

FEDERAL RESERVE statistical release



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February 15, 1984

INDUSTRIAL PRODUCTION

Industrial production increased an estimated 1.1 percent in January following revised increases of 0.6 and 0.3 percent in December and November, respectively. The increases for December and November had previously been estimated at 0.5 and 0.7 percent. Output gains in January were sizable and widespread in most market groupings. At 158.1 percent of the 1967 average, industrial output in January 1984 was almost 3 percent above its last peak reached in July 1981.

Market Groupings

Production of durable consumer goods rose 2.4 percent in January reflecting increases in the output of home goods, autos and consumer-use trucks. Autos were assembled at an annual rate of 8.1 million units and an 8.3 million rate is currently scheduled for February. Output of nondurable consumer goods increased only 0.4 percent as the gains observed in most components were partially offset by reduced residential use of electricity compared to the exceptionally heavy use in December. Business equipment production increased 1.1 percent; gains occurred in most groups and were especially large in transit equipment. Output of construction supplies advanced 1.5 percent following declines in the final two months of 1983. Materials output increased 1.0 percent in January. Sharp gains in metals and parts for consumer goods boosted durable materials output which overall had increased only slightly in December. Output of nondurable materials was up 0.4 percent in January; production of energy materials was about unchanged as sharp gains in coal production were largely offset by decreased electricity generation.

Industry Groupings

Manufacturing output increased 1.3 percent in January with durables up 1.8 percent and nondurables up 0.6 percent. Mining output, which early in this recovery had lagged somewhat, rose sharply again in January. Utility output was reduced 2.3 percent.

Industrial Production: Summary

Seasonally adjusted

Item	Index, 1967 = 100		Monthly percent change					Current month from a year ago
	1983 DEC.	1984 JAN.	SEP.	OCT.	NOV.	DEC.	JAN.	
Total	156.4	158.1	1.3	.8	.3	.6	1.1	15.1
Market Groupings								
Products, total	157.1	158.8	1.1	.5	.3	.7	1.1	12.7
Final products	154.9	156.6	.9	.4	.5	1.0	1.1	11.8
Consumer goods	158.0	159.6	.6	-.3	-.3	1.0	1.0	11.1
Durable goods	158.3	162.1	2.1	-.5	-.5	1.5	2.4	23.2
Nondurable goods	157.8	158.5	.1	-.1	-.3	.7	.4	6.9
Business equipment	165.4	167.3	1.3	1.6	1.7	.8	1.1	14.1
Defense and space	126.0	127.9	1.3	.9	.9	1.6	1.5	9.9
Intermediate products	165.1	167.0	2.0	.7	-.5	-.4	1.2	16.2
Construction supplies	150.5	152.7	1.6	.6	-.3	-.9	1.5	20.2
Materials	155.5	157.0	1.7	1.2	.5	.5	1.0	18.9
Industry Groupings								
Manufacturing	157.0	159.0	1.5	.7	.2	.3	1.3	16.3
Durable	144.3	146.9	2.0	.8	.5	.6	1.8	19.9
Nondurable	175.5	176.6	1.0	.6	-.2	.1	.6	12.2
Mining	124.5	126.2	.9	1.0	2.2	3.0	1.4	3.5
Utilities	183.2	178.9	.0	-1.6	-.1	3.9	-2.3	9.7

