PAYROLL EMPLOYMENT (PERCENT CHANGE) (AVG MONTHLY CHANGE)	1.7 195.3	1.9 223.3	1.9 223.0	1.5 177.0	1.5 178.3	2.1 243.9	1.5 180.1	N.A. N.A.	N.A. N.A.
VARIABLES IN LEVELS									
5. UNEMPLOYMENT RATE (PERCENT)	5.4	5.3	5.2	5.1	5.0	5.4	5.0	4.8	4.8
6. 3-MONTH TREASURY BILL (PERCENT)	0.0	0.2	0.4	0.6	0.9	0.2	1.1	2.4	2.6
7. 10-YEAR TREASURY BOND (PERCENT)	2.1	2.3	2.4	2.6	2.8	2.2	2.9	3.5	3.8
	2015 Q2	2015 Q3	2015 Q4	2016 Q1	2016 Q2	2015	2016 (Q4-OVER-Q4)	2017	
INFLATION INDICATORS									
8. CPI (ANNUAL RATE)	1.9	2.0	1.9	1.9	2.1	0.7	2.1	2.3	
9. CORE CPI (ANNUAL RATE)	1.8	1.8	1.9	1.9	2.0	1.8	2.0	2.1	
10. PCE (ANNUAL RATE)	1.6	1.7	1.7	1.7	1.9	0.8	1.9	1.9	
11. CORE PCE (ANNUAL RATE)	1.5	1.5	1.6	1.7	1.7	1.4	1.7	1.9	

THE FIGURES ON EACH LINE ARE MEDIANS OF 44 INDIVIDUAL FORECASTERS.

SOURCE: RESEARCH DEPARTMENT, FEDERAL RESERVE BANK OF PHILADELPHIA.  
SURVEY OF PROFESSIONAL FORECASTERS, SECOND QUARTER 2015.

# **SURVEY OF PROFESSIONAL FORECASTERS**

**Second Quarter 2015**

## **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 April 29; the tables do not reflect subsequent revisions to the data. All forecasts were received on or before May 12, 2015.

