



FEDERAL RESERVE

INDUSTRIAL PRODUCTION

G.12.3

For release at 9:30 a.m. (EDT)
May 16, 1978

Industrial production in April increased by an estimated 1.1 per cent, following a revised 1.3 per cent rise in March. About one-fourth of the April increase was due to further resumption of coal production following the end of the recent strike. Advances in output last month were widespread among most products and materials; particularly large gains occurred in automotive products, business equipment, and durable materials. At 142.5 per cent of the 1967 average, the April index is 2 per cent above the average for the first quarter when output was reduced by severe weather and strikes.

Products. Output of consumer goods rose 0.8 per cent in April. Auto assemblies increased more than 6 per cent to an annual rate of 9.8 million units; production of other consumer goods increased only a little after large gains in the two preceding months. Business equipment output advanced sharply for the third successive month and production of construction supplies increased somewhat further in April.

Materials. Production of materials increased 1.6 per cent, following a sharp rise in March. Output of durable materials rose 1.7 per cent in April, reflecting increases in basic metal materials and parts for equipment and consumer durable goods. However, nondurable materials production increased only slightly further. Output of energy materials surged 3.8 per cent, as coal production returned to about normal, following the strike settlement.

INDUSTRIAL PRODUCTION: SUMMARY (Seasonally Adjusted)

Indexes, 1967=100	1978		Per cent changes						
	Mar.	Apr.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	Apr.
	(p)	(e)	From preceding month						Apr. 77
Total	141.0	142.5	.3	.3	-.6	.3	1.3	1.1	4.7
Products, total	141.5	142.6	.4	.6	-1.3	.8	1.4	.8	5.0
Final Products	138.8	140.0	.4	.4	-2.0	1.1	1.8	.9	4.4
Consumer Goods	146.1	147.3	.2	.4	-2.7	1.3	1.7	.8	3.1
Durable	157.5	161.1	-1.0	.4	-6.0	3.3	4.1	2.3	6.3
Nondurable	141.5	141.8	.8	.4	-1.3	.5	.6	.2	1.7
Business Equipment	157.4	158.9	.6	.3	-.9	1.0	2.1	1.0	8.0
Intermediate Products	151.8	152.6	.4	1.3	.8	-.1	.2	.5	7.2
Construction Supplies	149.3	150.1	1.1	1.2	.6	-.3	.4	.5	9.4
Materials	140.1	142.4	.1	-.1	.3	-.4	1.1	1.6	4.3

