

# Survey of Professional Forecasters

November 29, 1993

## Economic Research Division

### FOURTH QUARTER 1993

#### **Stronger Growth for the Remainder of 1993 Predicted; Inflation Outlook Improves**

According to 34 forecasters surveyed by the Federal Reserve Bank of Philadelphia, the short-term outlook for economic growth has improved since last quarter's survey. The forecasters now see real GDP growing at 2.8 percent in 1993, up 0.4 percentage points from the last survey. Average growth over 1994 is also expected to be 2.8 percent, unchanged from the previous survey. Stronger fourth quarter growth will not affect the unemployment rate, according to the forecasters. They see the unemployment rate continuing to average 6.9 percent in 1993 and 6.6 percent in 1994.

The CPI inflation outlook through 1994 has improved from three months ago as well. Over the next five quarters, inflation is seen holding steady at 3.0 percent, down from 3.3 percent in the last survey. Inflation is expected to average 2.9 percent in 1993 and 3.0 percent in 1994, both down 0.2 percentage points from the last survey.

The forecasters also see lower interest rates than those in last quarter's survey, particularly in 1994. The 10-year Treasury bond is expected to yield 5.6 percent in the fourth quarter of this year and to increase to 5.8 percent by the end of 1994.

The following table compares median forecasts for selected variables from the current survey with those from three months ago:

	Real GDP		CPI Inflation		10-yr. T-Bond Yield	
	Previous	New	Previous	New	Previous	New
<i>Quarterly data:</i>						
1993: Q4	3.2	3.5	3.3	3.0	5.8	5.6
1994: Q1	2.7	2.9	3.3	3.0	6.0	5.6
Q2	2.9	2.5	3.3	3.0	6.0	5.6
Q3	3.0	3.0	3.3	3.0	6.0	5.7
Q4	N.A.	2.7	N.A.	3.0	N.A.	5.8
<i>Annual average data:</i>						
1993	2.4	2.8	3.1	2.9	6.0	5.9
1994	2.8	2.8	3.2	3.0	6.0	5.7



FEDERAL  
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### **Forecasters Also See Lower Long-Term Inflation**

The median forecast for the average inflation rate (based on the Consumer Price Index) for the next 10 years dropped to 3.45 percent, from 3.7 percent in the last survey. The middle half of the forecasts are in the range of 3.0 percent to 3.5 percent.

### **Slightly Higher Risk of a Negative Quarter**

Forecasters continue to see only a slight chance of a decline in real GDP in the short-term. However, those probabilities are a bit higher than in the previous forecast, as the following table shows:

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

	<i>Second Quarter 1993 Survey</i>	<i>Third Quarter 1993 Survey</i>
1993: Q3	7.0	7.0
Q4	9.0	10.0
1994: Q1	12.0	14.0
Q2	14.0	16.0
Q3	N.A.	15.0

### **Impact of Midwest Flooding Expected to Be Small**

The forecasters see Midwest weather conditions having only a limited effect on output and inflation over the next two years, with most of the impact concentrated in the remainder of 1993. Of those who expect an effect, most report adjusting their CPI inflation forecast upward by 0.1 to 0.2 percentage points for 1993, while adjusting downward their forecasts for real GDP growth in 1993 by about the same amount.

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, 1993-94**

	1993 Q4	1994 Q1	Q2	Q3	Q4	ANNUAL AVERAGE	
						1993	1994
<b>PERCENT GROWTH AT ANNUAL RATES</b>							
1. REAL GDP (BILLIONS OF 1987 DOLLARS)	3.5	2.9	2.5	3.0	2.7	2.8	2.8
2. GDP IMPLICIT PRICE DEFULATOR (1987=100)	2.6	2.6	2.9	3.0	2.9	2.5	2.9
3. GROSS DOMESTIC PRODUCT (GDP) (\$ BILLIONS)	6.2	5.6	5.7	5.9	5.7	5.5	5.5
4. CONSUMER PRICE INDEX (CPI-U) (ANNUAL RATE)	3.0	3.0	3.0	3.0	3.0	2.9	3.0
<b>VARIABLES IN LEVELS</b>							
5. UNEMPLOYMENT RATE (PERCENT)	6.7	6.6	6.6	6.5	6.4	6.9	6.6
6. 3-MONTH TREASURY BILL RATE (PERCENT)	3.1	3.1	3.2	3.4	3.5	3.0	3.3
7. 10-YEAR TREASURY BOND YIELD (PERCENT)	5.6	5.6	5.6	5.7	5.8	5.9	5.7

SOURCE: RESEARCH DEPARTMENT, FEDERAL RESERVE BANK OF PHILADELPHIA, SURVEY OF PROFESSIONAL FORECASTERS, FOURTH QUARTER 1993.