TABLE ONE  
MAJOR MACROECONOMIC INDICATORS  
MEDIAN OF FORECASTER PREDICTIONS

	NUMBER OF FORECASTERS	ACTUAL		FORECAST				ACTUAL		FORECAST		
		2015 Q1	2015 Q2	2015 Q3	2015 Q4	2016 Q1	2016 Q2	2014 ANNUAL	2015 ANNUAL	2016 ANNUAL	2017 ANNUAL	2018 ANNUAL
1. GROSS DOMESTIC PRODUCT (GDP) (\$ BILLIONS)	42	17710	17892	18109	18315	18532	18758	17419	18007	18865	N.A.	N.A.
2. GDP PRICE INDEX (2009=100)	42	108.67	109.09	109.57	110.04	110.56	111.07	108.32	109.33	111.37	N.A.	N.A.
3. CORPORATE PROFITS AFTER TAXES (\$ BILLIONS)	18	N.A.	1571.3	1595.6	1618.7	1629.5	1653.0	1497.2	1581.8	1634.5	N.A.	N.A.
4. UNEMPLOYMENT RATE (PERCENT)	42	5.6	5.4	5.3	5.2	5.1	5.0	6.2	5.4	5.0	4.8	4.8
5. NONFARM PAYROLL EMPLOYMENT (THOUSANDS)	37	141011	141597	142267	142936	143467	144002	139023	141950	144111	N.A.	N.A.
6. INDUSTRIAL PRODUCTION (2007=100)	37	105.6	106.1	106.7	107.5	108.2	108.9	104.1	106.5	109.6	N.A.	N.A.
7. NEW PRIVATE HOUSING STARTS (ANNUAL RATE, MILLIONS)	38	0.97	1.05	1.12	1.17	1.20	1.23	1.00	1.08	1.25	N.A.	N.A.
8. 3-MONTH TREASURY BILL RATE (PERCENT)	40	0.03	0.03	0.16	0.38	0.65	0.90	0.03	0.15	1.06	2.35	2.60
9. AAA CORPORATE BOND YIELD (PERCENT)	30	3.57	3.70	3.89	4.00	4.13	4.28	4.16	3.78	4.30	N.A.	N.A.
10. BAA CORPORATE BOND YIELD (PERCENT)	30	4.50	4.65	4.80	4.92	5.06	5.25	4.85	4.75	5.30	N.A.	N.A.
11. 10-YEAR TREASURY BOND YIELD (PERCENT)	42	1.97	2.11	2.29	2.41	2.61	2.78	2.54	2.22	2.85	3.54	3.80
12. REAL GDP (BILLIONS, CHAIN WEIGHTED)	42	16305	16405	16531	16650	16750	16876	16086	16473	16935	17407	17844
13. TOTAL CONSUMPTION EXPENDITURE (BILLIONS, CHAIN WEIGHTED)	39	11173.1	11256.9	11340.2	11422.8	11503.5	11584.7	10969.0	11298.1	11626.1	N.A.	N.A.
14. NONRESIDENTIAL FIXED INVESTMENT (BILLIONS, CHAIN WEIGHTED)	38	2151.1	2169.2	2195.9	2224.8	2256.3	2289.7	2116.4	2187.4	2296.8	N.A.	N.A.
15. RESIDENTIAL FIXED INVESTMENT (BILLIONS, CHAIN WEIGHTED)	38	505.9	516.6	526.8	536.9	550.0	560.1	496.2	521.5	566.1	N.A.	N.A.
16. FEDERAL GOVERNMENT C & I (BILLIONS, CHAIN WEIGHTED)	36	1120.9	1123.7	1126.5	1127.7	1129.6	1133.5	1123.5	1124.4	1134.4	N.A.	N.A.
17. STATE AND LOCAL GOVT C & I (BILLIONS, CHAIN WEIGHTED)	37	1769.8	1776.4	1782.7	1791.2	1798.6	1803.7	1765.3	1779.4	1808.7	N.A.	N.A.
18. CHANGE IN PRIVATE INVENTORIES (BILLIONS, CHAIN WEIGHTED)	37	110.3	80.0	74.7	75.0	70.0	70.4	70.6	85.1	68.0	N.A.	N.A.
19. NET EXPORTS (BILLIONS, CHAIN WEIGHTED)	38	-522.1	-526.9	-539.6	-556.0	-570.4	-573.2	-452.6	-533.7	-568.2	N.A.	N.A.

SOURCE: RESEARCH DEPARTMENT, FEDERAL RESERVE BANK OF PHILADELPHIA. SURVEY OF PROFESSIONAL FORECASTERS, SECOND QUARTER 2015.

