

Survey of

PROFESSIONAL FORECASTERS

Federal Reserve Bank
of Philadelphia

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THIRD QUARTER 1998

Forecasters Expect Continued Growth Despite a Worsening Trade Picture

Despite new evidence indicating a worsening trade deficit, real GDP will continue to grow over each of the next five quarters, according to 32 forecasters surveyed by the Federal Reserve Bank of Philadelphia. The forecasters expect real GDP to grow at an annual rate of 2.1 percent in the third quarter, the same rate they expected in last quarter's survey. After accelerating to an annual rate of 3.1 percent in the fourth quarter, the forecasters expect growth to average 2.3 percent over the first three quarters of 1999. Real GDP growth will average 3.4 percent in 1998, up from 3.2 percent in the previous survey, and 2.3 percent in 1999, down from 2.4 percent previously.

A major source of weakness in the current survey is the trade deficit, measured by real net exports in billions of chain-weighted dollars. Currently, the forecasters expect the deficit to average \$250.3 billion in 1998, up from their estimate of \$214.4 billion in the last survey. The deficit is expected to increase to \$288.4 billion in 1999, up from \$233.1 billion previously.

A slightly lower path of unemployment rates over the next five quarters accompanies the outlook for continued expansion. The forecasters expect the rate of unemployment to average 4.5 percent in the third quarter, down 0.1 percentage points from the previous estimate of 4.6 percent. For the year, the unemployment rate will average 4.5 percent, also down 0.1 percentage points from the previous estimate. The forecasters project a rise to 4.7 percent in 1999, but this estimate is also down 0.1 percentage points from last quarter's estimate.

The forecasters are assigning a slightly higher chance to the possibility of a third-quarter downturn. Currently, that chance stands at 13 percent, up 5 percentage points from the previous estimate of 8 percent. Although the chances of a negative quarter rise to 19 percent over the following three quarters, these forecasts represent increases of only 1 to 2 percentage points over the previous survey's estimates.

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

	Real GDP (%)		Real Net Exports (\$, Bil)		Chance of Negative Quarter (%)	
	Previous	New	Previous	New	Previous	New
<i>Quarterly data:</i>						
1998: Q3	2.1	2.1	-219.7	-271.8	8.0	13.0
Q4	2.3	3.1	-225.3	-280.0	12.0	13.0
1999: Q1	2.3	2.3	-230.1	-287.6	16.0	18.0
Q2	2.3	2.1	-236.2	-289.7	18.0	19.0
Q3	N.A.	2.5	N.A.	-287.3	N.A.	19.0
<i>Annual average data:</i>						
1998	3.2	3.4	-214.4	-250.3	N.A.	N.A.
1999	2.4	2.3	-233.1	-288.4	N.A.	N.A.

Forecasters Cut Their Estimates for Inflation Over the Remainder of 1998

The forecasters have reduced their projections for inflation over the next two quarters. Measured by the rate of change in the Consumer Price Index, inflation, forecasters expect, will average 2.0 percent in the third quarter, down from 2.3 percent in the previous survey, and 2.4 percent in the fourth quarter, unchanged from the previous estimate. An additional measure of inflation, based on the rate of change in the chain-weighted GDP price index, is expected to average 1.2 percent in the third quarter and 1.7 percent in the fourth quarter, both down sharply from 1.9 percent and 2.1 percent previously. The GDP measure is expected to average 1.1 percent in 1998 and 1.9 percent in 1999. These represent reductions of 0.4 percentage points and 0.2 percentage points, respectively, from the previous survey's estimates.

The following table compares this survey's inflation forecasts with those from the previous survey.

	CPI (%)		GDP Price Index (%)	
	Previous	New	Previous	New
<i>Quarterly data:</i>				
1998: Q3	2.3	2.0	1.9	1.2
Q4	2.4	2.4	2.1	1.7
1999: Q1	2.5	2.5	2.1	1.9
Q2	2.6	2.5	2.1	2.2
Q3	N.A.	2.5	N.A.	2.3
<i>Annual average data:</i>				
1998	1.7	1.7	1.5	1.1
1999	2.5	2.5	2.1	1.9

Long-Term Expectations for Inflation Hold Steady

Expectations for inflation, as measured by the CPI, over the next 10 years are 2.50 percent, the same rate expected in last quarter's survey. This survey marks the first since that of the fourth quarter of 1997 in which long-term expectations for inflation have not fallen.

Forecasters Peg the Natural Rate at 5.30 Percent

In third-quarter surveys, the participants are asked about their use of the natural rate of unemployment—the rate of unemployment that occurs when the economy reaches equilibrium—in generating their forecasts. Fourteen of the 30 participants, or 47 percent, who answered this question indicated that they use the natural-rate concept in generating their forecasts. The median estimate of the natural rate is 5.30 percent. In last year's third-quarter survey, 59 percent of the participants who responded to this question indicated that they use the natural-rate concept, and the median estimate was 5.25 percent.

