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ASA/NBER Business Outlook Survey: Third Quarter 1976

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.

Although data for some of the indicators covered in the survey have recently undergone large revisions, forecasts of percentage changes in these series have not. Growth in real GNP from 1975 to 1976 is still predicted to be 6.4 percent, the same figure as in the May 1976 survey. Industrial production is estimated to rise 10.5 percent during 1976, one percentage point more than was predicted in May. The inflation rate in terms of the 1975-1976 increase in the implicit GNP price index is projected at 5.2 percent, which spells a small improvement in the expectations (the May survey forecast was 5.5 percent). Forecasters have become somewhat more optimistic about corporate profits and investment in plant and equipment, and somewhat less optimistic about consumer outlays for durable goods and new housing starts, but the changes in their predictions

are small and nearly balance each other in their effects on the outlook for the economy as a whole.

The following observations are based on the medians of detailed numerical forecasts submitted in August 1976 by 36 members of the Business and Economic Statistics Section of the American Statistical Association. The ASA surveys have been conducted quarterly since 1968, and the participants include 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, and 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.

THE CONSENSUS FORECAST: A YEAR OF MODERATE AND STEADY EXPANSION

GNP in 1972 dollars will increase from \$1,276 billion annual rate in the current quarter (1976:3) to \$1,342 billion a year hence (1977:3). According to the median survey forecast, this growth of 5.2 percent will be fairly even, with the quarterly increments varying from 1.1 to 1.4 percent. The projected rate of growth is smaller than the average rate recorded so far in this recovery (6.8 percent for 1975:2-1976:2).

Forecasts of the industrial production index attribute a large part of the economy's growth to the output of manufacturing, mining, and utilities, which is expected to rise 7.6 percent in the year ending in the third quarter of 1977.

An important feature of the new survey predictions is that they foresee a shift in the sources of the expansion, with business capital outlays providing much more and consumer expenditures less of the upward thrust.

FASTER RISE IN BUSINESS INVESTMENT

Expenditures on new plant and equipment are expected to rise from \$124 billion annual rate in the current quarter to \$145 billion a year later—nearly 17 percent. This contrasts with the projected rises of only 9 percent in the year 1976 compared with 1975 and 11 percent between 1975:4 and 1976:4 (the latter estimate is based on the most recent Commerce survey of business investment anticipations). These figures are all in current dollars. When deflated by means of extrapolating the latest change in the

fixed weighted price index for the gross business product, the August survey forecast yields a gain in business capital formation of more than 11 percent in constant dollars.

Business investment in inventories is projected at annual rates of \$14 billion to \$17 billion for the current and each of the four subsequent quarters. This amounts simply to an extrapolation of the recently prevailing change in business inventories and does not represent any significant revision of the May forecast.

SLOWER RISE IN CONSUMER OUTLAYS

Forecasters anticipate an increase of 12 percent in expenditures on consumer durable goods, from \$159 billion in 1976:3 to \$178 billion in 1977:3. This is a definite reduction from both the recently observed and the previously predicted rises in this category of consumer spending; for example, the gain in 1976 over 1975 is estimated at more than 28 percent.

New private housing starts are expected to increase from 1.52 million annual rate in 1976:3 to 1.73 million in 1977:3, or by nearly 14 percent. These forecasts are slightly scaled down from the previous survey but they essentially envisage a continuation of the trend in housing starts that was set earlier this year. (The initial recovery of the housing sector from its deep trough in 1975 proceeded at a much faster pace.)

GOOD OUTLOOK FOR PROFITS

Corporate profits after taxes will rise 14 percent in the year ahead, from \$87.3 billion (annual rate) in 1976:3 to \$99.5 billion in 1977:3, according to the median ASA/NBER survey forecast. Although much less than the average relative gain made earlier in this recovery (profits in 1976 are anticipated to exceed those in 1975 by 32 percent), this rise would still be very large compared to the concurrent increases in total GNP and most of its major components. The relatively optimistic forecasts for business investment and profits presumably support each other.

UNEMPLOYMENT REDUCTIONS VERY GRADUAL

The rate of unemployment (percent of labor force) is expected to decline gradually, from 7.3 in 1976:3 to 6.6 in 1977:3. These reductions—by less than 0.2 of one percentage point per quarter—would be slow by comparison with the pattern of developments during most U.S. expansions of the

past, and they would leave the unemployment rate unusually high for this stage of the expansion.

INFLATION RATE APPRECIABLY HIGHER BUT STABLE IN 1977

The GNP implicit price deflator (1972 = 100) is to increase from 134.6 in 1976:3 to 142.6 in 1977:3. The implied rate of inflation is 5.9 percent, up significantly from the 5.2 percent rate estimated for the year 1976. The corresponding quarterly rates are 1.4 percent in the current and each of the next two quarters, 1.5 percent in 1977:2 and 1977:3.