TABLE TWO  
MAJOR MACROECONOMIC INDICATORS  
PERCENTAGE CHANGES AT ANNUAL RATES

	NUMBER OF FORECASTERS	Q1 2015	Q2 2015	Q3 2015	Q4 2015	Q1 2016	2014	2015	2016	2017
		TO Q2 2015	TO Q3 2015	TO Q4 2015	TO Q1 2016	TO Q2 2016	TO 2015	TO 2016	TO 2017	TO 2018
1. GROSS DOMESTIC PRODUCT (GDP) (\$ BILLIONS)	42	4.2	4.9	4.7	4.8	5.0	3.4	4.8	N.A.	N.A.
2. GDP PRICE INDEX (2009=100)	42	1.6	1.8	1.7	1.9	1.9	0.9	1.9	N.A.	N.A.
3. CORPORATE PROFITS AFTER TAXES (\$ BILLIONS)	18	6.0	6.3	5.9	2.7	5.9	5.7	3.3	N.A.	N.A.
4. UNEMPLOYMENT RATE (PERCENT)	42	-0.2	-0.1	-0.1	-0.1	-0.1	-0.8	-0.4	-0.2	-0.0
5. NONFARM PAYROLL EMPLOYMENT (PERCENT CHANGE) (AVG MONTHLY CHANGE)	37 37	1.7 195.3	1.9 223.3	1.9 223.0	1.5 177.0	1.5 178.3	2.1 243.9	1.5 180.1	N.A. N.A.	N.A. N.A.
6. INDUSTRIAL PRODUCTION (2007=100)	37	1.9	2.4	2.9	2.6	2.5	2.3	2.9	N.A.	N.A.
7. NEW PRIVATE HOUSING STARTS (ANNUAL RATE, MILLIONS)	38	36.6	29.2	22.1	9.2	9.5	7.7	16.2	N.A.	N.A.
8. 3-MONTH TREASURY BILL RATE (PERCENT)	40	0.00	0.13	0.22	0.26	0.25	0.12	0.91	1.29	0.25
9. AAA CORPORATE BOND YIELD (PERCENT)	30	0.13	0.19	0.11	0.13	0.14	-0.38	0.52	N.A.	N.A.
10. BAA CORPORATE BOND YIELD (PERCENT)	30	0.15	0.15	0.11	0.15	0.19	-0.10	0.55	N.A.	N.A.
11. 10-YEAR TREASURY BOND YIELD (PERCENT)	42	0.14	0.18	0.12	0.21	0.16	-0.32	0.63	0.69	0.26
12. REAL GDP (BILLIONS, CHAIN WEIGHTED)	42	2.5	3.1	2.9	2.4	3.0	2.4	2.8	2.8	2.5
13. TOTAL CONSUMPTION EXPENDITURE (BILLIONS, CHAIN WEIGHTED)	39	3.0	3.0	2.9	2.9	2.9	3.0	2.9	N.A.	N.A.
14. NONRESIDENTIAL FIXED INVESTMENT (BILLIONS, CHAIN WEIGHTED)	38	3.4	5.0	5.4	5.8	6.1	3.4	5.0	N.A.	N.A.
15. RESIDENTIAL FIXED INVESTMENT (BILLIONS, CHAIN WEIGHTED)	38	8.7	8.1	7.8	10.2	7.5	5.1	8.6	N.A.	N.A.
16. FEDERAL GOVERNMENT C & I (BILLIONS, CHAIN WEIGHTED)	36	1.0	1.0	0.4	0.7	1.4	0.1	0.9	N.A.	N.A.
17. STATE AND LOCAL GOVT C & I (BILLIONS, CHAIN WEIGHTED)	37	1.5	1.4	1.9	1.6	1.2	0.8	1.6	N.A.	N.A.
18. CHANGE IN PRIVATE INVENTORIES (BILLIONS, CHAIN WEIGHTED)	37	-30.3	-5.3	0.3	-5.0	0.4	14.5	-17.1	N.A.	N.A.
19. NET EXPORTS (BILLIONS, CHAIN WEIGHTED)	38	-4.8	-12.7	-16.4	-14.3	-2.8	-81.1	-34.5	N.A.	N.A.

NOTE: FIGURES FOR UNEMPLOYMENT RATE, TREASURY BILL RATE, AAA CORPORATE BOND YIELD, 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, SECOND QUARTER 2015.

TABLE THREE  
 MAJOR PRICE INDICATORS  
 MEDIANS OF FORECASTER PREDICTIONS

	NUMBER OF FORECASTERS	ACTUAL	FORECAST(Q/Q)				ACTUAL	FORECAST(Q4/Q4)			
		2015 Q1	2015 Q2	2015 Q3	2015 Q4	2016 Q1	2016 Q2	2014 ANNUAL	2015 ANNUAL	2016 ANNUAL	2017 ANNUAL
1. CONSUMER PRICE INDEX (ANNUAL RATE)	42	-3.1	1.9	2.0	1.9	1.9	2.1	1.2	0.7	2.1	2.3
2. CORE CONSUMER PRICE INDEX (ANNUAL RATE)	41	1.7	1.8	1.8	1.9	1.9	2.0	1.7	1.8	2.0	2.1
3. PCE PRICE INDEX (ANNUAL RATE)	39	-2.0	1.6	1.7	1.7	1.7	1.9	1.1	0.8	1.9	1.9
4. CORE PCE PRICE INDEX (ANNUAL RATE)	39	0.9	1.5	1.5	1.6	1.7	1.7	1.4	1.4	1.7	1.9