NOTES: THE FIGURES ON EACH LINE ARE MEDIANS OF 34 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 1993**

**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 Nov. 23.

TABLE ONE

**MAJOR MACROECONOMIC INDICATORS, 1993-94  
MEDIAN OF FORECASTER PREDICTIONS**

	NUMBER OF FORE- CASTERS	ACTUAL 1993 Q3	1994		FORECASTS			ACTUAL 1992	FORECAST 1993	FORECAST 1994
			Q4	Q1	Q2	Q3	Q4			
1. GROSS DOMESTIC PRODUCT (GDP) (\$ BILLIONS)	32	6396.3	6493.2	6582.1	6674.4	6770.8	6864.5	6038.5	6370.0	6721.8
2. GDP IMPLICIT PRICE DEFULATOR (1987=100)	34	124.5	125.3	126.1	127.0	127.9	128.9	121.1	124.3	127.5
3. CORPORATE PROFITS AFTER TAXES (\$ BILLIONS)	25	N.A.	280.0	288.0	291.4	300.1	300.1	249.1	271.4	294.8
4. UNEMPLOYMENT RATE (PERCENT)	34	6.7	6.7	6.6	6.6	6.5	6.4	7.4	6.9	6.6
5. INDUSTRIAL PRODUCTION (1987=100)	31	110.9	112.1	113.3	114.2	115.1	116.2	106.5	110.8	114.7
6. NEW PRIVATE HOUSING STARTS (ANNUAL RATE, MILLIONS)	33	1.30	1.35	1.36	1.37	1.40	1.40	1.20	1.26	1.38
7. CONSUMER PRICE INDEX (CPI-U) (ANNUAL RATE)	34	1.2	3.0	3.0	3.0	3.0	3.0	3.1	2.9	3.1
8. 3-MONTH TREASURY BILL RATE (PERCENT)	33	3.00	3.08	3.10	3.20	3.40	3.55	3.43	3.00	3.33
9. AAA CORPORATE BOND YIELD (PERCENT)	29	6.89	6.80	6.80	6.85	6.97	7.00	8.14	7.20	6.95
10. 10-YEAR TREASURY BOND YIELD (PERCENT)	31	5.61	5.60	5.60	5.63	5.70	5.79	7.01	5.88	5.65

SOURCE: RESEARCH DEPARTMENT, FEDERAL RESERVE BANK OF PHILADELPHIA, SURVEY OF PROFESSIONAL FORECASTERS, FOURTH QUARTER 1993.

TABLE ONE CONTINUED

**MAJOR MACROECONOMIC INDICATORS, 1993-94  
MEDIAN OF FORECASTER PREDICTIONS**

	NUMBER OF FORE- CASTERS	ACTUAL 1993				FORECASTS 1994			ACTUAL 1992	FORECAST 1993	FORECAST 1994
		Q2	Q3	Q4	Q1	Q2	Q3	Q3			
11. REAL GDP (BILLIONS OF 1987 DOLLARS)	34	5019.5	5058.0	5098.1	5132.0	5168.8	5207.0	4922.6	5043.2	5186.9	
12. TOTAL CONSUMPTION EXPENDITURES (BILLIONS OF 1987 DOLLARS)	34	3398.1	3422.3	3445.5	3469.2	3491.5	3508.9	3314.0	3406.8	3497.0	
13. NONRESIDENTIAL FIXED INVESTMENT (BILLIONS OF 1987 DOLLARS)	34	564.9	572.0	579.9	585.5	593.9	600.1	515.0	565.5	596.3	
14. RESIDENTIAL FIXED INVESTMENT (BILLIONS OF 1987 DOLLARS)	34	198.0	202.8	207.3	210.3	213.8	215.0	192.6	202.8	214.6	
15. FEDERAL GOVERNMENT PURCHASES (BILLIONS OF 1987 DOLLARS)	34	354.3	353.7	351.9	349.4	347.7	346.4	375.6	354.8	347.6	
16. STATE AND LOCAL GOVT PURCHASES (BILLIONS OF 1987 DOLLARS)	34	565.8	568.1	571.4	574.0	576.8	578.0	562.2	566.8	576.4	
17. CHANGE IN BUSINESS INVENTORIES (BILLIONS OF 1987 DOLLARS)	33	8.2	11.7	15.0	15.0	16.0	18.3	5.0	17.4	17.4	
18. NET EXPORTS (BILLIONS OF 1987 DOLLARS)	32	-69.9	-70.9	-71.0	-69.9	-69.0	-67.4	-41.8	-70.4	-68.3	

