

ECONOMIC OUTLOOK SURVEY

This survey was formerly conducted by the National Bureau of Economic Research and the American Statistical Association. The survey began in 1968 and is taken quarterly. After consulting with the NBER, Dean Croushore and Leonard Mills took over the survey beginning in June 1990. Continuation of this survey would not have been possible without the support of Robert Allison of NBER and Victor Zarnowitz of the University of Chicago.

Historical data on past surveys are available from the National Bureau of Economic Research. For further information about the survey, please contact:

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THIRD QUARTER 1990

Dean Croushore and Leonard Mills
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According to the September survey of 13 professional forecasters, real GNP will increase 1.2 percent in 1990 and 1.7 percent in 1991. Inflation as measured by the consumer price index is expected to be 5.4 percent in 1990 and to fall to 4.5 percent in 1991. Both short- and long-term interest rates are predicted to be lower on average in 1991 than in 1990.

Slow Growth Is Expected Over the Next Four Quarters

Real GNP is expected to grow slowly through 1991:2, but to recover in the second half of 1991. The median forecasts for annual growth rates in real GNP are 1.2 percent in 1990:3, 0.6 percent for 1990:4, 0.7 percent for 1991:1, 0.9 percent for 1991:2, and 2.2 percent for 1991:3.

The estimated probability of a decline in real GNP peaks at 41 percent in 1990:4. Each of the quarterly estimates are at least 10 percentage points higher than the comparable figures from earlier surveys.

<i>Mean Probability of a Decline in Real GNP</i>	<i>March 1990 Survey</i>	<i>June 1990 Survey</i>	<i>September 1990 Survey</i>
1990:3	16	17	28
1990:4	16	30	41
1991:1	17	26	36
1991:2	n.a.	20	30
1991:3	n.a.	n.a.	22

Unemployment to Increase

The civilian unemployment rate is expected to rise to an average of 5.7 percent in 1991, compared to an average 5.4 percent in 1990. Unemployment begins rising in 1990:3 and peaks at 5.9 percent in 1991:3.

Consumer Price Inflation Higher in 1990

The median forecast is for 5 percent CPI inflation in the second half of 1990. This results in an expected 5.4 increase in consumer prices for 1990, but for 1991 CPI inflation is expected to fall to 4.5 percent.

Interest Rates Are Expected to Fall

The three-month Treasury bill rate is expected to fall steadily through 1991:3. The total decline is expected to be roughly 130 basis points, to 6.5 percent (discount basis). The decline in corporate bond yields is expected to be smaller, roughly 40 basis points over this period.

Consumption and Housing Weak, But Improving Modestly

Real personal consumption expenditures are projected to grow 1.0 percent in 1990 and a higher 1.3 percent in 1991. Housing starts are expected to be flat for the remainder of this year before improving modestly in 1991. Overall, the annual average number of housing starts is expected to decrease 9.4 percent in 1990, but to recover slightly in 1991, rising 4.0 percent. Residential investment is also expected to be weak, declining 3.6 percent in 1990 and 0.5 percent in 1991.

Business Investment Expected to Be Slow

Nonresidential fixed investment is expected to grow about 0.9 percent in both 1990 and 1991. Although inventory investment is expected to remain positive in 1990 and 1991, a smaller accumulation is expected: \$15.4 billion in 1990 and \$11.4 billion in 1991, compared to \$23.8 billion in 1989.

Industrial Production Improving Modestly, While Corporate Profits Decline

Industrial production is expected to increase 0.8 percent in 1990 and 1.7 percent in 1991. After-tax corporate profits are expected to fall modestly through mid-1991. The consensus sees corporate profits falling 2.4 percent in 1990 and 0.5 percent in 1991.

Net Exports Are a Source of Growth

Real net exports of goods and services are expected to average \$-39.4 billion in 1990 and \$-30.8 billion in 1991, an improvement over the \$-54.1 billion figure in 1989.

State and Local Government Purchases Offset Slow Growth in Federal Purchases

Federal purchases of goods and services are expected to increase 1.2 percent in 1990 before falling 1.9 percent in 1991 because of declining real defense outlays. State and local purchases are projected to increase 3.0 percent in 1990 and 1.7 percent in 1991.

