

Survey of

# PROFESSIONAL

F O R E C A S T E R S

Federal Reserve Bank  
of Philadelphia

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## SECOND QUARTER 1999

### *Forecasters See Stronger Output Growth in 1999; Short-Term Inflation Outlook Holds Steady*

According to 37 forecasters surveyed by the Federal Reserve Bank of Philadelphia, real GDP is expected to increase at an annual rate of 3.2 percent in the current quarter, up from the previous survey's second-quarter estimate of 2.7 percent. The forecasters are also revising upward to 3.9 percent their estimate for growth in 1999. That estimate stood at 3.2 percent in the previous survey. For 2000, the forecasters are calling for growth of 2.3 percent, the same rate expected three months ago.

Despite a surprisingly strong April CPI report, the forecasters' inflation outlook remains roughly unchanged from that in the last survey. Measured on a fourth-quarter-over-fourth-quarter basis, CPI inflation is expected to average 2.1 percent in 1999 and 2.3 percent in 2000, representing about the same forecast of 2.0 percent and 2.3 percent, respectively, offered in the last survey. The forecasters expect current-quarter CPI inflation to average 2.7 percent, up markedly from last survey's estimate of 2.0 percent, but that runup likely reflects, in part, the effect of recent increases in energy prices. Indeed, over the following four quarters, the forecasters expect CPI inflation to hold steady at 2.2 percent. About one-half of the forecasts were received after last Thursday's PPI report; one-third were received after the following day's CPI report. A similar unchanged forecast characterizes the outlook for inflation as measured by the GDP price index. On a year-over-year basis, GDP inflation is expected to average 1.2 percent in 1999, unchanged from the previous survey, and 1.7 percent in 2000, up just 0.1 percentage points.

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

	<i>Real GDP (%)</i>		<i>CPI Inflation (%)</i>		<i>GDP Inflation (%)</i>	
	<i>Previous</i>	<i>New</i>	<i>Previous</i>	<i>New</i>	<i>Previous</i>	<i>New</i>
<i>Quarterly data:</i>						
1999: Q2	2.7	3.2	2.0	2.7	1.3	1.2
Q3	1.9	2.8	2.2	2.2	1.7	1.5
Q4	2.4	2.7	2.3	2.2	1.8	1.9
2000: Q1	2.4	1.8	2.3	2.2	1.3	1.8
Q2	N.A.	3.0	N.A.	2.2	N.A.	1.7
<i>Annual average data:</i>						
1999	3.2	3.9	2.0	2.1	1.2	1.2
2000	2.3	2.3	2.3	2.3	1.6	1.7

### ***Interest Rates Are Seen Holding Steady, But at Levels Higher Than Those Predicted Three Months Ago***

While the forecasters do not expect a major swing in interest rates over the next two years, they do see rates hovering at levels higher than those predicted in last quarter's survey. At the short end, interest rates, as measured by the rate on three-month Treasury bills, are expected to hold steady at 4.5 percent over the next three quarters, up from a steady 4.4 percent over the same period in last quarter's survey. The rate is expected to average 4.5 percent in 1999 and 4.6 percent in 2000, up from 4.4 percent in both years in the previous survey. On the long end, the yield on 10-year Treasury bonds is expected to average 5.3 percent in 1999, up from 4.9 percent previously, and 5.4 percent in 2000, up from 5.2 percent.

### ***Long-Term Inflation Expectations Bounce Back***

Taking back the gains registered in last quarter's survey, the forecasters now expect long-term inflation, as measured by the 10-year average rate of growth in the CPI, to average 2.5 percent, up from 2.3 percent three months ago. In last quarter's survey, the forecasters cut their estimate of long-term inflation to 2.3 percent from the level of 2.5 percent registered in each of the preceding three surveys.

### ***Forecasters Are Cutting Risk of a Negative Quarter in 1999***

On the heels of surprisingly strong first-quarter growth and a projection for continued healthy growth throughout the remainder of the year, the forecasters are cutting the risk assigned to a negative quarter over the remainder of 1999. In the current quarter, that risk stands at 3 percent, down from 8 percent previously. The risks rise very slightly over the next two quarters, to 9 percent in the fourth quarter, but they remain below those assigned previously. As noted in last survey's writeup, the risk of a negative quarter jumps in the first quarter of 2000—to 26 percent. In the current survey, that jump is associated with a projected slowdown in real GDP growth, from 2.7 percent in the fourth quarter to 1.8 percent in the first quarter, as shown in the previous table. The following table compares the risks in the current survey with those of three months ago.