FEDERAL RESERVE

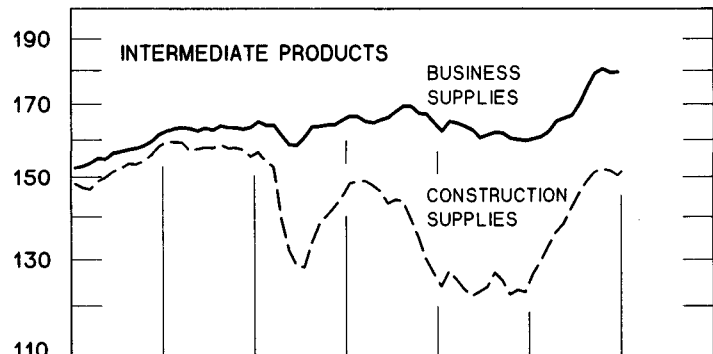
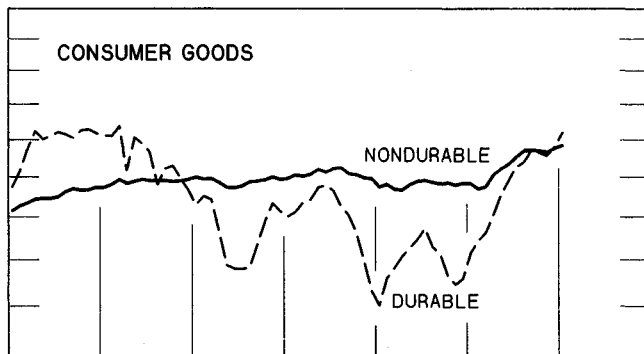
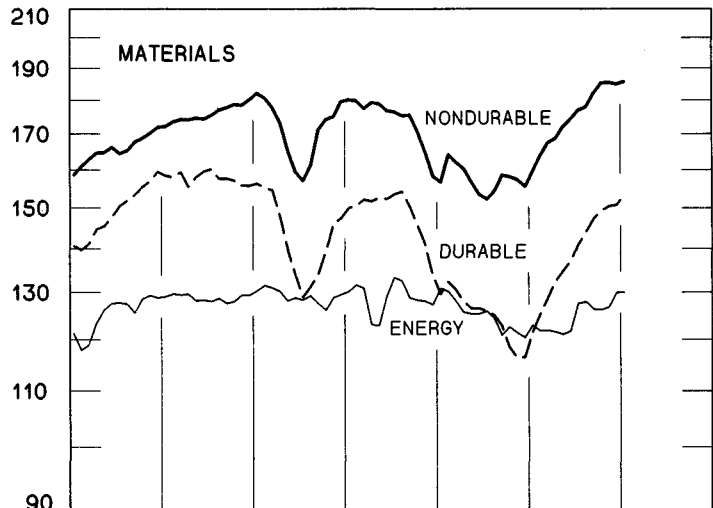
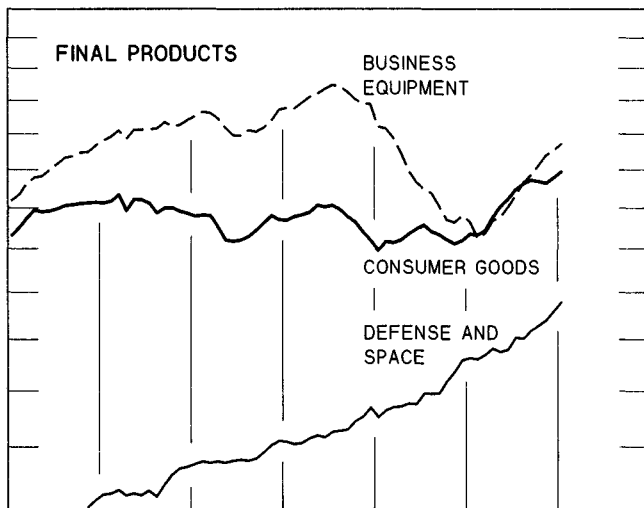
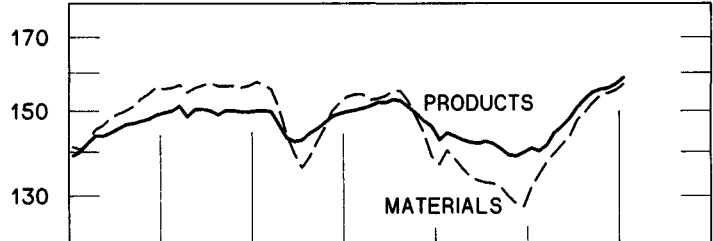
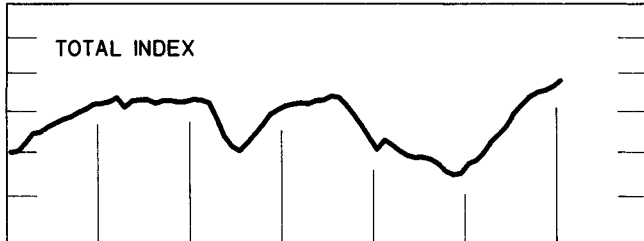