Major Assumptions

Most forecasters see an increase in excise taxes in the range of \$10-20 billion. A few respondents also see some increase in personal taxes, coupled with a reduction in the capital gains tax rate. Also, most of the respondents see M2 growth of around 5 percent in 1991, as well as a decline in oil prices from around \$28 per barrel at the time of the survey to the low \$20s by mid-1991.

PROJECTIONS OF GNP AND OTHER ECONOMIC INDICATORS, 1990-91

	ANNUAL			PERCENT CHANGE	
	1989 ACTUAL	1990 FORECAST	1991 FORECAST	1989 TO 1990	1990 TO 1991
1. GROSS NATIONAL PRODUCT (\$ BILLIONS)	5200.8	5483.5	5779.5	5.4	5.4
2. GNP IMPLICIT PRICE DEFULATOR (1982=100)	126.3	131.6	137.1	4.2	4.2
3. GNP IN CONSTANT DOLLARS (BILLIONS OF 1982 DOLLARS)	4117.7	4166.9	4236.0	1.2	1.7
4. UNEMPLOYMENT RATE (PERCENT)	5.3	5.4	5.7	.1	.3 ¹
5. CORPORATE PROFITS AFTER TAXES (\$ BILLIONS)	172.6	168.5	167.7	-2.4	-.5
6. NONRESIDENTIAL FIXED INVESTMENT (BILLIONS OF 1982 DOLLARS)	506.1	510.0	514.5	.8	.9
7. NEW PRIVATE HOUSING UNITS STARTED (ANNUAL RATE, MILLIONS)	1.4	1.3	1.3	-9.2	4.0
8. CHANGE IN BUSINESS INVENTORIES (BILLIONS OF 1982 DOLLARS)	23.8	15.1	11.4	-8.7	-3.7 ²
9. TREASURY BILL RATE (3-MONTH, PERCENT)	8.1	7.6	6.7	-.6	-.9 ¹
10. CONSUMER PRICE INDEX (ANNUAL RATE)	4.8	5.4	4.5	.6	-.8 ¹

SOURCE: RESEARCH DEPARTMENT, FEDERAL RESERVE BANK OF PHILADELPHIA, ECONOMIC OUTLOOK SURVEY, SEPTEMBER 1990.
THE FIGURES ON EACH LINE ARE MEDIANS OF 13 INDIVIDUAL FORECASTS.

¹CHANGE IN RATE, IN PERCENTAGE POINTS.
²CHANGE IN BILLIONS OF DOLLARS.

PROJECTIONS OF GNP AND OTHER ECONOMIC INDICATORS, 1990-91

	QUARTERLY								PERCENT CHANGE Q2 90 TO Q3 91	
	1990		1990		1991		1991			
	Q2 ACTUAL	Q3	Q4	Q1	Q2	Q3	Q2 FORECAST			
1. GROSS NATIONAL PRODUCT (\$ BILLIONS)	5451.6	5521.5	5591.0	5672.0	5729.5	5818.0	5.1	5.4		
2. GNP IMPLICIT PRICE DEFULATOR (1982=100)	130.9	132.3	133.7	135.3	136.6	138.1	4.3	4.4		
3. GNP IN CONSTANT DOLLARS (BILLIONS OF 1982 DOLLARS)	4163.2	4175.5	4181.5	4188.6	4197.8	4221.0	.8	1.1		
4. UNEMPLOYMENT RATE (PERCENT)	5.3	5.5	5.6	5.8	5.8	5.9	.4	.4 ¹		
5. CORPORATE PROFITS AFTER TAXES (\$ BILLIONS)	166.7	169.0	166.6	163.3	162.1	174.5	-2.8	3.3		
6. NONRESIDENTIAL FIXED INVESTMENT (BILLIONS OF 1982 DOLLARS)	506.5	509.0	511.0	511.5	512.5	510.0	1.2	.2		
7. NEW PRIVATE HOUSING UNITS STARTED (ANNUAL RATE, MILLIONS)	1.2	1.2	1.2	1.2	1.3	1.3	6.8	10.8		
8. CHANGE IN BUSINESS INVENTORIES (BILLIONS OF 1982 DOLLARS)	26.2	23.0	14.5	11.0	11.3	14.0	-14.9	-9.0 ²		
9. TREASURY BILL RATE (3-MONTH, PERCENT)	7.8	7.5	7.3	7.0	6.7	6.5	-1.0	-1.0 ¹		
10. CONSUMER PRICE INDEX (ANNUAL RATE)	4.1	5.1	4.7	4.4	4.1	4.2	.0	-.9 ¹		

