



# SURVEY OF PROFESSIONAL FORECASTERS

Release Date: November 22, 2002

## FOURTH QUARTER 2002

### ***Forecasters Trim Their Estimates for Growth in 2003***

Expectations for growth in real GDP in 2003 are lower than they were three months ago, according to 35 forecasters surveyed by the Federal Reserve Bank of Philadelphia. In addition to cutting their estimates for growth in the current quarter, from 2.6 percent in the last survey to 1.3 percent at present, the forecasters are trimming 0.4 percentage point off their estimates for growth in 2003. At present, that estimate stands at 2.6 percent, down from 3.0 percent in the survey of three months ago. (This marks the second survey in which the forecasters have chopped 0.4 percentage point from their estimate for growth in 2003. In the second-quarter survey, the forecasters thought growth in 2003 would average 3.4 percent.) Despite the downward revision to growth over the next year, the forecasters expect growth to accelerate throughout the year, from an annual rate of 2.6 percent in the first quarter to 4.2 percent in the fourth quarter.

Downward revisions to growth are not leading to a much different outlook for inflation and unemployment. Measured by the year-over-year rate of change in the GDP price index, inflation will average 1.1 percent this year and 1.7 percent in 2003. These estimates are down just 0.1 percentage point from those of the last survey. Likewise, CPI inflation, measured on a fourth-quarter over fourth-quarter basis, will average 2.2 percent this year and in 2003, down 0.1 percentage point from the survey of three months ago.

The forecasters see unemployment averaging 5.8 percent in 2002 and 5.7 percent in 2003. The current estimate for 2002 is down just 0.1 percentage point from the last survey, and the current estimate for 2003 is unchanged from that previous survey.

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

	Real GDP (%)		Unemployment Rate (%)		CPI Inflation (%)	
	Previous	New	Previous	New	Previous	New
<i>Quarterly data:</i>						
2002: Q4	2.6	1.3	6.0	5.8	2.1	2.3
2003: Q1	3.4	2.6	5.8	5.9	2.3	2.2
Q2	3.1	3.1	5.7	5.8	2.4	2.2
Q3	3.7	3.3	5.6	5.6	2.4	2.2
Q4	N.A.	4.2	N.A.	5.6	N.A.	2.2
<i>Annual average data:</i>						
2002	2.3	2.3	5.9	5.8	2.3	2.2
2003	3.0	2.6	5.7	5.7	2.3	2.2

### **Downward Revisions to Interest-Rate Projections in 2003**

Downward revisions to interest-rate projections for 2003 accompany the outlook for slower growth in real GDP. The forecasters now expect the rate on three-month Treasury bills to average 1.6 percent in 2003. That estimate is down from the previous projection of 2.5 percent. Long-term rates, as measured by the rate on 10-year Treasury bonds, are projected to average 4.4 percent in 2003, down from 5.2 percent in the previous survey, as the table below shows.

3-Month Treasury Bill (%)		10-Year Treasury Bond (%)	
Previous	New	Previous	New
<i>Quarterly data:</i>			
2002: Q4	1.7	1.4	4.6
2003: Q1	1.9	1.3	4.9
Q2	2.3	1.4	5.2
Q3	2.7	1.8	5.3
Q4	N.A.	2.1	N.A.
			4.7
<i>Annual average data:</i>			
2002	1.7	1.6	4.8
2003	2.5	1.6	5.2
			4.4

### **Forecasters Raise the Risk of a Negative Quarter**

Downward revisions to growth are leading the forecasters to reassess the chance they assign to negative growth over the next four quarters. For the current quarter, the forecasters now peg that chance at 27 percent, up from 19 percent in the last survey. The risk of negative growth in the first quarter of 2003 is 24 percent, marking an increase of 8 percentage points from the previous estimate of 16 percent. Less pronounced upward revisions characterize the outlook for the following two quarters, as the following table shows.

Risk of a Negative Quarter (%)			
	Previous	New	
	Survey	Survey	
<i>Quarterly data:</i>			
2002: Q4	19	27	
2003: Q1	16	24	
Q2	16	18	
Q3	14	15	
Q4	N.A.	14	

### **Long-Term Expectations for Inflation Fall**

Expectations for long-term inflation, measured by the annual average rate of change in the CPI over the next 10 years, have fallen—though not by much. Currently, the forecasters' expectation stands at 2.45 percent, down just a bit from the long-standing estimate of 2.50 percent in previous surveys. Notably, the downward revision is somewhat more pronounced in the middle range of forecasts, currently 2.03 percent to 2.58 percent. In the survey of three months ago, the middle range of forecasts was 2.40 percent to 2.70 percent.