#### ***Risk of a Negative Quarter (%)***

	<i>Previous Survey</i>	<i>New Survey</i>
<i>Quarterly data:</i>		
1999: Q2	8	3
Q3	12	6
Q4	15	9
2000: Q1	27	26
Q2	N.A.	20

### ***Additional Evidence on Benign Year-2000 Effects***

In a follow-up to our fourth-quarter survey's focus on how the Year-2000 conversion problem is affecting macroeconomic forecasts, we asked the current survey's participants to elaborate on such effects. We began by asking the forecasters to reassess their previously stated views on how much Y2K will affect real GDP growth in 1999 and 2000. On the basis of 36 responses to this question, the forecasters estimate that, on average, real GDP growth will be 0.3 percentage points higher in 1999 and 0.3 percentage points lower in 2000 as a result of the conversion, estimates that are roughly unchanged from 0.1 and -0.3 in the fourth-quarter survey.

To gauge the importance of various explanations that have been advanced in the press in favor of a Y2K effect, we asked the forecasters to assign a number from 1 (not important) to 5 (very important) to each of the following explanations to indicate the degree to which each contributes to their assessment of an effect. The results, summarized in the following table, indicate that, on average, variability in capital purchases (including personal computers) and inventory accumulation contribute the most to the forecasters' expectation of a Y2K effect. A disruption to U.S. production due to the failure of foreign computer systems registers second in order of importance, while disruptions due to the failure of domestic systems and "other" (which a few forecasters characterized as preemptive consumer purchases) did not figure prominently in the forecasters' thinking.

<i>Explanation for a Y2K Effect</i>	<i>Average Response</i>
Increased/Reduced Capital Purchases	3.3
Inventory Buildup/Draw Down	3.3
U.S. Computer Failures	1.4
Foreign Computer Failures	2.4
Other	1.3

To assess the degree of risk associated with the point forecasts of a Y2K effect, we asked the forecasters to assign a probability to various possible ranges of the effect on real GDP growth in 1999 and 2000. The probabilities, averaged over forecasters and shown below, indicate that the forecasters place little weight on the possibility of large macroeconomic effects from Y2K.

<i>Range of Effect in Percentage Points</i>	<i>Average Probability</i>	
	1999	2000
More Than 2.0	1	0
1.6 to 2.0	1	0
1.1 to 1.5	6	1
0.6 to 1.0	19	2
0.1 to 0.5	57	12
-0.4 to 0.0	13	47
-0.9 to -0.5	2	24
-1.4 to -1.0	0	10
-1.9 to -1.5	0	2
Less Than -1.9	0	0

#### ***Forecasters See Budget Surpluses at Levels Lower Than Those Projected by CBO***

In answer to a special question about the outlook for the federal government's budget surplus (including on-budget and off-budget items), the forecasters indicate that their projections match those of the CBO (as published in the March 3 "Analysis of the President's Budgetary Proposals") over fiscal years 1999 and 2000. However, for fiscal years beyond 2000, the forecasters expect much smaller surpluses, as the following table shows.

#### ***Federal Government Budget Surplus Projections Fiscal Years, Billions of Dollars***

	1999	2000	2001	2002	2003	2004
CBO	111	133	156	212	213	239
Survey of Professional Forecasters	112	123	112	117	118	133

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 email: dean.croushore@phil.frb.org

To subscribe to the survey, contact the Research Department's Publications Desk at (215) 574-6428. This 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>.

SURVEY OF PROFESSIONAL FORECASTERS  
MAJOR MACROECONOMIC INDICATORS, 1999-2000

	1999	2000			ANNUAL	
	Q2	Q3	Q4	Q1	1999	2000
	FORECAST					
PERCENT GROWTH AT ANNUAL RATES						
1. REAL GDP (BILLIONS, CHAIN WEIGHTED)	3.2	2.8	2.7	1.8	3.0	2.3
2. GDP PRICE INDEX (1992=100)	1.2	1.5	1.9	1.8	1.7	1.7
3. GROSS DOMESTIC PRODUCT (GDP) (\$ BILLIONS)	4.6	4.2	4.6	4.0	4.3	4.3
4. CONSUMER PRICE INDEX (CPI-U) (ANNUAL RATE)	2.7	2.2	2.2	2.2	2.2	2.3
VARIABLES IN LEVELS						
5. UNEMPLOYMENT RATE (PERCENT)	4.3	4.3	4.3	4.4	4.5	4.5
6. 3-MONTH TREASURY BILL RATE (PERCENT)	4.5	4.5	4.5	4.6	4.6	4.6
7. 10-YEAR TREASURY BOND YIELD (PERCENT)	5.3	5.3	5.3	5.4	5.4	5.4

SOURCE: RESEARCH DEPARTMENT, FEDERAL RESERVE BANK OF PHILADELPHIA, SURVEY OF PROFESSIONAL FORECASTERS, SECOND QUARTER 1999.