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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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>.

**SURVEY OF PROFESSIONAL FORECASTERS
MAJOR MACROECONOMIC INDICATORS, 1998-99**

	1998				1999				ANNUAL	
	Q3	Q4	Q1	Q2	Q3	FORECAST	1998	1999	AVERAGE	
PERCENT GROWTH AT ANNUAL RATES										
1. REAL GDP (BILLIONS, CHAIN WEIGHTED)	2.1	3.1	2.3	2.1	2.5	3.4	2.3	2.3	3.4	2.3
2. GDP PRICE INDEX (1992=100)	1.2	1.7	1.9	2.2	2.3	1.1	1.1	1.9	1.1	1.9
3. GROSS DOMESTIC PRODUCT (GDP) (\$ BILLIONS)	3.5	4.7	4.2	4.4	4.3	4.6	4.2	4.6	4.6	4.2
4. CONSUMER PRICE INDEX (CPI-U) (ANNUAL RATE)	2.0	2.4	2.5	2.5	2.5	1.7	2.5	2.5	2.5	2.5
VARIABLES IN LEVELS										
5. UNEMPLOYMENT RATE (PERCENT)	4.5	4.5	4.6	4.7	4.7	4.5	4.5	4.7	4.5	4.7
6. 3-MONTH TREASURY BILL RATE (PERCENT)	5.0	5.0	5.1	5.1	5.2	5.0	5.0	5.1	5.0	5.1
7. 10-YEAR TREASURY BOND YIELD (PERCENT)	5.5	5.6	5.7	5.7	5.8	5.6	5.6	5.8	5.8	5.8

SOURCE: RESEARCH DEPARTMENT, FEDERAL RESERVE BANK OF PHILADELPHIA, SURVEY OF PROFESSIONAL FORECASTERS, THIRD QUARTER 1998.

NOTES: THE FIGURES ON EACH LINE ARE MEDIANs OF 32 INDIVIDUAL FORECASTS. NA = NOT APPLICABLE.

SURVEY OF PROFESSIONAL FORECASTERS

Third Quarter 1998

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

TABLE ONE

			FORECASTS				ACTUAL	FORECAST	FORECAST
			1998	Q3	Q4	1999	1997	1998	1999
NUMBER OF FORECASTERS	ACTUAL 1998 Q2	FORECASTS 1999							
1. GROSS DOMESTIC PRODUCT (GDP) (\$ BILLIONS)	28	8431.7	8504.3	8601.8	8690.2	8784.9	8877.5	8110.9	8483.5
2. GDP PRICE INDEX (1992=100)	30	112.57	112.90	113.39	113.92	114.56	115.20	111.57	112.80
3. CORPORATE PROFITS AFTER TAXES (\$ BILLIONS)	21	N.A.	480.0	480.4	490.0	495.7	499.2	488.3	482.4
4. UNEMPLOYMENT RATE (PERCENT)	32	4.4	4.5	4.5	4.6	4.7	4.7	5.0	4.5
5. INDUSTRIAL PRODUCTION (1987=100)	31	128.5	129.0	129.7	130.5	131.4	132.3	124.4	128.7
6. NEW PRIVATE HOUSING STARTS (ANNUAL RATE, MILLIONS)	32	1.56	1.55	1.52	1.48	1.47	1.46	1.47	1.55
7. CONSUMER PRICE INDEX (CPI-U) (ANNUAL RATE)	30	2.0	2.0	2.4	2.5	2.5	2.5	1.9	1.7
8. 3-MONTH TREASURY BILL RATE (PERCENT)	30	4.98	5.00	5.01	5.05	5.10	5.16	5.06	5.00
9. AAA CORPORATE BOND YIELD (PERCENT)	28	6.64	6.60	6.61	6.70	6.76	6.80	7.26	6.62
10. 10-YEAR TREASURY BOND YIELD (PERCENT)	30	5.60	5.50	5.60	5.68	5.72	5.76	6.35	5.59

SOURCE: RESEARCH DEPARTMENT, FEDERAL RESERVE BANK OF PHILADELPHIA, SURVEY OF PROFESSIONAL FORECASTERS, THIRD QUARTER 1998.

