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## ASA/NBER Business Outlook Survey: Fourth Quarter 1976

**ABSTRACT:** *The following summary based on a quarterly survey, which is conducted jointly by the American Statistical Association and the National Bureau of Economic Research, is not a formal research report. These quarterly summaries will be published in each issue of Explorations in Economic Research for informational purposes only and therefore have been exempted from the rules governing submission to, and critical review by, the Board of Directors of the National Bureau of Economic Research.*

Forecasters generally anticipate less economic growth next year than they did three months ago. Most were surprised by the recent slowdown of business activity and revised their projections downward but in the main by small amounts. The new forecasts by 36 members of the Business and Economic Statistics Section of the American Statistical Association spell out the prevailing view that the "pause" reflected in the recent readings on a number of important indicators will be over in the current quarter and that the U.S. economy is resuming its upward movement at a steady rate of about 5 percent per year in constant-dollar GNP. A moderate expansion, then, is seen as the most likely prospect for 1977, not a downturn in the "growth cycle," which would require a sequence of much lower though still positive growth rates, let alone a recession, which would require a sequence of absolute declines in output and employment. However, the

projected expansion would not be enough to bring the unemployment rate down to less than 7 percent of the labor force during 1977.

These summary observations are based on the medians of the individual predictions made in November 1976. The ASA surveys, conducted quarterly since 1968, elicit replies from many leading business, academic, and government economists who are professionally engaged in forecasting. Data from the surveys are analyzed for the ASA by the National Bureau of Economic Research, an independent nonprofit research institution. Dr. Charlotte Boschan of the NBER and Professor Victor Zarnowitz of the Graduate School of Business of the University of Chicago and NBER are responsible for these evaluations.

### **EXPANSION TO CONTINUE BUT REDUCTION OF UNEMPLOYMENT SLOW**

For the year 1977 as a whole, compared with 1976, the forecasters project economic growth of about 5 percent, somewhat less than the 5.2 percent predicted in the August survey, and considerably less than the 6.2 percent which is the group's average estimate of the 1975-1976 increase in real GNP. For the more sensitive index of industrial production, the reduction would be much larger—from 10.4 percent in 1975-1976 to 6.6 percent in 1976-1977. These differences, however, reflect in large part the low levels of activity in 1975 and the high growth rates of the earlier recovery stages. Between the periods 1975 Q4-1976 Q4 and 1976 Q4-1977 Q4 much smaller declines in the growth rates are anticipated, viz., from 5.6 percent to 5.3 percent for GNP in 1972 dollars and from 7.8 percent to 6.8 percent for industrial production.

The median predictions for the successive quarters of 1977 trace out a smooth upward movement in the economy's output at a pace which would be quite satisfactory if maintained near full employment levels but which is insufficient to regain such levels in the foreseeable future. The average unemployment rate, estimated at 7.6 percent of the labor force in 1976, is forecast to decline only to 7.3 percent in 1977. In quarterly terms, the forecasters expect the unemployment rate to decline from its last recorded value of 7.8 percent in 1976 Q3 to 7.0 percent in 1977 Q4.

### **ALL QUIET ON THE INFLATION FRONT?**

Forecasters slightly reduced their projections of the inflation rate between August and November 1976. In the previous ASA/NBER survey, the rise in

the GNP implicit price index from 1976 Q3 to 1977 Q3 was set at 5.9 percent; in the latest survey, the corresponding median forecast is 5.5 percent. However, the dominant feature of the November survey is the stability of the predicted rates of inflation. The level of GNP prices is to increase from 1.3 to 1.5 percent in each quarter of 1977, which adds up to a rise of slightly more than 5.6 percent in the period 1976 Q4–1977 Q4. It is estimated that the GNP price deflator (1972=100) will have the average values of 133.7 and 141.0 in 1976 and 1977, respectively, which yields inflation forecasts of 5.1 percent for 1975–1976 and 5.4 percent for 1976–1977. Thus, the survey participants foresee on the average no significant tendency for the inflation to either accelerate or decelerate.