The Federal Reserve Bank of Philadelphia thanks the following forecasters for their participation in the surveys of this year:

**Joseph T. Abate**, Lehman Brothers; **David W. Berson**, Fannie Mae; **Brian A. Bethune**, Caterpillar, Inc.; **Joel I. Brest** and **Brian P. O'Connor**, MarketView Publishing Corp.; **Gary Ciminero**, CFA, Independent Economic Advisory; **Michael Cosgrove**, Econoclast; **Louis Crandall**, Wrightson / ICAP; **Richard DeKaser**, National City Corporation; **Rajeev Dhawan**, Georgia State University; **Michael R. Englund**, Standard & Poor's MMS; **Gerard F. Fuda**, Independent Economist; **James Glassman**, JP Morgan Chase & Co.; **James M. Goldberg**, Trust Company of the West; **William B. Hummer**, Wayne Hummer Investments; **Saul Hymans**, **Joan Crary**, and **Janet Wolfe**, RSQE, The University of Michigan; **Fred Joutz**, Benchmark Forecasts and Research Program on Forecasting, George Washington University; **Kurt Karl**, Swiss Re; **Dr. Irwin Kellner**, Hofstra University/CBS MarketWatch/North Fork Bank; **Allan R. Leslie**, Economic Consultant; **Joseph Liro**, Stone & McCarthy Research Associates; **John Lonski**, Moody's Investors Service; **Edward F. McKelvey**, Goldman Sachs; **Jim Meil**, Eaton Corporation; **Joel L. Naroff**, Naroff Economic Advisors; **Herbert E. Neil**, Financial and Economic Strategies Corp.; **Michael P. Niemira**, Bank of Tokyo-Mitsubishi, Ltd.; **Martin A. Regalia**, U.S. Chamber of Commerce; **David Resler**, Nomura Securities International, Inc.; **David F. Seiders** and **Stanley F. Duobinis**, National Association of Home Builders; **Constantine G. Soras**, Ph.D., Verizon Communications; **Bruce Steinberg**, Merrill Lynch; **Susan M. Sterne**, Economic Analysis Associates, Inc.; **Gary Thayer**, A.G. Edwards; **Lea Tyler**, Oxford Economics USA, Inc.; **Chris Varvares** and **Brian Dieffenderfer**, Macroeconomic Advisers, LLC; **Albert M. Wojnilower**; **Jay N. Woodworth**, Woodworth Holdings, Ltd.; **Richard Yamarone**, Argus Research Group; **Mark Zandi**, Economy.com.

This is a partial list of participants. We also thank those who wish to remain anonymous.

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 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/index.html>.

**SURVEY OF PROFESSIONAL FORECASTERS**  
**MAJOR MACROECONOMIC INDICATORS, 2002-2003**

	2002 Q4	2003			FORECAST		2002 2003	ANNUAL AVERAGE
		Q1	Q2	Q3	Q4			
<b>PERCENT GROWTH AT ANNUAL RATES</b>								
1. REAL GDP (BILLIONS, CHAIN WEIGHTED)	1.3	2.6	3.1	3.3	4.2	2.3	2.6	
2. GDP PRICE INDEX (1996=100)	1.7	2.0	1.8	1.9	2.0	1.1	1.7	
3. GROSS DOMESTIC PRODUCT (GDP) (\$ BILLIONS)	3.1	4.6	5.0	5.2	6.5	3.5	4.4	
4. CONSUMER PRICE INDEX (CPI-U) (ANNUAL RATE)	2.3	2.2	2.2	2.2	2.2	2.2	2.2	
<b>VARIABLES IN LEVELS</b>								
5. UNEMPLOYMENT RATE (PERCENT)	5.8	5.9	5.8	5.6	5.6	5.8	5.7	
6. 3-MONTH TREASURY BILL RATE (PERCENT)	1.4	1.3	1.4	1.8	2.1	1.6	1.6	
7. 10-YEAR TREASURY BOND YIELD (PERCENT)	4.0	4.1	4.2	4.5	4.7	4.6	4.4	

SOURCE: RESEARCH DEPARTMENT, FEDERAL RESERVE BANK OF PHILADELPHIA, SURVEY OF PROFESSIONAL FORECASTERS, FOURTH QUARTER 2002.

