Survey of
PROFESSIONAL
FORECASTERS

Federal Reserve Bank of Philadelphia

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FOURTH QUARTER 1996

Forecasters See Little Reason to Change Their Outlook for Annual Output Growth and Inflation

Real GDP will expand at an annual rate of 2.1 percent in the fourth quarter, according to 37 forecasters surveyed by the Federal Reserve Bank of Philadelphia. The growth rate will remain at 2 percent or slightly above in each quarter of 1997. On a year-over-year basis, the outlook for real GDP growth is virtually unchanged from that in last quarter's survey: the forecasters continue to expect growth of 2.3 percent in 1996. The economy will expand at an annual rate of 2.3 percent in 1997, up 0.1 percentage points from last quarter's survey.

The forecasters see little evidence of a buildup in price pressure. Inflation, as measured by the rate of change in the Consumer Price Index, will average roughly 3.0 percent at an annual rate in each of the next five quarters. Measured on a fourth-quarter-over-fourth-quarter basis, inflation will average 3.1 percent in 1996, down slightly from 3.2 percent in last quarter's survey. The forecasters expect inflation to average 3.0 percent in 1997, unchanged from last quarter's survey.

A rising path for the unemployment rate is accompanying the outlook for steady output growth and inflation. The forecasters expect the unemployment rate to drift upward to 5.4 percent by the second quarter and to hold steady at that rate over the remainder of 1997. Over this year and the next, the unemployment rate will average 5.4 percent, down 0.1 percentage points from last quarter's survey.

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

	Real GDP		*CPI Inflation*		*Unemployment Rate*	
	Previous	*New*	*Previous*	*New*	*Previous*	*New*
Quarterly data:						
1996: Q4	2.4	2.1	2.9	3.0	5.4	5.2
1997: Q1	2.1	2.4	3.1	3.1	5.4	5.3
Q2	1.9	2.1	3.0	3.0	5.5	5.4
Q3	1.8	2.0	3.0	3.0	5.6	5.4
Q4	N.A.	2.3	N.A.	3.0	N.A.	5.4
Annual average data:						
1996	2.3	2.3	3.2	3.1	5.5	5.4
1997	2.2	2.3	3.0	3.0	5.5	5.4

Economic Research Division Ten Independence Mall, Philadelphia, PA 19106-1574

Forecasters Also See No Change on the Long-Term Inflation Front

The forecasters expect long-term inflation, as measured by the rate of change in the Consumer Price Index, to average 3.0 percent over the next 10 years. The middle range of forecasts is 2.63 to 3.24 percent. Long-term inflation expectations, as measured in this survey, are now unchanged for the fourth consecutive survey.

Forecasters Are Revising Downward the Risk of a Negative Quarter

Although the forecasters see the chance of a negative quarter rising over the next five quarters (from 8 percent in the current quarter to 23 percent in the fourth), the possibility of a negative quarter is lower now than it was in the last survey. The following table compares the probabilities in the current survey with those from the last:

Mean Probability of a Decline in Real GDP

		Previous	*New*
1996:	Q4	10.0	8.0
1997:	Q1	16.0	11.0
	Q2	20.0	16.0
	Q3	23.0	21.0
	Q4	N.A.	23.0

Some Flattening of the Yield Curve Is Seen in 1997

The forecasters expect a hike in short-term interest rates, as measured by the rate on three-month Treasury bills, of 0.2 percentage points in the first quarter of 1997. In contrast, long-term rates, as measured by the rate on 10-year Treasury bonds, are expected to hold steady at 6.4 percent over the next three quarters. For this year and the next, short-term rates are expected to average 5.0 and 5.2 percentage points; long-term rates are expected to average 6.5 and 6.4 percentage points over the same period. Thus, on an annual-average basis, the forecasters expect the spread between long- and short-term rates to narrow by 0.3 percentage points in 1997. The following table shows the current forecast for three-month Treasury bill rates and 10-year Treasury bond rates:

Forecast for Short- and Long-Term Interest Rates

	1996	1997				*Annual Average*	
	Q4	Q1	Q2	Q3	Q4	1996	1997
3-Month Treasury Bills	5.0	5.2	5.2	5.2	5.1	5.0	5.2
10-Year Treasury Bonds	6.4	6.4	6.4	6.3	6.3	6.5	6.4
Spread (10-Year - 3-Month)	1.4	1.2	1.2	1.1	1.2	1.5	1.2

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.

For further information about the Survey of Professional Forecasters, contact:
Dean Croushore, Assistant Vice President and Economist, Federal Reserve Bank of Philadelphia,
Ten Independence Mall, Philadelphia, PA 19106 (215) 574-3809

To subscribe to the survey, contact the Research Department's Publications Desk at (215) 574-6428. This three-page writeup contains partial results of the survey. More detailed tables are available. These tables can be accessed on the Internet at: http://www.phil.frb.org/econ/spf/spfpage.html.