### SECTORS OF RELATIVE WEAKNESS AND STRENGTH

Consumer outlays for durable goods are expected to increase at annual rates of about 11 percent—approximately equal to those of current-dollar GNP. In 1976, the rise in these expenditures substantially exceeded the rise in GNP (the estimates here are 18.9 percent and 11.7 percent, respectively). This sector, then, is seen as contributing much less to the economy's growth in 1977 than it did earlier in the 1975–1976 recovery.

Investment in residential structures will be a source of greater strength than consumer durables, even though its growth in 1977 will be considerably slower than it was during much of the 1975–1976 recovery. According to the median survey forecast, housing starts will rise 1.7–1.8 percent per quarter during the year 1977. For the year as a whole the gain over 1976 will be 14.8 percent—nearly three times the concurrent growth in real GNP, although less than half the percentage gain in housing starts in 1976 relative to 1975.

Inventory investment will level off at about the levels of 1976 or increase just a fraction. The average forecasts for 1976 and 1977 are \$14.8 billion and \$15.3 billion, respectively. This means that this sector is not expected to make any significant contribution to business expansion in the year ahead.

Forecasters continue to see a source of strength in business expenditures on plant and equipment, although their projections of this variable were scaled down a little between the surveys of August and November 1976. These expenditures (in current dollars at annual rate) are expected to increase from \$126.4 billion in 1976 Q4 to \$144 billion in 1977 Q4, or by nearly 14 percent. This would make business fixed investment account for a somewhat larger share of GNP and would signal a gain of perhaps 8 to 10 percent in real capital formation of the business sector.

Rising recorded profits are often assumed to improve the near-term outlook for profits and investment, but other factors may at times interfere with this chain of influence. Thus recently, large increases in corporate profits after taxes were not nearly matched by increases in outlays for plant and equipment (in 1976 the former are estimated at about 28 percent, the latter at 7 percent). In 1977 profits are expected to rise some 13 percent over 1976, close to the predicted gain in business fixed-investment outlays.

### PROBABILITY DISTRIBUTIONS

What are the probabilities that GNP will rise 2 to 2.9 percent, 3 to 3.9 percent, or more, between the years 1976 and 1977? What are the analogous probabilities for the implicit price deflator? The forecasters are given a long list of such intervals and they answer the above questions by writing in the probabilities they attach to the different outcomes. This time the reported probabilities for current dollar GNP are heavily concentrated in four of the percentage intervals, as follows: +9 to +9.9 percent, 16.0 (chances in 100); +10 to +10.9 percent, 30.6; +11 to +11.9 percent, 28.3; and +12 to +12.9 percent, 11.8 (so the whole range from +9 to +12.9 percent accounts for 86.7 percent of the mean probability distribution). For the price changes, the concentration is in three intervals: +4 to +4.9 percent, 14.8; +5 to +5.9 percent, 45.4; and +6 to +6.9 percent, 22.6 (for a total of 82.8 percent of the mean probability distribution).

The distributions of the forecasters' assessments of the probability that the economy's output will decline (recession) have means increasing from 6 to 13 chances in 100 over the period 1976 Q4-1977 Q4.

### ASSUMPTIONS

Of the 29 survey participants reporting their assumptions about fiscal policy, 17 thought that there would be some tax reduction or rebate or some unspecified but "more expansionary" action by the Federal government. Twelve respondents assumed that there would be "no change" in fiscal or tax policy. Nineteen forecasters proceeded on the premise that monetary policy would be "unchanged" or in conformity with the announced targets, four assumed a more accommodative, and two a more restrictive policy. Sixteen forecasters made explicit the assumption that "OPEC prices" will rise, but only four of them saw an increase of more than 10 percent. Apparently none of the participants anticipated a major energy crisis or major wars or strikes.