PROBABILITY DISTRIBUTIONS AND DISPERSION OF FORECASTS

Forecasters report the probabilities they attach to various percentage changes in GNP and in the implicit price deflator between the years 1975 and 1976. For current dollar GNP the probabilities are heavily concentrated in the range from +11 to +13.9 percent. For the three classes in that range the mean probabilities add up to 86.1 percent. Similarly, probabilities of changes in the price deflator are highly concentrated in the three classes between 4 and 6.9 percent increase (88.6 percent).

The participants in the survey are reasonably confident that the expansion in real GNP will continue for at least another year. The distributions of their assessments of the probability that the economy's output will decline have means increasing from about 4 to 16 chances in 100 over the period 1976:3-1977:3.

In the current survey the forecasts for real GNP and for the GNP price deflator are relatively closely clustered, while the dispersions of forecasts for corporate profit and for plant and equipment expenditures are relatively large:

	Coefficient of Variation of Forecast for			
	1 Quarter Span		5 Quarters Span	
	Current Survey Q3 1976	Last Survey Q2 1976	Current Survey Q3 1976	Last Survey Q2 1976
GNP in constant prices	0.6	0.7	1.4	3.0
GNP implicit price deflator	0.2	0.6	0.8	3.2
Corporate profits after taxes	5.6	3.3	10.0	6.3
Plant and equipment expenditures	5.6	1.9	8.0	6.2

This suggests decreasing uncertainty about the growth of GNP and inflation, but increasing uncertainty about the rise in corporate profits and expenditures for plant and equipment.

ASSUMPTIONS

As in the previous survey, most forecasters assume that the Fed will manage to control the growth in money supply in accordance with its announced targets; only a few presuppose a more restrictive monetary policy. The prevailing assumption for fiscal policy is "no change" or "tax cut extended through forecast period." No severe energy or other international crises are expected, though some fear price increases in the energy sector. Also, many forecasters state that they assume no major wars, strikes, and inflationary wage settlements. Very few respondents refer to the election or make their forecasts explicitly conditional on its outcome.

TABLE 1 Projections of GNP and Other Economic Indicators, 1976-1977 Q3

Indicator	Number of Fore- casters	Actual 1976				Forecast 1977			Annual Actual Forecast	
		Q2	Q3	Q4	Q1	Q2	Q3	1975	1976	
1. Gross national product (\$bil.)	36	1673	1718	1766	1815	1864	1913	1516.3	1697.8	
2. GNP implicit price deflator (1972 = 100)	36	132.8	134.6	136.5	138.4	140.5	142.6	127.2	133.8	
3. GNP in constant dollars (bil. 1972 \$)	36	1259.7	1276 ^a	1294 ^a	1310 ^a	1325 ^a	1342 ^a	1191.7	1268 ^a	
4. Industrial production (1967 = 100)	35	129.3	131	134	136	139	141	117.8	130.2	
5. Unemployment rate (percent)	35	7.4	7.3	7.1	6.9	6.7	6.6	8.5	7.4	
6. Corporate profits after taxes (\$bil.)	33	83.7 ^b	87.3	91.4	94.3	97.5	99.5	65.3	86.1	
7. Plant and equipment expenditures OBE-SEC (\$bil.)	31	121.14 ^c	124.2	129.2	134.5	140.5	145	112.78	123.2	
8. New private housing units started (ann. rate mil.)	34	1.430	1.52	1.59	1.65	1.70	1.73	1.160	1.491	
9. Change in bus. inventories, GNP accounts (\$bil.)	33	13.3	13.8	14.0	15.0	17.0	16.0	-14.6	13.8	
10. Consumer expenditures for durable goods (\$bil.)	33	154.1	158.6	163.5	169.0	173.5	177.6	131.7	156.9	
11. National defense purchases, GNP accounts (\$bil.)	33	88.4	89.9	92.0	93.6	95.0	96.4	84.3	89.3	

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

^aMedian of individual forecasts of real GNP derived from predicted current dollar GNP and the price deflator.

^bActual not available. Based on average forecast.

^cAnticipated.