FEDERAL RESERVE BANK OF PHILADELPHIA

SURVEY OF PROFESSIONAL FORECASTERS
MAJOR MACROECONOMIC INDICATORS, 1996-97

	1996 Q4	1997 Q1	Q2	Q3	Q4	ANNUAL AVERAGE	
	FORECAST					1996	1997
PERCENT GROWTH AT ANNUAL RATES							
1. REAL GDP (BILLIONS, CHAIN WEIGHTED)	2.1	2.4	2.1	2.0	2.3	2.3	2.3
2. GDP PRICE INDEX (1992=100)	2.2	2.6	2.5	2.6	2.6	2.1	2.5
3. GROSS DOMESTIC PRODUCT (GDP) ($ BILLIONS)	4.8	5.1	4.6	4.4	4.7	4.4	4.7
4. CONSUMER PRICE INDEX (CPI-U) (ANNUAL RATE)	3.0	3.1	3.0	3.0	3.0	3.1	3.0
VARIABLES IN LEVELS							
5. UNEMPLOYMENT RATE (PERCENT)	5.2	5.3	5.4	5.4	5.4	5.4	5.4
6. 3-MONTH TREASURY BILL RATE (PERCENT)	5.0	5.2	5.2	5.2	5.1	5.0	5.2
7. 10-YEAR TREASURY BOND YIELD (PERCENT)	6.4	6.4	6.4	6.3	6.3	6.5	6.4

SOURCE: RESEARCH DEPARTMENT, FEDERAL RESERVE BANK OF PHILADELPHIA, SURVEY OF PROFESSIONAL FORECASTERS, FOURTH QUARTER 1996.

NOTES: THE FIGURES ON EACH LINE ARE MEDIANS OF 37 INDIVIDUAL FORECASTS. NA = NOT APPLICABLE.
FOR THE GDP PRICE INDEX 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 1996

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 October 31; the tables do not reflect subsequent revisions to the data. All forecasts were received on or before November 18.

TABLE ONE

MAJOR MACROECONOMIC INDICATORS, 1996-97
MEDIANS OF FORECASTER PREDICTIONS

	NUMBER OF FORE-CASTERS	ACTUAL 1996 Q3	FORECASTS 1996 Q4	FORECASTS 1997 Q1	FORECASTS 1997 Q2	FORECASTS 1997 Q3	FORECASTS 1997 Q4	ACTUAL 1995	FORECAST 1996	FORECAST 1997
1. GROSS DOMESTIC PRODUCT ($ BILLIONS)	35	7616.0	7705.5	7802.5	7891.0	7976.0	8068.4	7253.8	7574.2	7932.5
2. GDP PRICE INDEX (1992=100)	33	110.1	110.7	111.4	112.1	112.8	113.5	107.6	109.9	112.5
3. CORPORATE PROFITS AFTER TAXES ($ BILLIONS)	26	N.A.	412.5	413.9	415.5	419.2	420.6	380.2	407.8	418.0
4. UNEMPLOYMENT RATE (PERCENT)	36	5.2	5.2	5.3	5.4	5.4	5.4	5.6	5.4	5.4
5. INDUSTRIAL PRODUCTION (1987=100)	33	126.8	127.4	128.2	129.0	129.8	130.3	121.9	125.7	129.3
6. NEW PRIVATE HOUSING STARTS (ANNUAL RATE, MILLIONS)	36	1.48	1.43	1.42	1.41	1.39	1.38	1.35	1.47	1.40
7. CONSUMER PRICE INDEX (CPI-U) (ANNUAL RATE)	37	2.3	3.0	3.1	3.0	3.0	3.0	2.7	3.0	3.0
8. 3-MONTH TREASURY BILL RATE (PERCENT)	35	5.10	5.04	5.15	5.20	5.20	5.10	5.49	5.02	5.20
9. AAA CORPORATE BOND YIELD (PERCENT)	31	7.59	7.35	7.39	7.40	7.35	7.31	7.59	7.40	7.38
10. 10-YEAR TREASURY BOND YIELD (PERCENT)	34	6.78	6.42	6.40	6.40	6.31	6.29	6.58	6.46	6.38

SOURCE: RESEARCH DEPARTMENT, FEDERAL RESERVE BANK OF PHILADELPHIA, SURVEY OF PROFESSIONAL FORECASTERS, FOURTH QUARTER 1996.