SOURCE: RESEARCH DEPARTMENT, FEDERAL RESERVE BANK OF PHILADELPHIA, ECONOMIC OUTLOOK SURVEY, SEPTEMBER 1990.
 THE FIGURES ON EACH LINE ARE MEDIANS OF 13 INDIVIDUAL FORECASTS.

¹CHANGE IN RATE, IN PERCENTAGE POINTS.

²CHANGE IN BILLIONS OF DOLLARS.

ECONOMIC OUTLOOK SURVEY
THIRD QUARTER 1990

TABLES

TABLE ONE

PROJECTIONS OF GNP AND OTHER ECONOMIC INDICATORS, 1990-91
MEDIAN OF FORECASTER PREDICTIONS

	NUMBER OF FORE- CASTERS	ACTUAL 1990 Q2	FORECASTS 1991				ACTUAL 1989	FORECAST 1990	FORECAST 1991
			Q3	Q4	Q1	Q2			
1. GROSS NATIONAL PRODUCT (\$ BILLIONS)	13	5451.6	5521.5	5591.0	5672.0	5729.5	5818.0	5200.8	5483.5
2. GNP IMPLICIT PRICE DEFULATOR (1982=100)	13	130.9	132.3	133.7	135.3	136.6	138.1	126.3	131.6
3. CORPORATE PROFITS AFTER TAXES (\$ BILLIONS)	13	166.7	169.0	166.6	163.3	162.1	174.5	172.6	168.5
4. UNEMPLOYMENT RATE (PERCENT)	13	5.3	5.5	5.6	5.8	5.8	5.9	5.3	5.4
5. INDUSTRIAL PRODUCTION (1987=100)	13	109.3	110.0	109.8	109.8	110.1	111.0	108.1	109.0
6. NEW PRIVATE HOUSING STARTS (ANNUAL RATE, MILLIONS)	13	1.20	1.18	1.19	1.23	1.28	1.31	1.38	1.25
7. CONSUMER PRICE INDEX (ANNUAL RATE)	13	4.1	5.1	4.7	4.4	4.1	4.2	4.8	5.4
8. TREASURY BILL RATE (3-MONTH)	13	7.77	7.51	7.28	7.00	6.73	6.50	8.12	7.57
9. NEW HIGH-GRADE CORPORATE BOND YIELD	12	9.89	9.90	9.79	9.67	9.45	9.47	9.55	9.81
10. GNP IN CONSTANT DOLLARS (BILLIONS OF 1982 DOLLARS)	13	4163.2	4175.5	4181.5	4188.6	4197.8	4221.0	4117.7	4166.9
								4236.0	

SOURCE: RESEARCH DEPARTMENT, FEDERAL RESERVE BANK OF PHILADELPHIA, ECONOMIC OUTLOOK SURVEY, SEPTEMBER 1990.