TABLE ONE CONTINUED

**MAJOR MACROECONOMIC INDICATORS, 1998-99
MEDIAN OF FORECASTER PREDICTIONS**

	NUMBER OF FORE- CASTERS	ACTUAL 1998 Q2	1998				FORECASTS 1999			ACTUAL 1997	FORECAST 1998	FORECAST 1999
			Q3	Q4	Q1	Q2	Q3					
11. REAL GDP (BILLIONS, CHAIN WEIGHTED)	31	7491.0	7530.0	7587.0	7629.9	7668.8	7716.3	7269.8	7517.0	7687.4	—	—
12. TOTAL CONSUMPTION EXPENDITURES (BILLIONS, CHAIN WEIGHTED)	31	5126.5	5164.5	5206.0	5242.9	5275.3	5315.0	4913.5	5138.8	5281.1	—	—
13. NONRESIDENTIAL FIXED INVESTMENT (BILLIONS, CHAIN WEIGHTED)	31	957.5	976.6	992.4	1005.6	1017.2	1027.5	859.4	964.0	1021.9	—	—
14. RESIDENTIAL FIXED INVESTMENT (BILLIONS, CHAIN WEIGHTED)	30	307.9	310.2	312.1	310.1	307.8	307.1	282.8	308.0	309.7	—	—
15. FEDERAL GOVERNMENT C & I (BILLIONS, CHAIN WEIGHTED)	28	453.8	453.7	453.8	453.5	453.8	453.8	458.0	451.9	454.8	—	—
16. STATE AND LOCAL GOVT C & I (BILLIONS, CHAIN WEIGHTED)	28	841.2	845.4	849.6	853.8	858.0	862.3	827.1	843.3	860.1	—	—
17. CHANGE IN BUSINESS INVENTORIES (BILLIONS, CHAIN WEIGHTED)	29	44.7	46.2	50.7	44.5	44.8	44.5	63.2	58.1	41.9	—	—
18. NET EXPORTS (BILLIONS, CHAIN WEIGHTED)	30	-252.9	-271.8	-280.0	-287.6	-289.7	-287.3	-136.1	-250.3	-288.4	—	—

SOURCE: RESEARCH DEPARTMENT, FEDERAL RESERVE BANK OF PHILADELPHIA, SURVEY OF PROFESSIONAL FORECASTERS, THIRD QUARTER 1998.

TABLE TWO

**MAJOR MACROECONOMIC INDICATORS, 1998-99
PERCENTAGE CHANGES AT ANNUAL RATES**

	NUMBER OF FORE- CASTERS	Q2 '98 Q3 '98 Q4 '98	Q3 '98 TO Q1 '99	Q4 '98 TO Q2 '99	Q1 '99 TO Q3 '99	Q2 '99 TO Q3 '99	1997 TO 1998	1998 TO 1999
1. GROSS DOMESTIC PRODUCT (GDP) (\$ BILLIONS)	28	3.5	4.7	4.2	4.4	4.3	4.6	4.2
2. GDP PRICE INDEX (1992=100)	30	1.2	1.7	1.9	2.2	2.3	1.1	1.9
3. CORPORATE PROFITS AFTER TAXES (\$ BILLIONS)	21	.0	.3	8.3	4.7	2.9	-1.2	4.8
4. UNEMPLOYMENT RATE (PERCENT)	32	.1	.0	.1	.1	.0	-.5	.2
5. INDUSTRIAL PRODUCTION (1987=100)	31	1.6	2.2	2.5	2.8	2.8	3.4	2.4
6. NEW PRIVATE HOUSING STARTS (ANNUAL RATE, MILLIONS)	32	-4.5	-7.2	-9.3	-4.0	-2.6	5.2	-5.1
7. CONSUMER PRICE INDEX (CPI-U) (ANNUAL RATE)	30	.0	.4	.1	.0	.0	-.2	.8
8. 3-MONTH TREASURY BILL RATE (PERCENT)	30	.02	.01	.05	.05	.06	-.06	.10
9. AAA CORPORATE BOND YIELD (PERCENT)	28	-.04	.01	.09	.06	.04	-.64	.16
10. 10-YEAR TREASURY BOND YIELD (PERCENT)	30	-.10	.10	.08	.04	.04	-.76	.16

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, THIRD QUARTER 1998.