TABLE ONE CONTINUED

MAJOR MACROECONOMIC INDICATORS, 1996-97
MEDIANS OF FORECASTER PREDICTIONS

	NUMBER OF FORE-CASTERS	ACTUAL 1996 Q3	FORECASTS 1996 Q4	1997 Q1	1997 Q2	1997 Q3	1997 Q4	ACTUAL 1995	FORECAST 1996	FORECAST 1997
11. REAL GDP (BILLIONS, CHAIN WEIGHTED)	37	6929.7	6965.8	7008.0	7044.0	7079.1	7119.0	6742.9	6900.2	7058.2
12. TOTAL CONSUMPTION EXPENDITURES (BILLIONS, CHAIN WEIGHTED)	37	4692.8	4724.0	4754.0	4777.0	4797.8	4826.8	4577.8	4688.7	4785.9
13. NONRESIDENTIAL FIXED INVESTMENT (BILLIONS, CHAIN WEIGHTED)	37	776.6	786.5	797.9	806.0	815.3	821.2	714.3	764.3	810.3
14. RESIDENTIAL FIXED INVESTMENT (BILLIONS, CHAIN WEIGHTED)	37	277.3	277.0	275.9	275.2	275.0	275.6	262.8	276.9	276.0
15. FEDERAL GOVERNMENT C & I (BILLIONS, CHAIN WEIGHTED)	36	468.7	466.2	465.1	463.3	462.3	459.8	472.3	467.8	462.6
16. STATE AND LOCAL GOVT C & I (BILLIONS, CHAIN WEIGHTED)	36	805.9	810.4	814.5	818.6	821.8	825.3	788.6	803.6	819.5
17. CHANGE IN BUSINESS INVENTORIES (BILLIONS, CHAIN WEIGHTED)	37	39.6	27.6	25.0	26.0	26.3	26.0	33.1	17.9	25.9
18. NET EXPORTS (BILLIONS, CHAIN WEIGHTED)	37	-132.2	-125.0	-122.4	-121.4	-118.8	-116.5	-107.6	-119.0	-119.1

SOURCE: RESEARCH DEPARTMENT, FEDERAL RESERVE BANK OF PHILADELPHIA, SURVEY OF PROFESSIONAL FORECASTERS, FOURTH QUARTER 1996.

TABLE TWO

MAJOR MACROECONOMIC INDICATORS, 1996-97
PERCENTAGE CHANGES AT ANNUAL RATES

	NUMBER OF FORE-CASTERS	Q3 96 TO Q4 96	Q4 96 TO Q1 97	Q1 97 TO Q2 97	Q2 97 TO Q3 97	Q3 97 TO Q4 97	1995 TO 1996	1996 TO 1997
1. GROSS DOMESTIC PRODUCT (GDP) ($ BILLIONS)	35	4.8	5.1	4.6	4.4	4.7	4.4	4.7
2. GDP PRICE INDEX (1992=100)	33	2.2	2.6	2.5	2.6	2.6	2.1	2.4
3. CORPORATE PROFITS AFTER TAXES ($ BILLIONS)	26	8.7	1.3	1.7	3.6	1.4	7.3	2.5
4. UNEMPLOYMENT RATE (PERCENT)	36	.0	.1	.1	.0	.0	-.2	.0
5. INDUSTRIAL PRODUCTION (1987=100)	33	2.0	2.4	2.5	2.5	1.5	3.1	2.9
6. NEW PRIVATE HOUSING STARTS (ANNUAL RATE, MILLIONS)	36	-12.2	-3.2	-4.0	-4.3	-1.6	8.6	-4.8
7. CONSUMER PRICE INDEX (CPI-U) (ANNUAL RATE)	37	.7	.1	-.1	.0	.0	.3	.0
8. 3-MONTH TREASURY BILL RATE (PERCENT)	35	-.06	.11	.05	.00	-.10	-.47	.18
9. AAA CORPORATE BOND YIELD (PERCENT)	31	-.24	.04	.01	-.05	-.04	-.19	-.02
10. 10-YEAR TREASURY BOND YIELD (PERCENT)	34	-.36	-.02	.00	-.09	-.02	-.12	-.08

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 1996.