NOTES: THE FIGURES ON EACH LINE ARE MEDIANS OF 37 INDIVIDUAL FORECASTS. NA = NOT APPLICABLE.

**SURVEY OF PROFESSIONAL FORECASTERS**

**Second Quarter 1999**

**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 May 3; the tables do not reflect subsequent revisions to the data. All forecasts were received on or before May 15.

TABLE ONE

MAJOR MACROECONOMIC INDICATORS, 1999-2000  
MEDIANS OF FORECASTER PREDICTIONS

NUMBER OF FORE- CASTERS	ACTUAL 1999 Q1	FORECASTS				ACTUAL 1998	FORECAST 1999	FORECAST 2000	
		1999 Q2	1999 Q3	1999 Q4	2000 Q1				
35	8807.9	8908.0	9000.7	9103.2	9192.9	9289.9	8511.0	8954.0	9342.8
37	113.48	113.82	114.25	114.80	115.30	115.80	112.71	114.06	116.02
28	N.A.	488.4	487.3	487.0	485.4	490.6	477.7	486.0	490.1
37	4.3	4.3	4.3	4.3	4.4	4.5	4.5	4.3	4.5
33	132.5	133.4	134.3	135.3	135.7	136.7	131.4	134.1	137.4
35	1.79	1.70	1.67	1.62	1.58	1.57	1.62	1.69	1.54
35	1.5	2.7	2.2	2.2	2.2	2.2	1.5	2.1	2.3
36	4.41	4.47	4.50	4.50	4.55	4.57	4.78	4.50	4.60
33	6.42	6.70	6.71	6.65	6.68	6.65	6.53	6.65	6.67
35	4.98	5.35	5.33	5.35	5.37	5.40	5.26	5.28	5.40

SOURCE: RESEARCH DEPARTMENT, FEDERAL RESERVE BANK OF PHILADELPHIA, SURVEY OF PROFESSIONAL FORECASTERS, SECOND QUARTER 1999.

TABLE ONE CONTINUED

MAJOR MACROECONOMIC INDICATORS, 1999-2000  
MEDIAN OF FORECASTER PREDICTIONS

	NUMBER OF FORE- CASTERS	ACTUAL 1999		FORECASTS				ACTUAL 1998	FORECAST 1999	FORECAST 2000
		Q1	Q2	1999		2000				
				Q3	Q4	Q1	Q2			
11. REAL GDP (BILLIONS, CHAIN WEIGHTED)	37	7762.5	7823.9	7877.8	7930.0	7966.1	8025.2	7551.9	7848.3	8027.4
12. TOTAL CONSUMPTION EXPENDITURES (BILLIONS, CHAIN WEIGHTED)	37	5331.9	5378.0	5415.0	5445.0	5476.0	5510.0	5153.3	5393.0	5523.1
13. NONRESIDENTIAL FIXED INVESTMENT (BILLIONS, CHAIN WEIGHTED)	36	1010.3	1028.8	1045.7	1059.7	1073.9	1089.1	960.7	1038.2	1093.9
14. RESIDENTIAL FIXED INVESTMENT (BILLIONS, CHAIN WEIGHTED)	36	336.1	340.7	341.8	339.0	337.0	337.5	312.0	339.0	337.6
15. FEDERAL GOVERNMENT C & I (BILLIONS, CHAIN WEIGHTED)	35	459.8	461.3	463.1	464.4	465.0	466.0	453.3	462.3	466.2
16. STATE AND LOCAL GOVT C & I (BILLIONS, CHAIN WEIGHTED)	35	865.0	869.0	873.6	877.9	882.8	886.8	843.8	871.1	889.9
17. CHANGE IN BUSINESS INVENTORIES (BILLIONS, CHAIN WEIGHTED)	36	45.2	44.0	50.0	54.8	45.1	44.7	57.4	49.2	40.6
18. NET EXPORTS (BILLIONS, CHAIN WEIGHTED)	37	-305.6	-313.8	-323.4	-322.8	-321.9	-325.6	-238.2	-318.0	-320.3

SOURCE: RESEARCH DEPARTMENT, FEDERAL RESERVE BANK OF PHILADELPHIA, SURVEY OF PROFESSIONAL FORECASTERS, SECOND QUARTER 1999.