Industrial Production

INDUSTRIAL PRODUCTION

JANUARY DATA

SEASONALLY ADJUSTED, RATIO SCALE, 1967=100



1969-70=100

ANNUAL RATE, MILLIONS OF UNITS

1967=100

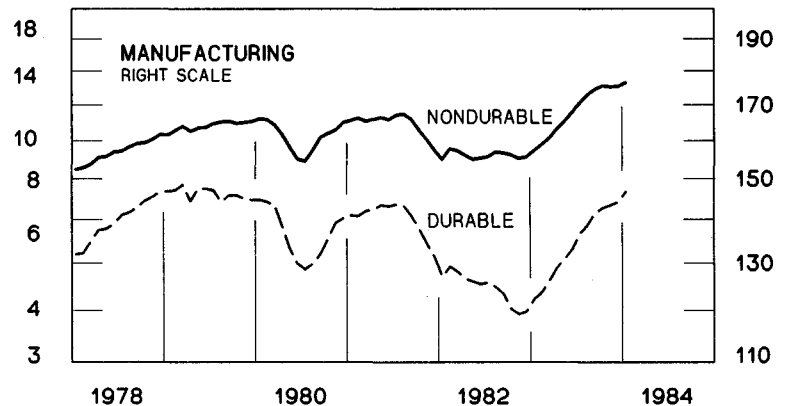
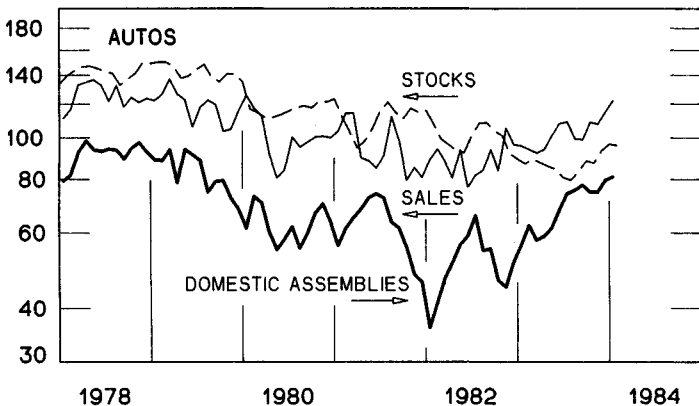


Table 8

INDUSTRIAL PRODUCTION: DIFFUSION INDEXES

Percent of component series higher than in earlier months

	ONE MONTH EARLIER	THREE MONTHS EARLIER	SIX MONTHS EARLIER
1967-83			
AVERAGE	54.2	57.1	59.1
HIGH	75.5	83.8	87.0
LOW	22.6	15.7	14.7
1981			
DECEMBER	32.8	25.7	25.1
1982			
JANUARY	38.7	24.9	21.1
FEBRUARY	64.3	35.5	26.4
MARCH	37.9	45.5	21.9
APRIL	36.2	46.6	23.6
MAY	44.3	34.0	30.2
JUNE	46.4	44.0	39.6
JULY	53.0	48.9	46.2
AUGUST	45.5	53.8	40.4
SEPTEMBER	45.5	44.7	42.8
OCTOBER	35.1	39.6	43.8
NOVEMBER	48.1	39.8	43.8
DECEMBER	46.2	38.7	36.0
1983			
JANUARY	64.9	63.0	46.0
FEBRUARY	45.5	61.7	46.1
MARCH	70.4	67.9	60.9
APRIL	59.4	60.0	68.3
MAY	64.9	74.5	74.3
JUNE	66.0	71.7	77.2
JULY	75.5	79.4	75.1
AUGUST	57.9	76.0	79.1
SEPTEMBER	75.5	83.8	86.6
OCTOBER	56.0	69.8	87.0
NOVEMBER	57.4	67.9	81.7
DECEMBER	57.0	58.1	81.1