SOURCE: RESEARCH DEPARTMENT, FEDERAL RESERVE BANK OF PHILADELPHIA, SURVEY OF PROFESSIONAL FORECASTERS, THIRD QUARTER 1993.

TABLE TWO

**MAJOR MACROECONOMIC INDICATORS, 1993-94  
PERCENTAGE CHANGES AT ANNUAL RATES**

	NUMBER OF FORE- CASTERS	Q3 T0 Q4	93 T0 Q3	Q4 T0 Q4	93 T0 Q4	Q1 T0 Q2	94 T0 Q4	Q2 T0 Q3	94 T0 Q4	Q3 T0 Q4	94 T0 Q4	1992 T0 1993	1993 T0 1994
1. GROSS DOMESTIC PRODUCT (GDP) (\$ BILLIONS)	32	6.2	5.6	5.7	5.9	5.7	5.7	5.7	5.5	5.5	5.5		
2. GDP IMPLICIT PRICE DEFULATOR (1987=100)	34	2.6	2.6	2.9	3.0	2.9	2.9	2.9	2.6	2.6	2.6		
3. CORPORATE PROFITS AFTER TAXES (\$ BILLIONS)	25	12.6	11.9	4.8	12.5	.0	.0	.0	9.0	8.6			
4. UNEMPLOYMENT RATE (PERCENT)	34	.0	-.1	.0	-.1	-.1	-.1	-.1	-.5	-.3			
5. INDUSTRIAL PRODUCTION (1987=100)	31	4.5	4.2	3.3	3.2	3.9	4.0	3.9	4.0	3.5			
6. NEW PRIVATE HOUSING STARTS (ANNUAL RATE, MILLIONS)	33	16.7	3.0	3.0	8.1	-.3	5.0	9.9					
7. CONSUMER PRICE INDEX (CPI-U) (ANNUAL RATE)	34	1.8	.0	.0	.0	.0	.0	.0	-.2	.2			
8. 3-MONTH TREASURY BILL RATE (PERCENT)	33	-.08	-.02	.10	.20	.15	-.43	.33					
9. AAA CORPORATE BOND YIELD (PERCENT)	29	-.09	-.00	.05	.12	.03	-.94	-.24					
10. 10-YEAR TREASURY BOND YIELD (PERCENT)	31	-.01	.00	.03	.07	.09	-1.13	-.23					

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 1993.

TABLE TWO CONTINUED

**MAJOR MACROECONOMIC INDICATORS, 1993-94  
PERCENTAGE CHANGES AT ANNUAL RATES**

	NUMBER OF FORE- CASTERS	Q2 '93 q3 '93	Q3 '93 q4 '93	Q4 '93 q1 '94	Q1 '94 q2 '94	Q2 '94 q3 '94	Q3 '94 q4 '94	1992 TO 1993	1993 TO 1994
11. REAL GDP (BILLIONS OF 1987 DOLLARS)	34	3.1	3.2	2.7	2.9	3.0	2.4	2.8	
12. TOTAL CONSUMPTION EXPENDITURES (BILLIONS OF 1987 DOLLARS)	34	2.9	2.7	2.8	2.6	2.0	2.8	2.6	
13. NONRESIDENTIAL FIXED INVESTMENT (BILLIONS OF 1987 DOLLARS)	34	5.1	5.6	3.9	5.9	4.2	9.8	5.4	
14. RESIDENTIAL FIXED INVESTMENT (BILLIONS OF 1987 DOLLARS)	34	10.1	9.2	5.9	6.8	2.3	5.3	5.9	
15. FEDERAL GOVERNMENT PURCHASES (BILLIONS OF 1987 DOLLARS)	34	-.6	-2.1	-2.8	-1.9	-1.5	-5.6	-2.0	
16. STATE AND LOCAL GOVT PURCHASES (BILLIONS OF 1987 DOLLARS)	34	1.6	2.4	1.8	2.0	.8	.8	1.7	
17. CHANGE IN BUSINESS INVENTORIES (BILLIONS OF 1987 DOLLARS)	33	3.5	3.3	.0	1.0	2.3	12.4	.0	
18. NET EXPORTS (BILLIONS OF 1987 DOLLARS)	32	-1.0	-.1	1.1	.9	1.6	-28.6	2.1	

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, THIRD QUARTER 1993.