TABLE TWO

MAJOR MACROECONOMIC INDICATORS, 1999-2000  
PERCENTAGE CHANGES AT ANNUAL RATES

	NUMBER OF FORE- CASTERS	Q1 1999		Q2 1999		Q3 1999		Q4 1999		Q1 2000		Q2 2000		1998 TO 1999		1999 TO 2000	
		TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO
1. GROSS DOMESTIC PRODUCT (GDP) (\$ BILLIONS)	35	4.6	4.2	4.2	4.6	4.0	4.3	4.0	4.0	4.3	4.3	5.2	4.3	5.2	4.3	4.3	4.3
2. GDP PRICE INDEX (1992=100)	37	1.2	1.5	1.9	1.9	1.8	1.7	1.8	1.8	1.7	1.7	1.2	1.7	1.2	1.2	1.7	1.7
3. CORPORATE PROFITS AFTER TAXES (\$ BILLIONS)	28	5.8	-0.9	-0.2	-0.2	-1.3	4.4	-1.3	-1.3	4.4	4.4	1.7	0.9	1.7	1.7	0.9	0.9
4. UNEMPLOYMENT RATE (PERCENT)	37	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	-0.2	0.2	-0.2	-0.2	0.2	0.2
5. INDUSTRIAL PRODUCTION (1992=100)	33	2.7	2.7	2.7	3.0	1.1	3.0	1.1	1.1	3.0	3.0	2.1	2.5	2.1	2.1	2.5	2.5
6. NEW PRIVATE HOUSING STARTS (ANNUAL RATE, MILLIONS)	35	-19.0	-6.2	-6.2	-12.7	-8.4	-3.0	-8.4	-8.4	-3.0	-3.0	4.5	-8.6	4.5	4.5	-8.6	-8.6
7. CONSUMER PRICE INDEX (CPI-U) (ANNUAL RATE)	35	1.2	-0.5	-0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.2	0.6	0.6	0.2	0.2
8. 3-MONTH TREASURY BILL RATE (PERCENT)	36	0.07	0.03	0.03	0.00	0.05	0.02	0.05	0.05	0.02	0.02	-0.28	0.10	-0.28	-0.28	0.10	0.10
9. AAA CORPORATE BOND YIELD (PERCENT)	33	0.28	0.01	0.01	-0.06	0.03	-0.03	0.03	0.03	-0.03	-0.03	0.12	0.02	0.12	0.12	0.02	0.02
10. 10-YEAR TREASURY BOND YIELD (PERCENT)	35	0.37	-0.02	-0.02	0.02	0.02	0.03	0.02	0.02	0.03	0.03	0.02	0.12	0.02	0.02	0.12	0.12

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, SECOND QUARTER 1999.

TABLE TWO CONTINUED

MAJOR MACROECONOMIC INDICATORS, 1999-2000  
PERCENTAGE CHANGES AT ANNUAL RATES

	NUMBER OF FORE- CASTERS	Q1 1999		Q2 1999		Q3 1999		Q4 1999		Q1 2000		Q2 2000		1998 TO 1999		1999 TO 2000	
		TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO
11. REAL GDP (BILLIONS, CHAIN WEIGHTED)	37	3.2	2.8	2.7	1.8	3.0	3.9	2.3									
12. TOTAL CONSUMPTION EXPENDITURES (BILLIONS, CHAIN WEIGHTED)	37	3.5	2.8	2.2	2.3	2.5	4.7	2.4									
13. NONRESIDENTIAL FIXED INVESTMENT (BILLIONS, CHAIN WEIGHTED)	36	7.5	6.7	5.5	5.5	5.8	8.1	5.4									
14. RESIDENTIAL FIXED INVESTMENT (BILLIONS, CHAIN WEIGHTED)	36	5.6	1.3	-3.2	-2.3	0.6	8.7	-0.4									
15. FEDERAL GOVERNMENT C & I (BILLIONS, CHAIN WEIGHTED)	35	1.3	1.6	1.1	0.5	0.9	2.0	0.8									
16. STATE AND LOCAL GOVT C & I (BILLIONS, CHAIN WEIGHTED)	35	1.9	2.1	2.0	2.2	1.8	3.2	2.2									
17. CHANGE IN BUSINESS INVENTORIES (BILLIONS, CHAIN WEIGHTED)	36	-1.2	6.0	4.8	-9.7	-0.4	-8.3	-8.6									
18. NET EXPORTS (BILLIONS, CHAIN WEIGHTED)	37	-8.2	-9.6	0.6	0.9	-3.7	-79.8	-2.3									

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, SECOND QUARTER 1999.