NOTE: THE DIFFUSION INDEXES SHOW THE PERCENT OF THE INDUSTRIAL PRODUCTION INDEX'S 235 SEASONALLY ADJUSTED COMPONENT SERIES THAT IN THE MONTH INDICATED WERE HIGHER THAN THEY WERE ONE MONTH EARLIER, THREE MONTHS EARLIER, AND SIX MONTHS EARLIER. IN CALCULATING THE DIFFUSION INDEXES HALF OF THE UNCHANGED COMPONENTS ARE COUNTED AS BEING HIGHER AND NO ALLOWANCE IS MADE FOR THE RELATIVE IMPORTANCE OF THE INDIVIDUAL COMPONENTS IN TOTAL INDUSTRIAL PRODUCTION. DIFFUSION INDEXES BASED ON CHANGES OVER A SIX-MONTH PERIOD GENERALLY SHOW MORE PROMOUNCED CYCLICAL PATTERNS THAN DIFFUSION INDEXES BASED ON CHANGES OVER SHORTER PERIODS.

Explanatory Note

Coverage. The industrial production index is a measure of the physical output of the Nation's factories, mines, and electric and gas utilities expressed as a percentage of production in a base period, currently 1967. The 235 individual series representing Standard Industrial Classification (SIC), 1967 edition, codes 10-14, 19-39, 49, and 91 (part) are calculated first as index series relatives. These relatives are aggregated into: (1) market groupings (such as consumer goods, equipment, intermediate products, and materials) from which the total is derived and (2) industry groupings (for example, SIC 2-digit industries) and major aggregates of these groupings, such as manufacturing, mining, and utilities.

Timing. A first estimate of output for a month is published about the 15th of the following month. This estimate may revise in each of the next 3 months as new data become available. After the fourth month, indexes are not further revised until an annual or a benchmark revision.

Source data. The monthly indexes of industrial production are built up from data of two types: (1) directly-measured physical product data, (2) estimates of physical product output derived from input data adjusted by conversion factors that relate these inputs to physical output. The directly measured physical product data (lbs., tons, etc.) are obtained from reports of the Bureau of the Census, Bureau of Mines, other Government agencies, and trade associations. Estimates of physical output based on input data are used when appropriate monthly physical product data are not available. The major input data are (1) hours worked by production workers as indicated by the monthly establishment survey of the Bureau of Labor Statistics, and (2) industrial electric power use as ascertained from utilities by the Federal Reserve Banks. The input conversion estimates are based mainly on their historical trends and recent developments.

Seasonal adjustment. Individual series are seasonally adjusted by the X-11 version of the Method II seasonal adjustment procedure developed by the Bureau of the Census. The seasonal adjustment factors for the basic aggregate series in the summary table and in Tables 1 and 2 are reviewed and edited monthly. The seasonal factors currently being used were developed from data through 1978, edited to minimize the effect of the sharp cyclical decline and recovery in industrial production in 1974 and 1975.

Weights. The total index and various groupings of component series are combined on the basis of 1967 value-added weights (shown in the first column of the index tables). The gross-value-weighted product series are expressed in terms of 1972 dollars.

Formula. The symbolic expression for the total index (I) is:

$$I_t = \sum \left(\frac{q_{67} p_{67}}{\sum q_{67} p_{67}} \right) \cdot \left(\frac{q_t}{q_{67}} \right) \cdot 100 = \frac{\sum q_t p_{67}}{\sum q_{67} p_{67}} \cdot 100$$

where q is quantity, p is Census value-added per unit of output, and t represents the t -th period.

Reliability. The median of the revisions in total IP, without regard to sign, between the first and fourth estimates is 0.25 per cent; that is, in about half of the cases, the absolute value of the revision from the first to the fourth estimate was less than 0.25 per cent. (Calculated on the basis of data for the August 1971 to July 1976 period.)

Rounding. Changes shown for index components may not aggregate to changes for totals due to independent rounding.