

# Survey of Professional Forecasters

November 28, 1994

## Economic Research Division

### FOURTH QUARTER 1994

#### The Outlook for Real GDP Growth Improves; The Inflation Outlook Is Little Changed

The outlook for real GDP growth in 1994 and 1995 is brighter now than it was three months ago, according to 30 forecasters surveyed by the Federal Reserve Bank of Philadelphia. The forecasters now predict real GDP will grow at a rate of 3.9 percent in 1994, up 0.2 percentage points from their forecast in the last survey. For 1995, the forecasters see real GDP growing at 2.9 percent, up 0.4 percentage points from the last survey. The unemployment rate will hold steady at 5.8 percent over the next four quarters and will fall to 5.7 percent in the fourth quarter of 1995.

The outlook for inflation, as measured by the Consumer Price Index, is little changed in the current survey. The forecasters see inflation averaging 2.9 percent in 1994, unchanged from their forecast in the last survey, and rising to 3.4 percent in 1995, up 0.1 percentage points compared with the last survey.

The forecasters are revising their interest-rate predictions. They now predict the 3-month Treasury-bill rate will average 4.3 percent in 1994 and 5.9 percent in 1995, up 0.2 and 1.0 percentage points, respectively, from their prediction in the last survey. The 10-year Treasury-bond rate will average 7.1 percent in 1994 and climb to 7.9 percent in 1995. The following table compares median forecasts for selected variables from the current survey with those from three months ago:

	Real GDP		CPI Inflation		3-month T-Bill Yield	
	Previous	New	Previous	New	Previous	New
<b>Quarterly data:</b>						
1994: Q4	2.6	3.2	3.3	3.2	4.7	5.2
1995: Q1	2.4	2.8	3.3	3.5	4.8	5.7
Q2	2.4	2.4	3.3	3.3	4.8	6.0
Q3	2.5	2.5	3.4	3.4	4.8	6.0
Q4	N.A.	2.4	N.A.	3.5	N.A.	5.9
<b>Annual average data:</b>						
1994	3.7	3.9	2.9	2.9	4.1	4.3
1995	2.5	2.9	3.3	3.4	4.9	5.9



### **Long-Term Inflation Expectations Continue to Hold Steady**

The forecasters are predicting that inflation, as measured by the Consumer Price Index, will average 3.5 percent over the next 10 years. The middle range of forecasts is 3.0 to 3.8 percent. This marks the sixth consecutive survey in which long-term inflation expectations are roughly 3.5 percent. The following table shows long-term inflation expectations for the current and previous six surveys.

#### **10-Year CPI Inflation Expectations**

1993:	Q2	3.70
	Q3	3.45
	Q4	3.45
1994:	Q1	3.45
	Q2	3.50
	Q3	3.48
	Q4	3.50

### **Low but Increasing Risk of a Negative Quarter**

The mean probability of a decline in real GDP over the next four quarters is lower now than in the last survey. The forecasters are assigning a probability of 2 percent to a decline in the current quarter, down 6 percentage points from the last survey. They see a rising chance of a decline in real GDP over the following four quarters. The following table compares the probabilities from the current survey with those from three months ago:

#### **Mean Probability of a Decline in Real GDP**

	<i>Previous</i>	<i>New</i>
1994: Q4	8.0	2.0
1995: Q1	13.0	8.0
Q2	16.0	13.0
Q3	17.0	16.0
Q4	N.A.	20.0

The Philadelphia Fed's Survey of Professional Forecasters was formerly conducted by the American Statistical Association (ASA) and the National Bureau of Economic Research (NBER) and was known as the ASA/NBER survey. The survey, which began in 1968, is conducted each quarter. The Federal Reserve Bank of Philadelphia, in cooperation with the NBER, assumed responsibility for the survey in June 1990.

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**SURVEY OF PROFESSIONAL FORECASTERS  
MAJOR MACROECONOMIC INDICATORS, 1994-95**

	1994 Q4	1995 Q1	1995 Q2	Q3	Q4	ANNUAL	
						FORECAST	AVERAGE
PERCENT GROWTH AT ANNUAL RATES							
1. REAL GDP (BILLIONS OF 1987 DOLLARS)	3.2	2.8	2.4	2.5	2.4	3.9	2.9
2. GDP IMPLICIT PRICE DEFULATOR (1987=100)	2.9	3.2	3.0	3.1	3.1	2.6	3.1
3. GROSS DOMESTIC PRODUCT (GDP) (\$ BILLIONS)	6.1	5.8	5.9	5.9	5.7	6.1	6.0
4. CONSUMER PRICE INDEX (CPI-U) (ANNUAL RATE)	3.2	3.5	3.3	3.4	3.5	2.9	3.4
VARIABLES IN LEVELS							
5. UNEMPLOYMENT RATE (PERCENT)	5.8	5.8	5.8	5.8	5.7	6.1	5.8
6. 3-MONTH TREASURY BILL RATE (PERCENT)	5.2	5.7	6.0	6.0	5.9	4.3	5.9
7. 10-YEAR TREASURY BOND YIELD (PERCENT)	7.9	8.1	8.0	7.9	7.7	7.1	7.9

SOURCE: RESEARCH DEPARTMENT, FEDERAL RESERVE BANK OF PHILADELPHIA, SURVEY OF PROFESSIONAL FORECASTERS, FOURTH QUARTER 1994.