TABLE 2 Projected Percentage Changes in GNP and Other Economic Indicators, 1976-1977 Q3

Indicator	Number of Fore- casters	Q1 76	Q2 76	Q3 76	Q4 76	Q1 77	Q2 77	Q3 77	1975
		to Q2 76	to Q3 76	to Q4 76	to Q1 77	to Q2 77	to Q3 77	to Q3 77	to 1976
1. Gross national product (\$bil.)	36	2.2	2.7	2.8	2.8	2.7	2.6	2.6	12.0
2. GNP implicit price deflator (1972 = 100)	36	1.1	1.4	1.4	1.4	1.5	1.5	1.5	5.2
3. GNP in constant dollars (bil. 1972 \$P)	36	1.1	1.3	1.4	1.2	1.1	1.3	1.3	6.4
4. Industrial production (1967 = 100)	35	1.8	1.3	2.3	1.5	2.2	1.4	1.4	10.5
5. Unemployment rate (percent)	35	0.2	0.1	0.2	-0.2	-0.2	-0.1	-0.1	-1.1
6. Corporate profits, after taxes (\$bil.)	33	5.0	4.3	4.7	3.2	3.4	2.1	2.1	31.8
7. Plant and equipment expenditures, CBE: GFC (\$bil.)	31	5.6	2.5	4.0	4.1	4.5	3.2	3.2	9.2
8. New private housing units started (ann. rate mil.)	34	2.1	6.3	4.6	3.8	3.0	1.8	1.8	28.5
9. Change in bus. inventories, C&I, ac counts (\$bil.)*	33	1.5	0.5	0.2	1.0	2.0	1.0	1.0	28.4
10. Consumer expenditure for durable goods (\$bil.)	33	1.8	2.9	3.1	3.4	2.7	2.4	2.4	19.1
11. National defense purchases, C&I, ac counts (\$bil.)	33	2.6	1.7	2.6	1.6	1.5	1.6	1.6	5.9

SOURCE: Computed from Table 1.

* See Table 1.

b. Change in rate, in percentage points.

c. Change in billions of dollars.

TABLE 3 Estimated Probability of Decline in GNP in Constant Dollars

Estimated Probability (chances in 100)	Q2 76 to Q3 76		Q3 76 to Q4 76		Q4 76 to Q1 77		Q1 77 to Q2 77		Q2 77 to Q3 77	
Less than 1	17		14		11		10		7	
1 - 10	17		18		15		12		9	
11 - 20	1		2		6		8		9	
21 - 30	0		1		3		4		8	
31 - 40	0		0		0		1		2	
41 - 50	1		1		1		1		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)	1		3		5		7		13	
Mean probability (Chances in 100)	4.4		6.3		9.4		12.2		16.1	

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

TABLE 4 Mean Probability Distributions of Changes in GNP and Prices, 1975-1976

Percent Changes 1975-1976	Mean Probability Attached to Possible Percent Changes, 1975-1976	
	GNP in Current \$	Price Deflator
+16 or more	0.0	0.0
+15.0 to +15.9	0.3	0.0
+14.0 to +14.9	2.1	0.0
+13.0 to +13.9	11.5	0.3
+12.0 to +12.9	41.1	0.4
+11.0 to +11.9	33.5	1.6
+10.0 to +10.9	7.0	0.4
+ 9.0 to + 9.9	1.1	0.3
+ 8.0 to + 8.9	0.3	0.9
+ 7.0 to + 7.9	0.7	5.1
+ 6.0 to + 6.9	1.4	22.9
+ 5.0 to + 5.9	0.9	48.2
+ 4.0 to + 4.9	0.0	17.5
+ 3.0 to + 3.9	0.0	2.2
+ 2.0 to + 2.9	0.0	0.1

SOURCE: American Statistical Association and National Bureau of Economic Research, Business Outlook Survey, August 1976.
NOTE: The total number of forecasters included is 35.

TABLE 5 Forecasting Methods Used

Method	Number of Forecasters		Number of Forecasters Using Each Method Who Ranked It				
	Using	Not Using	Most Impor- tant	Second Most Impor- tant	Third Most Impor- tant	Fourth Most Impor- tant	Fifth Most Impor- tant
Informal GNP model	28	12	21	5	1	1	0
Leading indicators	21	15	0	8	11	2	0
Anticipations surveys	20	16	0	6	10	4	0
Econometric model (outside)	23	13	3	13	2	5	0
Econometric model (own)	8	28	6	1	0	0	1
Other methods	4	32	3	0	0	1	0

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

TABLE 6 Forecasters' Affiliation

Primary Affiliation	Number of Forecasters
Manufacturing	9
Commercial banking	2
Other financial institutions	4
Consulting or research	8
Merchandising	0
Trade association	1
Academic	4
Government	3
Labor union	0
Other	5
Total	36

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

TABLE 7 Key Assumptions Underlying Forecasts

Assumption	Number of Forecasters
Energy Problem	
No severe crisis	17
Growing shortages	2
Increase in prices	11
Monetary Policy	
Increase in money supply is on target	20
More restrictive	3
Fiscal Policy	
As budgeted	3
Shrinking deficit	3
Tax cut extended through forecast period	7
No change in policy	9
Other	
No major international crisis, no war	11
No incomes policy	5
Beginning incomes policy	3
No major strikes	10
Wage settlements somewhat inflationary	2
Wage settlements will be more moderate	2
Carter will win election	3

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