SOURCE: RESEARCH DEPARTMENT, FEDERAL RESERVE BANK OF PHILADELPHIA. SURVEY OF PROFESSIONAL FORECASTERS, SECOND QUARTER 2015.

TABLE FOUR  
ESTIMATED PROBABILITY OF DECLINE IN REAL GDP

ESTIMATED PROBABILITY (CHANCES IN 100)	Q1 2015	Q2 2015	Q3 2015	Q4 2015	Q1 2016
	TO Q2 2015	TO Q3 2015	TO Q4 2015	TO Q1 2016	TO Q2 2016
NUMBER OF FORECASTERS					
10 OR LESS	21	24	20	12	17
11 TO 20	13	12	16	21	12
21 TO 30	2	2	2	4	7
31 TO 40	1	0	0	1	1
41 TO 50	0	0	0	0	1
51 TO 60	0	0	0	0	0
61 TO 70	0	0	0	0	0
71 TO 80	0	0	0	0	0
81 TO 90	0	0	0	0	0
91 AND OVER	0	0	0	0	0
NOT REPORTING	7	6	6	6	6
MEAN AND MEDIAN					
MEDIAN PROBABILITY	10.00	10.00	10.00	15.00	12.50
MEAN PROBABILITY	11.24	11.03	11.99	14.82	15.19

NOTE: TOTAL NUMBER OF FORECASTERS REPORTING IS 37.  
SOURCE: RESEARCH DEPARTMENT, FEDERAL RESERVE BANK OF PHILADELPHIA.  
SURVEY OF PROFESSIONAL FORECASTERS, SECOND QUARTER 2015.

TABLE FIVE  
MEAN PROBABILITIES

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

	2015	2016	2017	2018
9.0 PERCENT OR MORE	0.00	0.10	0.17	0.27
8.0 TO 8.9 PERCENT	0.03	0.21	0.45	0.58
7.5 TO 7.9 PERCENT	0.07	0.39	0.82	0.96
7.0 TO 7.4 PERCENT	0.39	1.08	1.81	2.08
6.5 TO 6.9 PERCENT	2.50	2.69	4.00	4.13
6.0 TO 6.4 PERCENT	7.39	5.88	7.72	7.65
5.5 TO 5.9 PERCENT	28.24	17.39	16.95	17.89
5.0 TO 5.4 PERCENT	49.29	39.96	31.77	28.99
4.0 TO 4.9 PERCENT	11.22	28.69	28.69	26.24
LESS THAN 4.0 PERCENT	0.86	3.61	7.61	11.21

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

	2014-2015	2015-2016	2016-2017	2017-2018
6.0 OR MORE	0.16	0.46	1.36	1.69
5.0 TO 5.9	0.88	1.53	2.06	2.00
4.0 TO 4.9	3.82	5.67	5.70	5.69
3.0 TO 3.9	15.91	22.22	19.68	17.67
2.0 TO 2.9	52.14	40.98	37.47	40.20
1.0 TO 1.9	20.37	19.62	22.15	21.94
0.0 TO 0.9	4.91	6.42	6.57	5.83
-1.0 TO -0.1	1.38	2.04	3.24	2.87
-2.0 TO -1.1	0.33	0.77	1.25	1.13
-3.0 TO -2.1	0.07	0.21	0.35	0.69
LESS THAN -3.0	0.03	0.08	0.16	0.29

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

	2014-2015	2015-2016
4.0 OR MORE	0.01	0.17
3.5 TO 3.9	0.01	0.39
3.0 TO 3.4	0.22	1.52
2.5 TO 2.9	1.25	6.51
2.0 TO 2.4	7.05	23.51
1.5 TO 1.9	17.75	37.96
1.0 TO 1.4	33.99	17.64
0.5 TO 0.9	27.76	7.24
0.0 TO 0.4	9.78	3.32
WILL DECLINE	2.17	1.75

SOURCE: RESEARCH DEPARTMENT, FEDERAL RESERVE BANK OF PHILADELPHIA.  
SURVEY OF PROFESSIONAL FORECASTERS, SECOND QUARTER 2015.