NOTES: THE FIGURES ON EACH LINE ARE MEDIANS OF 30 INDIVIDUAL FORECASTS. NA = NOT APPLICABLE.  
FOR THE GDP IMPLICIT PRICE DEFULATOR AND CONSUMER PRICE INDEX, THE ANNUAL AVERAGE IS THE PERCENT CHANGE IN THE  
FOURTH QUARTER INDEX LEVEL FROM THE FOURTH QUARTER INDEX LEVEL OF THE PREVIOUS YEAR.

**SURVEY OF PROFESSIONAL FORECASTERS**

**Fourth Quarter 1994**

**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 Nov. 1; the tables do not reflect subsequent revisions to the data. All forecasts were received on or before November 18.

TABLE ONE

**MAJOR MACROECONOMIC INDICATORS, 1994-95  
MEDIAN OF FORECASTER PREDICTIONS**

	NUMBER OF FORE- CASTERS	ACTUAL 1994 Q3	1994 Q4	FORECASTS 1995				ACTUAL 1993	FORECAST 1994	FORECAST 1995
				Q1	Q2	Q3	Q4			
1. GROSS DOMESTIC PRODUCT (GDP) (\$ BILLIONS)	27	6775.9	6877.1	6974.5	7076.0	7178.0	7279.0	6343.3	6728.2	7128.8
2. GDP IMPLICIT PRICE DEFULATOR (1987=100)	28	126.4	127.3	128.3	129.3	130.3	131.3	123.5	126.2	129.9
3. CORPORATE PROFITS AFTER TAXES (\$ BILLIONS)	18	N.A.	333.0	334.4	340.3	343.5	345.9	289.2	321.0	342.6
4. UNEMPLOYMENT RATE (PERCENT)	27	6.0	5.8	5.8	5.8	5.8	5.7	N.A.	6.1	5.8
5. INDUSTRIAL PRODUCTION (1987=100)	28	118.4	119.6	120.6	121.3	122.2	123.2	110.9	117.4	121.9
6. NEW PRIVATE HOUSING STARTS (ANNUAL RATE, MILLIONS)	26	1.48	1.43	1.39	1.36	1.35	1.34	1.29	1.43	1.37
7. CONSUMER PRICE INDEX (CPI-U) (ANNUAL RATE)	28	3.6	3.2	3.5	3.3	3.4	3.5	2.7	2.8	3.4
8. 3-MONTH TREASURY BILL RATE (PERCENT)	28	4.48	5.20	5.72	6.01	6.00	5.95	3.00	4.25	5.93
9. AAA CORPORATE BOND YIELD (PERCENT)	24	8.17	8.70	8.84	8.85	8.70	8.70	7.22	8.00	8.73
10. 10-YEAR TREASURY BOND YIELD (PERCENT)	25	7.33	7.87	8.05	8.00	7.91	7.71	5.87	7.09	7.93

SOURCE: RESEARCH DEPARTMENT, FEDERAL RESERVE BANK OF PHILADELPHIA, SURVEY OF PROFESSIONAL FORECASTERS, FOURTH QUARTER '1994.

TABLE ONE CONTINUED

**MAJOR MACROECONOMIC INDICATORS, 1994-95  
MEDIAN OF FORECASTER PREDICTIONS**

	NUMBER OF FORE- CASTERS	ACTUAL 1994 Q3	1994 Q4	FORECASTS 1995				ACTUAL 1993	FORECAST 1994	FORECAST 1995
				Q1	Q2	Q3	Q4			
11. REAL GDP (BILLIONS OF 1987 DOLLARS)	29	5359.2	5401.6	5439.0	5471.1	5504.9	5537.9	5134.5	5333.9	5486.1
12. TOTAL CONSUMPTION EXPENDITURES (BILLIONS OF 1987 DOLLARS)	28	3583.9	3613.1	3638.3	3660.2	3679.9	3697.9	3458.7	3576.3	3668.6
13. NONRESIDENTIAL FIXED INVESTMENT (BILLIONS OF 1987 DOLLARS)	28	669.2	686.0	697.6	707.6	719.7	728.2	591.6	664.4	714.1
14. RESIDENTIAL FIXED INVESTMENT (BILLIONS OF 1987 DOLLARS)	28	229.5	230.6	229.8	228.9	227.4	227.4	213.0	231.1	227.6
15. FEDERAL GOVERNMENT PURCHASES (BILLIONS OF 1987 DOLLARS)	28	342.6	339.4	336.7	334.1	333.0	332.3	356.6	339.6	333.7
16. STATE AND LOCAL GOVT PURCHASES (BILLIONS OF 1987 DOLLARS)	28	587.8	591.0	595.3	599.2	603.2	606.5	573.1	585.0	601.5
17. CHANGE IN BUSINESS INVENTORIES (BILLIONS OF 1987 DOLLARS)	27	64.5	50.2	43.7	40.8	35.1	31.9	15.3	49.7	38.5
18. NET EXPORTS (BILLIONS OF 1987 DOLLARS)	27	-118.3	-115.0	-108.6	-103.3	-97.2	-94.3	-73.9	-112.3	-101.4