TABLE ONE CONTINUED

PROJECTIONS OF GNP AND OTHER ECONOMIC INDICATORS, 1990-91
MEDIAN OF FORECASTER PREDICTIONS

	NUMBER OF FORE- CASTERS	ACTUAL 1990 Q2	1990			FORECASTS 1991			ACTUAL 1989	FORECAST 1990	FORECAST 1991
			Q3	Q4	Q1	Q2	Q3				
11.	TOTAL CONSUMPTION EXPENDITURES (BILLIONS OF 1982 DOLLARS)	13	2675.2	2686.0	2690.6	2700.5	2711.0	2726.0	2656.8	2683.0	2718.5
12.	NONRESIDENTIAL FIXED INVESTMENT (BILLIONS OF 1982 DOLLARS)	13	506.5	509.0	511.0	511.5	512.5	510.0	506.1	510.0	514.5
13.	RESIDENTIAL FIXED INVESTMENT (BILLIONS OF 1982 DOLLARS)	13	181.6	176.9	174.9	174.9	178.8	179.0	187.0	180.3	179.4
14.	FEDERAL GOVERNMENT PURCHASES (BILLIONS OF 1982 DOLLARS)	13	345.0	340.4	338.0	334.0	334.0	331.0	334.9	339.0	332.5
15.	STATE AND LOCAL GOVERNMENT PURCHASES (BILLIONS OF 1982 DOLLARS)	13	475.2	477.8	479.9	482.0	484.6	487.0	463.2	477.0	485.0
16.	CHANGE IN BUSINESS INVENTORIES (BILLIONS OF 1982 DOLLARS)	13	26.2	23.0	14.5	11.0	11.3	14.0	23.8	15.1	11.4
17.	NET EXPORTS OF GOODS AND SERVICES (BILLIONS OF 1982 DOLLARS)	13	-46.5	-40.8	-37.0	-36.4	-31.0	-29.0	-54.1	-39.4	-30.8

SOURCE: RESEARCH DEPARTMENT, FEDERAL RESERVE BANK OF PHILADELPHIA, ECONOMIC OUTLOOK SURVEY, SEPTEMBER 1990.

TABLE TWO

	PROJECTED PERCENTAGE CHANGES IN GNP AND OTHER ECONOMIC INDICATORS, 1990-91						
	NUMBER OF FORE- CASTERS	Q2 1990 TO Q3 1990	Q3 1990 TO Q4 1990	Q4 1990 TO Q1 1991	Q1 1991 TO Q2 1991	Q2 1991 TO Q3 1991	1989 TO 1990
1. GROSS NATIONAL PRODUCT (\$ BILLIONS)	13	1.3	1.3	1.4	1.0	1.5	5.4
2. GNP IMPLICIT PRICE DEFULATOR (1982=100)	13	1.1	1.1	1.2	1.0	1.1	4.2
3. CORPORATE PROFITS AFTER TAXES (\$ BILLIONS)	13	1.4	-1.4	-2.0	-.7	7.6	-2.4
4. UNEMPLOYMENT RATE (PERCENT)	13	.2	.1	.2	.0	.2	.1
5. INDUSTRIAL PRODUCTION (1987=100)	13	.6	-.2	.0	.3	.8	1.7
6. NEW PRIVATE HOUSING STARTS (ANNUAL RATE, MILLIONS)	13	-1.4	.4	4.0	3.7	2.3	-9.2
7. CONSUMER PRICE INDEX (ANNUAL RATE)	13	1.0	-.4	-.3	-.3	.1	-.8
8. TREASURY BILL RATE (3-MONTH)	13	-.26	-.23	-.28	-.27	-.23	-.55
9. NEW HIGH-GRADE CORPORATE BOND YIELD	12	.01	-.11	-.12	-.22	.02	.26
10. GNP IN CONSTANT DOLLARS (BILLIONS OF 1982 DOLLARS)	13	.3	.1	.2	.2	.6	1.7

NOTE: FIGURES FOR UNEMPLOYMENT RATE, PERCENT CHANGE IN CONSUMER PRICE INDEX, TREASURY BILL RATE, AND CORPORATE BOND YIELD ARE CHANGES IN THESE RATES IN PERCENTAGE POINTS.

SOURCE: RESEARCH DEPARTMENT, FEDERAL RESERVE BANK OF PHILADELPHIA, ECONOMIC OUTLOOK SURVEY, SEPTEMBER 1990.