p--preliminary e--estimate



FEDERAL RESERVE

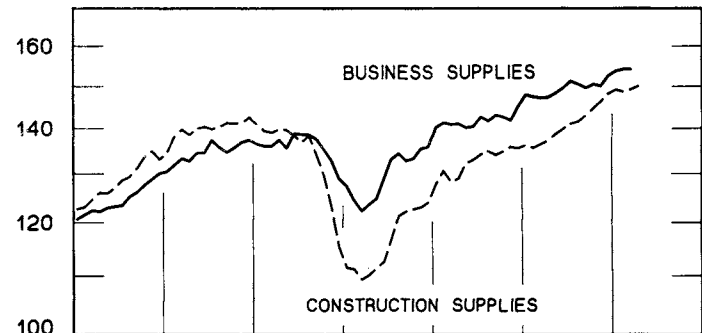
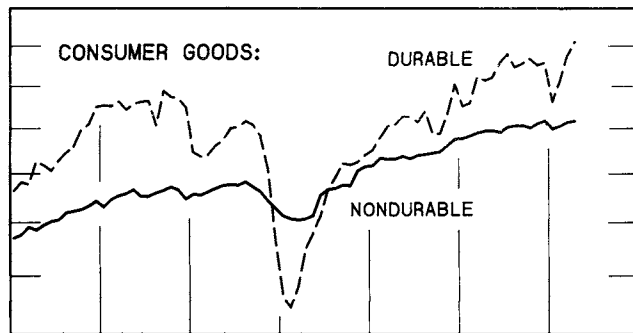
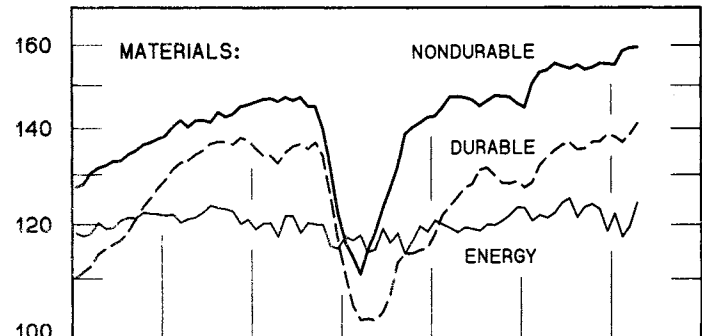
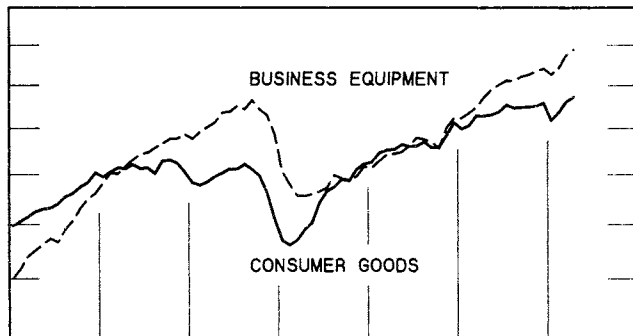
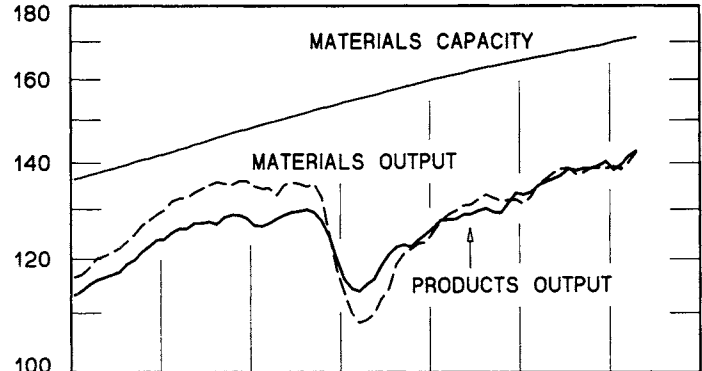
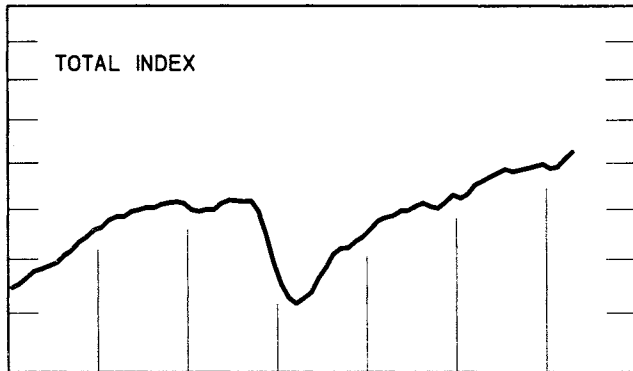
statistical release