NOTES: THE FIGURES ON EACH LINE ARE MEDIANs OF 35 INDIVIDUAL FORECASTS. NA = NOT APPLICABLE.

**SURVEY OF PROFESSIONAL FORECASTERS**

**Fourth Quarter 2002**

**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 13.

TABLE ONE

**MAJOR MACROECONOMIC INDICATORS, 2002-2003  
MEDIAN OF FORECASTER PREDICTIONS**

	NUMBER OF FORE- CASTERS	ACTUAL 2002 Q3	2002 Q4	FORECASTS 2003				ACTUAL 2001	FORECAST 2002	FORECAST 2003
				Q1	Q2	Q3	Q4			
1. GROSS DOMESTIC PRODUCT (GDP) (\$ BILLIONS)	35	10466.1	10567.0	10687.0	10817.0	10955.0	11128.0	10082.2	10435.3	10889.4
2. GDP PRICE INDEX (1996=100)	35	110.79	111.26	111.80	112.31	112.84	113.40	109.42	110.67	112.50
3. CORPORATE PROFITS AFTER TAXES (\$ BILLIONS)	25	N.A.	463.8	478.0	486.4	497.0	511.8	470.9	451.0	498.3
4. UNEMPLOYMENT RATE (PERCENT)	34	5.7	5.8	5.9	5.8	5.6	5.6	4.8	5.8	5.7
5. INDUSTRIAL PRODUCTION (1992=100)	34	140.7	140.8	142.0	143.7	145.3	146.7	140.4	139.9	144.6
6. NEW PRIVATE HOUSING STARTS (ANNUAL RATE, MILLIONS)	35	1.71	1.66	1.66	1.64	1.64	1.66	1.60	1.69	1.64
7. CONSUMER PRICE INDEX (CPI-U) (ANNUAL RATE)	32	1.9	2.3	2.2	2.2	2.2	2.2	1.9	2.2	2.2
8. 3-MONTH TREASURY BILL RATE (PERCENT)	33	1.64	1.40	1.30	1.41	1.79	2.10	3.39	1.63	1.64
9. AAA CORPORATE BOND YIELD (PERCENT)	25	6.35	6.30	6.20	6.30	6.40	6.45	7.08	6.50	6.36
10. 10-YEAR TREASURY BOND YIELD (PERCENT)	34	4.26	3.99	4.09	4.22	4.46	4.66	5.02	4.60	4.36

SOURCE: RESEARCH DEPARTMENT, FEDERAL RESERVE BANK OF PHILADELPHIA, SURVEY OF PROFESSIONAL FORECASTERS, FOURTH QUARTER 2002.

TABLE ONE CONTINUED

**MAJOR MACROECONOMIC INDICATORS, 2002-2003  
MEDIAN OF FORECASTER PREDICTIONS**

	NUMBER OF FORE- CASTERS	ACTUAL 2002 Q3	2002 Q4	FORECASTS 2003				ACTUAL 2001	FORECAST 2002	FORECAST 2003
				Q1	Q2	Q3	Q4			
11. REAL GDP (BILLIONS, CHAIN WEIGHTED)	34	9465.2	9496.5	9556.8	9628.9	9706.9	9806.4	9214.5	9428.0	9675.4
12. TOTAL CONSUMPTION EXPENDITURES (BILLIONS, CHAIN WEIGHTED)	34	6610.8	6630.9	6667.2	6710.0	6759.0	6813.6	6377.2	6574.5	6736.3
13. NONRESIDENTIAL FIXED INVESTMENT (BILLIONS, CHAIN WEIGHTED)	33	1182.8	1187.3	1198.7	1213.8	1238.2	1260.4	1255.1	1184.9	1229.5
14. RESIDENTIAL FIXED INVESTMENT (BILLIONS, CHAIN WEIGHTED)	33	385.4	387.9	388.0	389.0	390.0	391.4	373.5	385.8	389.6
15. FEDERAL GOVERNMENT C & I (BILLIONS, CHAIN WEIGHTED)	32	613.1	620.6	629.6	635.6	640.9	645.2	570.6	610.0	637.9
16. STATE AND LOCAL GOVT C & I (BILLIONS, CHAIN WEIGHTED)	33	1098.1	1101.0	1104.9	1109.0	1114.5	1120.1	1069.4	1098.3	1112.2
17. CHANGE IN PRIVATE INVENTORIES (BILLIONS, CHAIN WEIGHTED)	34	1.9	13.0	21.5	26.4	31.0	34.8	-61.4	-2.5	28.8
18. NET EXPORTS (BILLIONS, CHAIN WEIGHTED)	34	-491.2	-491.6	-495.0	-500.8	-501.6	-505.6	-415.9	-479.1	-503.0