SOURCE: RESEARCH DEPARTMENT, FEDERAL RESERVE BANK OF PHILADELPHIA, SURVEY OF PROFESSIONAL FORECASTERS, FOURTH QUARTER 1994.

TABLE TWO

**MAJOR MACROECONOMIC INDICATORS, 1994-95  
PERCENTAGE CHANGES AT ANNUAL RATES**

	NUMBER OF FORE- CASTERS	Q3 94	Q4 94	Q1 TO 95	Q2 95	Q3 TO 95	Q4 95	1993 TO 1994
	Q4 94	Q1 95	Q2 95	Q3 95	Q4 95	Q4 95	1994 1995	
1. GROSS DOMESTIC PRODUCT (GDP) (\$ BILLIONS)	27	6.1	5.8	5.9	5.9	5.7	6.1	6.0
2. GDP IMPLICIT PRICE DEFULATOR (1987=100)	28	2.9	3.2	3.0	3.1	3.1	2.2	2.9
3. CORPORATE PROFITS AFTER TAXES (\$ BILLIONS)	18	2.1	1.7	7.2	3.9	2.7	11.0	6.7
4. UNEMPLOYMENT RATE (PERCENT)	27	-.2	.0	.0	.0	-.1	N.A.	-.3
5. INDUSTRIAL PRODUCTION (1987=100)	28	4.1	3.3	2.4	3.0	3.2	5.9	3.8
6. NEW PRIVATE HOUSING STARTS (ANNUAL RATE, MILLIONS)	26	-12.0	-11.0	-8.4	-2.0	-2.3	10.9	-4.5
7. CONSUMER PRICE INDEX (CPI-U) (ANNUAL RATE)	28	-.4	.3	-.2	-.1	.0	.0	.7
8. 3-MONTH TREASURY BILL RATE (PERCENT)	28	.72	.53	.29	-.01	-.05	1.25	1.68
9. AAA CORPORATE BOND YIELD (PERCENT)	24	.53	.14	.02	-.15	.00	.78	.73
10. 10-YEAR TREASURY BOND YIELD (PERCENT)	25	.54	.18	-.05	-.09	-.20	1.22	.84

NOTE: FIGURES FOR UNEMPLOYMENT RATE, PERCENT CHANGE IN CONSUMER PRICE INDEX, TREASURY BILL RATE, AAA CORPORATE BOND YIELD, AND 10-YEAR TREASURY BOND YIELD ARE CHANGES IN THESE RATES, IN PERCENTAGE POINTS.  
ALL OTHERS ARE PERCENTAGE CHANGES AT ANNUAL RATES.

SOURCE: RESEARCH DEPARTMENT, FEDERAL RESERVE BANK OF PHILADELPHIA, SURVEY OF PROFESSIONAL FORECASTERS, FOURTH QUARTER 1994.

TABLE TWO CONTINUED

**MAJOR MACROECONOMIC INDICATORS, 1994-95  
PERCENTAGE CHANGES AT ANNUAL RATES**

	NUMBER OF FORE- CASTERS	Q3 TO Q4	94 Q1	94 Q1	95 Q2	95 Q3	95 Q4	1993 TO 1994	1994 TO 1995
11. REAL GDP (BILLIONS OF 1987 DOLLARS)	29	3.2	2.8	2.4	2.5	2.4	3.9	2.9	
12. TOTAL CONSUMPTION EXPENDITURES (BILLIONS OF 1987 DOLLARS)	28	3.3	2.8	2.4	2.2	2.0	3.4	2.6	
13. NONRESIDENTIAL FIXED INVESTMENT (BILLIONS OF 1987 DOLLARS)	28	10.4	6.9	5.9	7.0	4.8	12.3	7.5	
14. RESIDENTIAL FIXED INVESTMENT (BILLIONS OF 1987 DOLLARS)	28	2.0	-1.5	-1.4	-2.7	.0	8.5	-1.5	
15. FEDERAL GOVERNMENT PURCHASES (BILLIONS OF 1987 DOLLARS)	28	-3.7	-3.1	-3.0	-1.4	-.8	-4.8	-1.7	
16. STATE AND LOCAL GOVT PURCHASES (BILLIONS OF 1987 DOLLARS)	28	2.2	2.9	2.6	2.7	2.2	2.1	2.8	
17. CHANGE IN BUSINESS INVENTORIES (BILLIONS OF 1987 DOLLARS)	27	-14.3	-6.5	-2.9	-5.7	-3.2	34.4	-11.2	
18. NET EXPORTS (BILLIONS OF 1987 DOLLARS)	27	3.3	6.4	5.3	6.1	2.9	-38.4	10.9	