**TABLE 1 Projections of GNP and Other Economic Indicators, 1976-1977 Q4**

Indicator	Number of Forecasters	Actual 1976		Forecast 1977				Actual 1975		Annual Forecast 1976-1977	
		Q3	Q4	Q1	Q2	Q3	Q4	1975	1976	1976	1977
1. Gross national product (\$bil.)	36	1709.7	1753	1801	1849	1898	1952	1516.3	1694	1875	
2. GNP implicit price deflator (1972 = 100)	36	134.4	136.2	138.1	140.0	141.8	143.9	127.2	133.7	141.0	
3. GNP in constant dollars (bil. 1972 \$)	35	1272.2	1287 <sup>a</sup>	1304 <sup>a</sup>	1320 <sup>a</sup>	1337 <sup>a</sup>	1355 <sup>a</sup>	1191.7	1266 <sup>a</sup>	1329 <sup>a</sup>	
4. Industrial production (1967 = 100)	32	131.1	133	135	138	140	142	117.8	130.1	139	
5. Unemployment rate (percent)	37	7.8	7.7	7.6	7.3	7.2	7.0	8.5	7.6	7.3	
6. Corporate profits after taxes (\$bil.)	30	84.5 <sup>b</sup>	87.0	90.2	93.5	96.0	98.0	65.3	83.5	94.4	
7. Plant and equipment expenditures OBE-SEC (\$bil.)	32	122.96 <sup>c</sup>	126.4	130.3	135.0	140.2	144.0	112.78	120.55	137.4	
8. New private housing units started (ann. mil.)	35	1.579	1.67	1.70	1.73	1.76	1.79	1.160	1.52	1.74	
9. Change in bus. inventories GNP accounts (\$bil.)	33	14.4	14.0	14.7	14.9	15.5	16.0	-14.6	14.8	15.3	
10. Consumer expenditures for durable goods (\$bil.)	33	158.1	162.0	165.9	171.2	176.4	179.9	131.7	156.6	173.4	
11. National defense purchases, GNP accounts (\$bil.)	32	88.6	90.7	92.6	93.7	94.8	96.9	84.3	88.1	94.5	

SOURCE: American Statistical Association and National Bureau of Economic Research, Median Forecasts of Business Outlook, Survey, November 1976

<sup>a</sup> Median of individual forecasts of real GNP derived from predicted current dollar GNP and the price deflator.

<sup>b</sup> Actual not available. Based on average forecast.

<sup>c</sup> Anticipated.

**TABLE 2 Projected Percentage Changes in GNP and Other Economic Indicators, 1976-1977 Q4**

Indicator	Number of Forecasters	Q2 76	Q3 76	Q4 76	Q1 77	Q2 77	Q3 77	Q4 77	1975	1976
		to Q3 76	to Q4 76	to Q1 77	to Q2 77	to Q3 77	to Q4 77	to 1976	to 1977	
1. Gross national product (\$bil.)	36	2.1	2.5	2.7	2.7	2.7	2.8	2.8	11.7	10.8
2. GNP implicit price deflator (1972 = 100)	36	1.1	1.3	1.4	1.4	1.3	1.5	1.5	5.1	5.4
3. GNP in constant dollars (bil. 1972 \$) <sup>a</sup>	35	1.0	1.2	1.3	1.2	1.3	1.3	1.3	6.2	5.0
4. Industrial production (1967 = 100)	32	1.3	1.4	1.5	2.2	1.4	1.4	1.4	10.4	6.6
5. Unemployment rate (percent) <sup>b</sup>	37	0.4	-0.1	-0.1	-0.3	-0.1	-0.2	-0.2	-0.9	-0.3
6. Corporate profits after taxes (\$bil.)	30	2.2	3.0	3.7	3.7	2.7	2.1	2.1	28.0	12.9
7. Plant and equipment expenditures OBE-SEC (\$bil.)	32	4.1	2.8	3.1	3.6	3.9	2.7	2.7	6.9	14.0
8. New private housing units started (ann. rate mil.)	35	10.2	5.8	1.8	1.8	1.7	1.7	1.7	31.0	14.8
9. Change in bus. inventories, GNP accounts (\$bil.) <sup>c</sup>	33	-1.6	-0.4	0.7	0.2	0.6	0.5	0.5	29.4	0.5
10. Consumer expenditures for durable goods (\$bil.)	33	2.0	2.5	2.4	3.2	3.0	2.0	2.0	18.9	10.7
11. National defense purchases, GNP accounts (\$bil.)	32	2.0	2.4	2.1	1.2	1.2	2.2	2.2	4.5	7.3

SOURCE: Computed from Table 1.

<sup>a</sup> See Table 1.

<sup>b</sup> Change in rate, in percentage points.

<sup>c</sup> Change in billions of dollars.