SOURCE: RESEARCH DEPARTMENT, FEDERAL RESERVE BANK OF PHILADELPHIA, SURVEY OF PROFESSIONAL FORECASTERS, FOURTH QUARTER 2002.

TABLE TWO

**MAJOR MACROECONOMIC INDICATORS, 2002-2003**  
**PERCENTAGE CHANGES AT ANNUAL RATES**

	NUMBER OF FORE- CASTERS	Q3 2002 TO Q4 2002	Q4 2002 TO Q1 2003	Q1 2003 TO Q2 2003	Q2 2003 TO Q3 2003	Q3 2003 TO Q4 2003	Q4 2003 TO 2002	2001 TO 2003
1. GROSS DOMESTIC PRODUCT (GDP) (\$ BILLIONS)	35	3.1	4.6	5.0	5.2	6.5	3.5	4.4
2. GDP PRICE INDEX (1996=100)	35	1.7	2.0	1.8	1.9	2.0	1.1	1.7
3. CORPORATE PROFITS AFTER TAXES (\$ BILLIONS)	25	7.4	12.8	7.2	9.0	12.4	-4.2	10.5
4. UNEMPLOYMENT RATE (PERCENT)	34	0.1	0.1	-0.1	-0.2	0.0	1.0	-0.1
5. INDUSTRIAL PRODUCTION (1992=100)	34	0.3	3.4	4.7	4.7	4.0	-0.4	3.4
6. NEW PRIVATE HOUSING STARTS (ANNUAL RATE, MILLIONS)	35	-10.6	0.0	-3.6	-1.2	4.5	5.4	-3.0
7. CONSUMER PRICE INDEX (CPI-U) (ANNUAL RATE)	32	0.4	-0.1	0.0	0.0	0.0	0.3	0.0
8. 3-MONTH TREASURY BILL RATE (PERCENT)	33	-0.24	-0.10	0.11	0.38	0.31	-1.76	0.01
9. AAA CORPORATE BOND YIELD (PERCENT)	25	-0.05	-0.10	0.10	0.10	0.05	-0.58	-0.14
10. 10-YEAR TREASURY BOND YIELD (PERCENT)	34	-0.28	0.11	0.13	0.24	0.20	-0.42	-0.24

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 2002.

TABLE TWO CONTINUED

**MAJOR MACROECONOMIC INDICATORS, 2002-2003**  
**PERCENTAGE CHANGES AT ANNUAL RATES**

	NUMBER OF FORE- CASTERS	Q3 2002		Q4 2002		Q1 2003		Q2 2003		Q3 2003		2001 TO 2003	
		Q4 2002	TO	Q1 2003	TO	Q2 2003	TO	Q3 2003	TO	Q4 2003	TO	2001 TO 2002	2002 TO 2003
11. REAL GDP (BILLIONS, CHAIN WEIGHTED)	34	1.3	2.6	3.1	3.3	4.2	2.3	2.6					
12. TOTAL CONSUMPTION EXPENDITURES (BILLIONS, CHAIN WEIGHTED)	34	1.2	2.2	2.6	3.0	3.3	3.1	2.5					
13. NONRESIDENTIAL FIXED INVESTMENT (BILLIONS, CHAIN WEIGHTED)	33	1.5	3.9	5.1	8.3	7.4	-5.6	3.8					
14. RESIDENTIAL FIXED INVESTMENT (BILLIONS, CHAIN WEIGHTED)	33	2.6	0.1	1.0	1.0	1.4	3.3	1.0					
15. FEDERAL GOVERNMENT C & I (BILLIONS, CHAIN WEIGHTED)	32	5.0	5.9	3.9	3.4	2.7	6.9	4.6					
16. STATE AND LOCAL GOVT C & I (BILLIONS, CHAIN WEIGHTED)	33	1.1	1.4	1.5	2.0	2.0	2.7	1.3					
17. CHANGE IN PRIVATE INVENTORIES (BILLIONS, CHAIN WEIGHTED)	34	11.1	8.5	4.9	4.6	3.8	58.9	31.3					
18. NET EXPORTS (BILLIONS, CHAIN WEIGHTED)	34	-0.4	-3.4	-5.8	-0.9	-4.0	-63.2	-23.9					