TABLE THREE  
ESTIMATED PROBABILITY OF DECLINE IN REAL GDP

ESTIMATED PROBABILITY (CHANCES IN 100)	NUMBER OF FORECASTERS									
	Q3 TO Q4	93 93	Q4 TO Q1	93 94	Q1 TO Q2	94 94	Q2 TO Q3	94 94	Q3 TO Q4	94 94
10 OR LESS	31	26	19	18	18	18	18	18	18	18
11 TO 20	0	5	7	8	8	7	7	7	7	7
21 TO 30	0	1	4	5	5	5	5	5	5	6
31 TO 40	0	0	1	1	1	1	1	1	1	1
41 TO 50	1	0	1	0	0	0	0	0	0	0
51 TO 60	0	0	0	0	0	0	0	0	0	0
61 TO 70	0	0	0	0	0	0	0	0	0	0
71 TO 80	0	0	0	0	0	0	0	0	0	0
81 TO 90	0	0	0	0	0	0	0	0	0	0
91 AND OVER	0	0	0	0	0	0	0	0	0	0
NOT REPORTING	2	2	2	2	2	2	2	2	2	2
MEDIAN PROBABILITY	0	5	10	10	10	10	10	10	10	10
MEAN PROBABILITY	3	8	13	13	13	13	13	13	13	13

NOTE: TOTAL NUMBER OF FORECASTERS REPORTING IS 32.

SOURCE: RESEARCH DEPARTMENT, FEDERAL RESERVE BANK OF PHILADELPHIA, SURVEY OF PROFESSIONAL FORECASTERS, FOURTH QUARTER 1993.

TABLE FOUR

MEAN PROBABILITY OF CHANGES IN GDP AND PRICES  
1992-93 AND 1993-94

MEAN PROBABILITY ATTACHED TO POSSIBLE  
PERCENT CHANGES IN REAL GDP:

	1992-93	1993-94
6.0 OR MORE	.72	1.03
5.0 TO 5.9	1.81	2.17
4.0 TO 4.9	1.42	4.13
3.0 TO 3.9	10.88	26.20
2.0 TO 2.9	62.84	44.14
1.0 TO 1.9	15.33	14.57
0.0 TO 0.9	5.60	4.90
-1.0 TO -0.1	1.09	2.44
-2.0 TO -1.1	.16	.29
LESS THAN -2.0	.13	

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

	1992-93	1993-94
8.0 OR MORE	.00	.00
7.0 TO 7.9	.00	.00
6.0 TO 6.9	.00	.03
5.0 TO 5.9	.27	.92
4.0 TO 4.9	3.06	6.97
3.0 TO 3.9	31.45	42.28
2.0 TO 2.9	54.67	39.19
1.0 TO 1.9	7.35	8.11
0.0 TO 0.9	3.15	2.27
WILL DECLINE	.03	.23

NOTE: TOTAL NUMBER OF FORECASTERS REPORTING IS 32.

SOURCE: RESEARCH DEPARTMENT, FEDERAL RESERVE BANK OF PHILADELPHIA, SURVEY OF PROFESSIONAL FORECASTERS, THIRD QUARTER 1993.

TABLE FIVE  
LONG-TERM (10 YEAR) FORECASTS

SERIES: CPI INFLATION RATE	
STATISTIC	
MINIMUM	2.500
LOWER QUARTILE	3.000
MEDIAN	3.450
UPPER QUARTILE	3.800
MAXIMUM	6.300
MEAN	3.555
STD. DEV.	.856
N	32
MISSING	2

SOURCE: RESEARCH DEPARTMENT, FEDERAL RESERVE BANK OF PHILADELPHIA, SURVEY OF PROFESSIONAL FORECASTERS, FOURTH QUARTER 1993.