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

MEAN PROBABILITY ATTACHED TO CORE CPI INFLATION:

	14Q4 TO 15Q4	15Q4 TO 16Q4
4 PERCENT OR MORE	0.07	0.50
3.5 TO 3.9 PERCENT	0.10	0.70
3.0 TO 3.4 PERCENT	1.18	2.91
2.5 TO 2.9 PERCENT	6.25	12.76
2.0 TO 2.4 PERCENT	25.15	32.11
1.5 TO 1.9 PERCENT	40.09	32.80
1.0 TO 1.4 PERCENT	17.39	11.62
0.5 TO 0.9 PERCENT	5.99	4.01
0.0 TO 0.4 PERCENT	2.11	1.79
WILL DECLINE	1.69	0.81

MEAN PROBABILITY ATTACHED TO CORE PCE INFLATION:

	14Q4 TO 15Q4	15Q4 TO 16Q4
4 PERCENT OR MORE	0.19	0.75
3.5 TO 3.9 PERCENT	0.20	0.81
3.0 TO 3.4 PERCENT	1.02	2.25
2.5 TO 2.9 PERCENT	3.46	8.91
2.0 TO 2.4 PERCENT	11.33	23.34
1.5 TO 1.9 PERCENT	35.47	35.34
1.0 TO 1.4 PERCENT	31.76	18.65
0.5 TO 0.9 PERCENT	12.67	7.06
0.0 TO 0.4 PERCENT	3.42	2.25
WILL DECLINE	0.49	0.64

SOURCE: RESEARCH DEPARTMENT, FEDERAL RESERVE BANK OF PHILADELPHIA.  
 SURVEY OF PROFESSIONAL FORECASTERS, SECOND QUARTER 2015.

TABLE SEVEN  
LONG-TERM (5-YEAR AND 10-YEAR) FORECASTS

ANNUAL AVERAGE OVER THE NEXT 5 YEARS: 2015-2019

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CPI INFLATION RATE		PCE INFLATION RATE	
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MINIMUM	1.00	MINIMUM	0.80
LOWER QUARTILE	1.80	LOWER QUARTILE	1.60
MEDIAN	2.00	MEDIAN	1.80
UPPER QUARTILE	2.20	UPPER QUARTILE	1.95
MAXIMUM	2.95	MAXIMUM	3.75
MEAN	2.00	MEAN	1.83
STD. DEVIATION	0.38	STD. DEVIATION	0.47
N	38	N	36
MISSING	6	MISSING	8

ANNUAL AVERAGE OVER THE NEXT 10 YEARS: 2015-2024

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CPI INFLATION RATE		PCE INFLATION RATE	
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MINIMUM	1.22	MINIMUM	1.22
LOWER QUARTILE	2.00	LOWER QUARTILE	1.80
MEDIAN	2.14	MEDIAN	1.98
UPPER QUARTILE	2.30	UPPER QUARTILE	2.14
MAXIMUM	3.60	MAXIMUM	3.90
MEAN	2.18	MEAN	2.00
STD. DEVIATION	0.40	STD. DEVIATION	0.43
N	38	N	36
MISSING	6	MISSING	8

SOURCE: RESEARCH DEPARTMENT, FEDERAL RESERVE BANK OF PHILADELPHIA.  
SURVEY OF PROFESSIONAL FORECASTERS, SECOND QUARTER 2015.