TABLE TWO CONTINUED

**MAJOR MACROECONOMIC INDICATORS, 1998-99
PERCENTAGE CHANGES AT ANNUAL RATES**

	NUMBER OF FORE- CASTERS	Q2 98 TO Q3 98	Q3 98 TO Q4 98	Q4 98 TO Q1 99	Q1 99 TO Q2 99	Q2 99 TO Q3 99	Q3 99 TO Q4 99	Q4 99 TO Q1 99	Q1 99 TO Q2 99	Q2 99 TO Q3 99	Q3 99 TO Q4 99	Q4 99 TO Q1 99	Q1 99 TO Q2 99	Q2 99 TO Q3 99	Q3 99 TO Q4 99	Q4 99 TO Q1 99	Q1 99 TO Q2 99	Q2 99 TO Q3 99	Q3 99 TO Q4 99	Q4 99 TO Q1 99		
11. REAL GDP (BILLIONS, CHAIN WEIGHTED)	31	2.1	3.1	2.3	2.1	2.5	3.4	2.3														
12. TOTAL CONSUMPTION EXPENDITURES (BILLIONS, CHAIN WEIGHTED)	31	3.0	3.3	2.9	2.5	3.0	4.6	2.8														
13. NONRESIDENTIAL FIXED INVESTMENT (BILLIONS, CHAIN WEIGHTED)	31	8.2	6.6	5.4	4.7	4.1	12.2	6.0														
14. RESIDENTIAL FIXED INVESTMENT (BILLIONS, CHAIN WEIGHTED)	30	3.0	2.5	-2.5	-3.0	.9	8.9	.5														
15. FEDERAL GOVERNMENT C & I (BILLIONS, CHAIN WEIGHTED)	28	-.1	.1	-.3	.3	.0	-1.3	.6														
16. STATE AND LOCAL GOVT C & I (BILLIONS, CHAIN WEIGHTED)	28	2.0	2.0	2.0	2.0	2.0	2.0	2.0														
17. CHANGE IN BUSINESS INVENTORIES (BILLIONS, CHAIN WEIGHTED)	29	1.5	4.5	-6.2	.3	-.3	-5.1	-16.2														
18. NET EXPORTS (BILLIONS, CHAIN WEIGHTED)	30	-18.9	-8.2	-7.6	-2.1	2.4	-114.2	-38.1														

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, THIRD QUARTER 1998.

TABLE THREE
ESTIMATED PROBABILITY OF DECLINE IN REAL GDP

ESTIMATED PROBABILITY (CHANCES IN 100)	NUMBER OF FORECASTERS					
	Q2 98 TO Q3 98	Q3 98 TO Q4 98	Q4 98 TO Q1 99	Q1 99 TO Q2 99	Q2 99 TO Q3 99	
10 OR LESS	18	16	12	10	11	
11 TO 20	8	10	10	12	11	
21 TO 30	1	1	4	3	4	
31 TO 40	2	1	3	4	3	
41 TO 50	1	2	1	1	1	
51 TO 60	0	0	0	0	0	
61 TO 70	0	0	0	0	0	
71 TO 80	0	0	0	0	0	
81 TO 90	0	0	0	0	0	
91 AND OVER	0	0	0	0	0	
NOT REPORTING	2	2	2	2	2	
MEDIAN PROBABILITY	10	10	15	18	18	
MEAN PROBABILITY	13	13	18	19	19	

NOTE: TOTAL NUMBER OF FORECASTERS REPORTING IS 30.

SOURCE: RESEARCH DEPARTMENT, FEDERAL RESERVE BANK OF PHILADELPHIA, SURVEY OF PROFESSIONAL FORECASTERS, THIRD QUARTER 1998.

TABLE FOUR

MEAN PROBABILITY OF CHANGES IN GDP AND PRICES
1997-98 AND 1998-99

MEAN PROBABILITY ATTACHED TO POSSIBLE
PERCENT CHANGES IN REAL GDP:

	1997-98	1998-99
6.0 OR MORE	.20	.30
5.0 TO 5.9	1.17	.80
4.0 TO 4.9	8.47	6.07
3.0 TO 3.9	62.90	19.47
2.0 TO 2.9	20.00	38.80
1.0 TO 1.9	5.01	21.19
0.0 TO 0.9	1.59	8.31
-1.0 TO -0.1	.47	3.68
-2.0 TO -1.1	.10	1.07
LESS THAN -2.0	.10	.30

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

	1997-98	1998-99
8.0 OR MORE	.00	.00
7.0 TO 7.9	.00	.07
6.0 TO 6.9	.00	.10
5.0 TO 5.9	.14	.53
4.0 TO 4.9	.77	1.83
3.0 TO 3.9	3.13	9.47
2.0 TO 2.9	12.35	39.60
1.0 TO 1.9	63.67	36.10
0.0 TO 0.9	18.60	10.42
WILL DECLINE	1.34	1.87

NOTE: TOTAL NUMBER OF FORECASTERS REPORTING IS 30.

SOURCE: RESEARCH DEPARTMENT, FEDERAL RESERVE BANK OF PHILADELPHIA, SURVEY OF PROFESSIONAL FORECASTERS, THIRD QUARTER 1998.

TABLE FIVE
LONG-TERM (10 YEAR) FORECASTS

SERIES: CPI INFLATION RATE	
STATISTIC	
MINIMUM	1.500
LOWER QUARTILE	2.375
MEDIAN	2.500
UPPER QUARTILE	2.850
MAXIMUM	3.500
MEAN	2.590
STD. DEV.	.431
N	30
MISSING	2

SOURCE: RESEARCH DEPARTMENT, FEDERAL RESERVE BANK OF PHILADELPHIA, SURVEY OF PROFESSIONAL FORECASTERS, THIRD QUARTER 1998.