NOTE: FIGURES FOR BUSINESS INVENTORIES AND NET EXPORTS ARE CHANGES IN BILLIONS OF 1987 DOLLARS.  
ALL OTHERS ARE PERCENTAGE CHANGES AT ANNUAL RATES.

SOURCE: RESEARCH DEPARTMENT, FEDERAL RESERVE BANK OF PHILADELPHIA, SURVEY OF PROFESSIONAL FORECASTERS, FOURTH QUARTER 1994.

TABLE THREE

## ESTIMATED PROBABILITY OF DECLINE IN REAL GDP

ESTIMATED PROBABILITY (CHANCES IN 100)	NUMBER OF FORECASTERS					
	Q3 TO Q4	Q4 TO Q1	Q1 TO Q2	Q2 TO Q3	Q3 TO Q4	Q4 TO Q5
10 OR LESS	26	22	14	11	9	
11 TO 20	1	3	9	10	7	
21 TO 30	0	2	2	5	5	8
31 TO 40	0	0	2	0	0	2
41 TO 50	0	0	0	1	1	1
51 TO 60	0	0	0	0	0	0
61 TO 70	0	0	0	0	0	0
71 TO 80	0	0	0	0	0	0
81 TO 90	0	0	0	0	0	0
91 AND OVER	0	0	0	0	0	0
NOT REPORTING	3	3	3	3	3	3
MEDIAN PROBABILITY	0	10	10	15	15	20
MEAN PROBABILITY	2	8	13	16	16	20

NOTE: TOTAL NUMBER OF FORECASTERS REPORTING IS 27.

SOURCE: RESEARCH DEPARTMENT, FEDERAL RESERVE BANK OF PHILADELPHIA, SURVEY OF PROFESSIONAL FORECASTERS, FOURTH QUARTER 1994.

TABLE FOUR

**MEAN PROBABILITY OF CHANGES IN GDP AND PRICES  
1993-94 AND 1994-95**

**MEAN PROBABILITY ATTACHED TO POSSIBLE  
PERCENT CHANGES IN REAL GDP:**

	1993-94	1994-95
6.0 OR MORE	.48	1.00
5.0 TO 5.9	3.26	1.78
4.0 TO 4.9	27.73	8.26
3.0 TO 3.9	63.30	30.98
2.0 TO 2.9	4.29	42.14
1.0 TO 1.9	.56	11.07
0.0 TO 0.9	.24	3.10
-1.0 TO -0.1	.11	.98
-2.0 TO -1.1	.04	.37
LESS THAN -2.0	.00	.31

**MEAN PROBABILITY ATTACHED TO POSSIBLE  
PERCENT CHANGES IN GDP IMPLICIT PRICE DEFULATOR:**

	1993-94	1994-95
8.0 OR MORE	.00	.07
7.0 TO 7.9	.04	.16
6.0 TO 6.9	.30	.73
5.0 TO 5.9	.23	1.45
4.0 TO 4.9	1.36	7.87
3.0 TO 3.9	11.19	39.44
2.0 TO 2.9	74.44	40.31
1.0 TO 1.9	11.99	7.78
0.0 TO 0.9	.47	1.67
WILL DECLINE	.00	.52

NOTE: TOTAL NUMBER OF FORECASTERS REPORTING IS 27.

SOURCE: RESEARCH DEPARTMENT, FEDERAL RESERVE BANK OF PHILADELPHIA, SURVEY OF PROFESSIONAL FORECASTERS, FOURTH QUARTER 1994.

TABLE FIVE  
LONG-TERM (10 YEAR) FORECASTS

SERIES: CPI INFLATION RATE	
STATISTIC	
MINIMUM	2.800
LOWER QUARTILE	3.000
MEDIAN	3.500
UPPER QUARTILE	3.813
MAXIMUM	5.000
MEAN	3.487
STD. DEV.	.487
N	26
MISSING	4

SOURCE: RESEARCH DEPARTMENT, FEDERAL RESERVE BANK OF PHILADELPHIA, SURVEY OF PROFESSIONAL FORECASTERS, FOURTH QUARTER 1994.