TABLE TWO CONTINUED

	PROJECTED PERCENTAGE CHANGES IN GNP AND OTHER ECONOMIC INDICATORS, 1990-91						
	NUMBER OF FORE- CASTERS	Q2 1990 TO Q3 1990	Q3 1990 TO Q4 1990	Q4 1990 TO Q1 1991	Q1 1991 TO Q2 1991	Q2 1991 TO Q3 1991	1989 TO 1990
11.	TOTAL CONSUMPTION EXPENDITURES (BILLIONS OF 1982 DOLLARS)	13	.4	.2	.4	.4	1.0
12.	NONRESIDENTIAL FIXED INVESTMENT (BILLIONS OF 1982 DOLLARS)	13	.5	.4	.1	.2	-.5
13.	RESIDENTIAL FIXED INVESTMENT (BILLIONS OF 1982 DOLLARS)	13	-2.6	-1.2	.1	2.2	.1
14.	FEDERAL GOVERNMENT PURCHASES (BILLIONS OF 1982 DOLLARS)	13	-1.3	-.7	-1.2	.0	-.9
15.	STATE AND LOCAL GOVERNMENT PURCHASES (BILLIONS OF 1982 DOLLARS)	13	.5	.4	.4	.5	.5
16.	CHANGE IN BUSINESS INVENTORIES (BILLIONS OF 1982 DOLLARS)	13	-3.2	-8.5	-3.5	.3	2.7
17.	NET EXPORTS OF GOODS AND SERVICES (BILLIONS OF 1982 DOLLARS)	13	5.7	3.8	.6	5.4	2.0
						14.7	8.7

NOTE: FIGURES FOR BUSINESS INVENTORIES AND NET EXPORTS ARE CHANGES IN BILLIONS OF DOLLARS.

SOURCE: RESEARCH DEPARTMENT, FEDERAL RESERVE BANK OF PHILADELPHIA, ECONOMIC OUTLOOK SURVEY, SEPTEMBER 1990.

TABLE THREE
ESTIMATED PROBABILITY OF DECLINE IN GNP IN CONSTANT DOLLARS

ESTIMATED PROBABILITY (CHANCES IN 100)	NUMBER OF FORECASTERS									
	Q2 TO Q3	90 TO 90	Q3 TO Q4	90 TO 90	Q4 TO Q1	90 TO 91	Q1 TO Q2	91 TO 91	Q2 TO Q3	91 TO 91
LESS THAN 1	3	1	1	1	1	1	1	1	1	1
1 TO 10	3	1	0	0	0	2	2	5		
11 TO 20	0	0	3	2	2	0				
21 TO 30	3	1	2	2	3	4				
31 TO 40	1	4	2	2	2	1				
41 TO 50	0	3	2	1	2	2				
51 TO 60	0	1	2	0	0	0				
61 TO 70	1	1	1	1	2	0				
71 TO 80	2	1	0	0	0	0				
81 AND OVER	0	0	0	0	0	0				
NOT REPORTING	0	0	0	0	0	0				
MEDIAN PROBABILITY	17	40	32	25	17					
MEAN PROBABILITY	28	41	36	30	22					

NOTE: TOTAL NUMBER OF FORECASTERS REPORTING IS 13.

SOURCE: RESEARCH DEPARTMENT, FEDERAL RESERVE BANK OF PHILADELPHIA,
ECONOMIC OUTLOOK SURVEY, SEPTEMBER 1950.

TABLE FOUR

MEAN PROBABILITY OF CHANGES IN GNP AND PRICES
1989-90 AND 1990-91

MEAN PROBABILITY ATTACHED TO POSSIBLE
PERCENT CHANGES IN GNP IN 1982 DOLLARS:

	<u>1989-90</u>	<u>1990-91</u>
6.0 or more	0.00	0.00
4.0 to 5.9	0.38	1.38
2.0 to 3.9	11.77	24.54
0.0 to 1.9	78.15	52.46
-2.0 to -0.1	8.92	19.46
Less than -2.0	0.77	2.15

MEAN PROBABILITY ATTACHED TO POSSIBLE
PERCENT CHANGES IN GNP IMPLICIT PRICE DEFLATOR:

	<u>1989-90</u>	<u>1990-91</u>
10.0 or more	0.00	0.19
8.0 to 9.9	1.92	3.27
6.0 to 7.9	11.00	12.92
4.0 to 5.9	74.69	61.54
2.0 to 3.9	12.38	20.54
Less than 2.0	0.00	1.54

NOTE: 13 FORECASTERS' REPORTS WERE USED TO COMPILE THIS TABLE.

SOURCE: RESEARCH DEPARTMENT, FEDERAL RESERVE BANK OF PHILADELPHIA, ECONOMIC OUTLOOK SURVEY, SEPTEMBER 1990.