TABLE THREE

ESTIMATED PROBABILITY OF DECLINE IN REAL GDP

ESTIMATED PROBABILITY (CHANCES IN 100)	Q1 1999 TO		Q2 1999 TO		Q3 1999 TO		Q4 1999 TO		Q1 2000 TO		Q2 2000 TO	
	Q2 1999	Q3 1999	Q3 1999	Q4 1999	Q4 1999	Q1 2000	Q1 2000	Q1 2000	Q2 2000	Q2 2000	Q2 2000	Q2 2000
10 OR LESS	31	29	25	11								9
11 TO 20	2	4	6	5								12
21 TO 30	0	0	2	6								6
31 TO 40	0	0	0	4								4
41 TO 50	0	0	0	4								2
51 TO 60	0	0	0	2								0
61 TO 70	0	0	0	0								0
71 TO 80	0	0	0	1								0
81 TO 90	0	0	0	0								0
91 AND OVER	0	0	0	0								0
NOT REPORTING	4	4	4	4								4
MEDIAN PROBABILITY	0	5	6	25								20
MEAN PROBABILITY	3	6	9	26								20

NOTE: TOTAL NUMBER OF FORECASTERS REPORTING IS 33.

SOURCE: RESEARCH DEPARTMENT, FEDERAL RESERVE BANK OF PHILADELPHIA, SURVEY OF PROFESSIONAL FORECASTERS, SECOND QUARTER 1999.

TABLE FOUR

MEAN PROBABILITY OF CHANGES IN GDP AND PRICES  
1998-1999 AND 1999-2000

	1998-1999	1999-2000
	-----	-----
MEAN PROBABILITY ATTACHED TO POSSIBLE PERCENT CHANGES IN REAL GDP:		
6.0 OR MORE	0.26	0.09
5.0 TO 5.9	4.21	0.74
4.0 TO 4.9	30.24	7.26
3.0 TO 3.9	49.47	25.62
2.0 TO 2.9	11.12	36.53
1.0 TO 1.9	3.47	19.41
0.0 TO 0.9	0.94	6.91
-1.0 TO -0.1	0.21	2.50
-2.0 TO -1.1	0.06	0.82
LESS THAN -2.0	0.03	0.12

	1998-1999	1999-2000
	-----	-----
MEAN PROBABILITY ATTACHED TO POSSIBLE PERCENT CHANGES IN GDP PRICE INDEX:		
8.0 OR MORE	0.06	0.06
7.0 TO 7.9	0.06	0.06
6.0 TO 6.9	0.06	0.06
5.0 TO 5.9	0.09	0.06
4.0 TO 4.9	0.12	1.18
3.0 TO 3.9	1.24	7.56
2.0 TO 2.9	17.03	28.24
1.0 TO 1.9	64.44	50.32
0.0 TO 0.9	15.94	11.03
WILL DECLINE	0.97	1.44

NOTE: TOTAL NUMBER OF FORECASTERS REPORTING IS 34.

SOURCE: RESEARCH DEPARTMENT, FEDERAL RESERVE BANK OF PHILADELPHIA, SURVEY OF PROFESSIONAL FORECASTERS, SECOND QUARTER 1999.

TABLE FIVE  
LONG-TERM (10 YEAR) FORECASTS

SERIES: CPI INFLATION RATE	
STATISTIC	
MINIMUM	1.200
LOWER QUARTILE	2.175
MEDIAN	2.500
UPPER QUARTILE	2.625
MAXIMUM	3.500
MEAN	2.434
STD. DEV.	0.472
N	34
MISSING	3

SOURCE: RESEARCH DEPARTMENT, FEDERAL RESERVE BANK OF PHILADELPHIA, SURVEY OF PROFESSIONAL FORECASTERS, SECOND QUARTER 1999.