**TABLE 3 Estimated Probability of Decline in GNP in Constant Dollars**

Estimated probability (chances in 100)	Q3 76 to Q4 76		Q4 76 to Q1 77		Q1 77 to Q2 77		Q2 77 to Q3 77		Q3 77 to Q4 77	
Less than 1	19		15		15		13		10	
1-10	13		13		15		12		11	
11-20	3		6		3		8		9	
21-30	1		3		3		3		4	
31-40	0		0		1		1		2	
41-50	1		0		0		0		1	
51-60	0		0		0		0		0	
61-70	0		0		0		0		0	
71-80	0		0		0		0		0	
81 and over	0		0		0		0		0	
Median probability (chances in 100)	0		4		3		5		9	
Mean probability (chances in 100)	6.0		6.8		7.8		9.7		13.0	

Number of forecasts

SOURCE: American Statistical Association and National Bureau of Economic Research, Business Outlook Survey, November 1976.  
NOTE: The total number of forecasters included is 36.

**TABLE 4 Mean Probability Distributions of Changes in GNP and Prices, 1976-1977**

Percent Changes 1976-1977	Mean Probability Attached to Possible Percent Changes, 1976-1977	
	GNP in Current \$	Implicit Price Deflator
+16 or more	0.1	0.0
+15.0 to +15.9	0.3	0.0
+14.0 to +14.9	0.8	0.0
+13.0 to +13.9	4.0	0.0
+12.0 to +12.9	11.8	0.0
+11.0 to +11.9	28.3	0.0
+10.0 to +10.9	30.6	0.0
+ 9.0 to + 9.9	16.0	0.8
+ 8.0 to + 8.9	6.5	1.7
+ 7.0 to + 7.9	1.0	1.7
+ 6.0 to + 6.9	0.4	8.3
+ 5.0 to + 5.9	0.2	22.6
+ 4.0 to + 4.9	0.1	45.4
+ 3.0 to + 3.9	0.0	14.8
+ 2.0 to + 2.9	0.0	3.3
		1.3

SOURCE: American Statistical Association and National Bureau of Economic Research, Business Outlook Survey, November 1976.  
NOTE: The total number of forecasters included is 36.

**TABLE 5 Forecasting Methods Used**

Method	Number of Forecasters		Number of Forecasters Using Each Method Who Ranked It				
	Using	Not Using	Most Important	Second Most Important	Third Most Important	Fourth Most Important	Fifth Most Important
Informal GNP model	26	11	16	8	2	0	0
Leading indicators	22	15	1	8	10	2	1
Anticipations surveys	23	14	0	12	7	4	0
Econometric model (outside)	20	17	7	6	2	5	0
Econometric model (own)	8	29	5	1	0	1	1
Other methods	7	30	4	2	1	0	0

SOURCE: American Statistical Association and National Bureau of Economic Research, Business Outlook Survey, November 1976.

**TABLE 6 Forecasters' Affiliation**

Primary Affiliation	Number of Forecasters
Manufacturing	8
Commercial banking	2
Other financial institutions	3
Consulting or research	11
Merchandising	0
Trade association	1
Academic	3
Government	4
Labor union	0
Other	5
Total	37

SOURCE: American Statistical Association and National Bureau of Economic Research, Business Outlook Survey, November 1976.

**TABLE 7 Key Assumptions Underlying Forecasts**

Assumption	Number of Forecasters
<b>Monetary Policy</b>	
Policy unchanged, increase in $M_1$ on target	19
More accommodative policy	4
More restrictive policy	2
<b>Fiscal Policy</b>	
No change	3
More expansionary	2
Tax policy:	
No change	5
Some reduction or rebate	1
No cut	4
Deficit \$50 billion or more	4
<b>Energy Problem</b>	
No major crisis	6
OPEC prices rise moderately	7
rise about 10%	5
rise more than 10%	4
<b>Wages and Prices</b>	
No incomes policy	5
Moderate incomes policy	3
No major strikes, no high wage settlement	3
Wage settlements up about 10%, after strike	2
<b>Other</b>	
No major wars	9
No major changes initiated by Carter administration	2

SOURCE: American Statistical Association and National Bureau of Economic Research, Business Outlook Survey, November 1976.


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11. I certify that the statements made by me above are correct and complete.

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Business Manager

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