TABLE TWO CONTINUED

MAJOR MACROECONOMIC INDICATORS, 1996-97
PERCENTAGE CHANGES AT ANNUAL RATES

	NUMBER OF FORE-CASTERS	Q3 96 TO Q4 96	Q4 96 TO Q1 97	Q1 97 TO Q2 97	Q2 97 TO Q3 97	Q3 97 TO Q4 97	1995 TO 1996	1996 TO 1997
11. REAL GDP (BILLIONS, CHAIN WEIGHTED)	37	2.1	2.4	2.1	2.0	2.3	2.3	2.3
12. TOTAL CONSUMPTION EXPENDITURES (BILLIONS, CHAIN WEIGHTED)	37	2.7	2.6	2.0	1.8	2.4	2.4	2.1
13. NONRESIDENTIAL FIXED INVESTMENT (BILLIONS, CHAIN WEIGHTED)	37	5.2	5.9	4.1	4.7	2.9	7.0	6.0
14. RESIDENTIAL FIXED INVESTMENT (BILLIONS, CHAIN WEIGHTED)	37	-.4	-1.6	-1.0	-.3	.9	5.4	-.3
15. FEDERAL GOVERNMENT C & I (BILLIONS, CHAIN WEIGHTED)	36	-2.1	-.9	-1.5	-.8	-2.2	-1.0	-1.1
16. STATE AND LOCAL GOVT C & I (BILLIONS, CHAIN WEIGHTED)	36	2.3	2.0	2.0	1.6	1.7	1.9	2.0
17. CHANGE IN BUSINESS INVENTORIES (BILLIONS, CHAIN WEIGHTED)	37	-12.0	-2.6	1.0	.3	-.3	-15.2	8.0
18. NET EXPORTS (BILLIONS, CHAIN WEIGHTED)	37	7.2	2.6	1.0	2.6	2.3	-11.4	-.1

NOTE: FIGURES FOR BUSINESS 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, FOURTH QUARTER 1996.

TABLE THREE

ESTIMATED PROBABILITY OF DECLINE IN REAL GDP

ESTIMATED PROBABILITY (CHANCES IN 100)	Q3 96 TO Q4 96	Q4 96 TO Q1 97	Q1 97 TO Q2 97	Q2 97 TO Q3 97	Q3 97 TO Q4 97
	NUMBER OF FORECASTERS				
10 OR LESS	26	21	13	10	6
11 TO 20	4	6	11	8	12
21 TO 30	0	5	6	11	10
31 TO 40	2	0	2	2	3
41 TO 50	0	0	0	0	0
51 TO 60	0	0	0	0	0
61 TO 70	0	0	0	0	0
71 TO 80	0	0	0	1	1
81 TO 90	0	0	0	0	0
91 AND OVER	0	0	0	0	0
NOT REPORTING	5	5	5	5	5
MEDIAN PROBABILITY	5	10	15	15	20
MEAN PROBABILITY	8	11	16	21	23

NOTE: TOTAL NUMBER OF FORECASTERS REPORTING IS 32.

SOURCE: RESEARCH DEPARTMENT, FEDERAL RESERVE BANK OF PHILADELPHIA, SURVEY OF PROFESSIONAL FORECASTERS, FOURTH QUARTER 1996.

TABLE FOUR

MEAN PROBABILITY OF CHANGES IN GDP AND PRICES
1995-96 AND 1996-97

MEAN PROBABILITY ATTACHED TO POSSIBLE
PERCENT CHANGES IN REAL GDP:

	1995-96	1996-97
6.0 OR MORE	.00	.09
5.0 TO 5.9	.00	.19
4.0 TO 4.9	.00	1.28
3.0 TO 3.9	3.47	9.97
2.0 TO 2.9	90.55	52.56
1.0 TO 1.9	5.98	26.31
0.0 TO 0.9	.00	6.88
-1.0 TO -0.1	.00	2.25
-2.0 TO -1.1	.00	.31
LESS THAN -2.0	.00	.16

MEAN PROBABILITY ATTACHED TO POSSIBLE
PERCENT CHANGES IN GDP PRICE INDEX:

	1995-96	1996-97
8.0 OR MORE	.00	.00
7.0 TO 7.9	.00	.03
6.0 TO 6.9	.00	.06
5.0 TO 5.9	.00	.50
4.0 TO 4.9	.00	1.61
3.0 TO 3.9	3.53	18.09
2.0 TO 2.9	77.36	59.94
1.0 TO 1.9	19.08	17.78
0.0 TO 0.9	.03	1.77
WILL DECLINE	.00	.22

NOTE: TOTAL NUMBER OF FORECASTERS REPORTING IS 32.

SOURCE: RESEARCH DEPARTMENT, FEDERAL RESERVE BANK OF PHILADELPHIA, SURVEY OF PROFESSIONAL FORECASTERS, FOURTH QUARTER 1996.

TABLE FIVE

LONG-TERM (10 YEAR) FORECASTS

SERIES: CPI INFLATION RATE

STATISTIC	
MINIMUM	2.200
LOWER QUARTILE	2.625
MEDIAN	3.000
UPPER QUARTILE	3.237
MAXIMUM	4.000
MEAN	2.995
STD. DEV.	.420
N	32
MISSING	5

SOURCE: RESEARCH DEPARTMENT, FEDERAL RESERVE BANK OF PHILADELPHIA, SURVEY OF PROFESSIONAL FORECASTERS, FOURTH QUARTER 1996.