NOTE: FIGURES FOR PRIVATE 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 2002.

TABLE THREE

## ESTIMATED PROBABILITY OF DECLINE IN REAL GDP

ESTIMATED PROBABILITY (CHANCES IN 100)	NUMBER OF FORECASTERS					
	Q3 2002 TO Q4 2002		Q4 2002 TO Q1 2003		Q1 2003 TO Q2 2003	
	Q3 2003 TO Q4 2003	Q2 2003 TO Q3 2003	Q2 2003 TO Q3 2003	Q3 2003 TO Q4 2003	Q3 2003 TO Q4 2003	Q3 2003 TO Q4 2003
10 OR LESS	4	6	10	15	17	
11 TO 20	8	8	9	8	9	
21 TO 30	7	5	6	4	1	
31 TO 40	5	8	2	0	0	
41 TO 50	4	0	1	1	0	
51 TO 60	0	1	0	0	1	
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	7	7	7	7	7	
MEDIAN PROBABILITY	30	23	15	10	10	
MEAN PROBABILITY	27	24	18	15	14	

NOTE: TOTAL NUMBER OF FORECASTERS REPORTING IS 28.

SOURCE: RESEARCH DEPARTMENT, FEDERAL RESERVE BANK OF PHILADELPHIA, SURVEY OF PROFESSIONAL FORECASTERS, FOURTH QUARTER 2002.

TABLE FOUR

MEAN PROBABILITY OF CHANGES IN GDP AND PRICES  
 2001-2002 AND 2002-2003  
 MEAN PROBABILITY ATTACHED TO POSSIBLE  
 PERCENT CHANGES IN REAL GDP:

	2001-2002	2002-2003
6.0 OR MORE	0.00	0.57
5.0 TO 5.9	0.03	1.53
4.0 TO 4.9	1.03	5.97
3.0 TO 3.9	6.13	23.67
2.0 TO 2.9	80.03	45.03
1.0 TO 1.9	10.53	16.47
0.0 TO 0.9	2.03	5.17
-1.0 TO -0.1	0.20	1.17
-2.0 TO -1.1	0.00	0.33
LESS THAN -2.0	0.00	0.10

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

	2001-2002	2002-2003
8.0 OR MORE	0.00	0.00
7.0 TO 7.9	0.00	0.00
6.0 TO 6.9	0.03	0.03
5.0 TO 5.9	0.03	0.27
4.0 TO 4.9	0.03	0.93
3.0 TO 3.9	0.70	5.30
2.0 TO 2.9	9.87	26.57
1.0 TO 1.9	76.37	48.63
0.0 TO 0.9	12.70	16.23
WILL DECLINE	0.27	2.03

NOTE: TOTAL NUMBER OF FORECASTERS REPORTING IS 30.

SOURCE: RESEARCH DEPARTMENT, FEDERAL RESERVE BANK OF PHILADELPHIA, SURVEY OF PROFESSIONAL FORECASTERS, FOURTH QUARTER 2002.

TABLE FIVE  
LONG-TERM (10 YEAR) FORECASTS

SERIES: CPI INFLATION RATE	
STATISTIC	
MINIMUM	1.750
LOWER QUARTILE	2.025
MEDIAN	2.450
UPPER QUARTILE	2.575
MAXIMUM	3.500
MEAN	2.386
STD. DEV.	0.358
N	28
MISSING	7

SOURCE: RESEARCH DEPARTMENT, FEDERAL RESERVE BANK OF PHILADELPHIA, SURVEY OF PROFESSIONAL FORECASTERS, FOURTH QUARTER 2002.