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INDUSTRIAL PRODUCTION

APRIL DATA

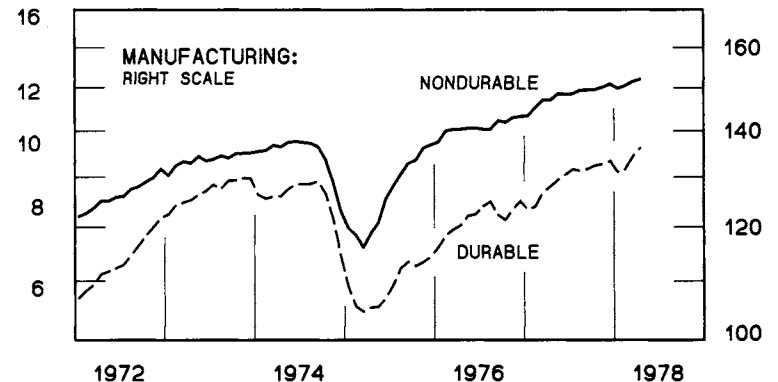
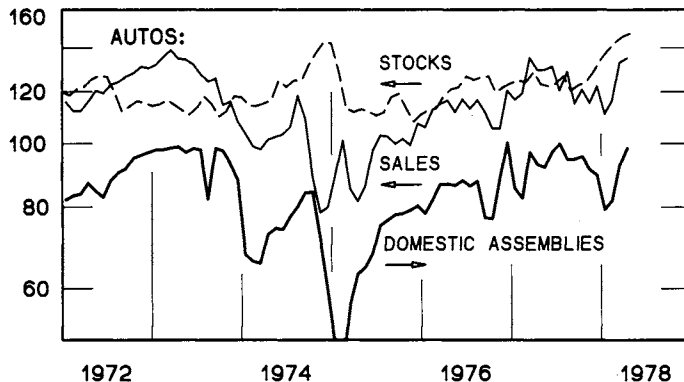
SEASONALLY ADJUSTED, RATIO SCALE, 1967=100



1969-70=100

ANNUAL RATE, MILLIONS OF UNITS

1967=100



AUTOS: SALES AND STOCKS INCLUDE IMPORTS

Table 5.
PRODUCTION BY INDUSTRY GROUPINGS

Not Seasonally Adjusted, 1967 = 100

MAJOR INDUSTRY GROUPINGS	SIC CODE	1967	1977												1978			
		PRO- POR- TION	AVG.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.		
MINING AND UTILITIES																		
MINING		12.05	136.2	132.4	132.6	136.9	140.6	138.8	137.3	134.1	132.9	135.0	142.0	138.7	135.9	138.3		
UTILITIES		6.36	117.8	118.8	120.0	123.0	117.0	115.5	119.4	121.0	120.3	113.7	113.5	113.8	118.9	127.0		
		5.69	156.5	147.7	146.7	152.3	166.9	164.5	157.2	148.7	146.9	158.7	173.9	166.5	154.7	150.5		
MANUFACTURING																		
NONDURABLE		87.95	137.1	136.5	137.8	141.9	133.2	138.2	142.8	144.1	140.3	134.8	133.9	139.5	142.3	143.7		
DURABLE		35.97	148.1	146.3	147.8	152.8	144.1	154.1	156.2	155.8	151.0	143.0	142.8	148.6	150.8	151.4		
		51.98	129.5	129.7	130.8	134.3	125.6	127.2	133.7	136.0	132.9	129.2	127.8	133.2	136.5	138.4		
MINING																		
METAL MINING	10	.51	105.4	124.8	130.4	132.2	99.4	74.1	77.4	82.1	82.1	97.3	109.6	113.3	120.7			
COAL	11,12	.69	118.0	125.4	127.8	133.4	104.8	112.4	137.4	141.3	137.4	67.6	53.3	59.4	82.6	136.6		
OIL AND GAS EXTRACTION	13	4.40	118.0	116.0	116.4	119.6	119.5	118.8	119.7	120.2	120.0	120.6	122.2	121.8	123.8	125.0		
STONE AND EARTH MINERALS	14	.75	124.9	124.7	126.8	127.0	125.4	127.5	129.9	133.6	132.4	126.7	119.9	116.9	122.3			
NONDURABLE MANUFACTURES																		
FOODS	20	8.75	137.9	134.0	134.6	139.8	136.4	144.2	148.1	146.4	141.6	135.3	133.5	135.7	137.0			
TOBACCO PRODUCTS	21	.67	114.3	108.5	105.2	123.6	98.2	125.3	120.1	126.2	120.2	99.4	115.2	125.6				
TEXTILE MILL PRODUCTS	22	2.68	137.1	137.4	139.5	141.3	120.9	142.2	143.7	148.3	141.5	132.0	131.1	138.1	141.5			
APPAREL PRODUCTS	23	3.31	124.2	124.4	121.4	127.8	109.3	131.5	136.3	135.6	120.9	110.1	112.4	125.1				
PAPER AND PRODUCTS	26	3.21	137.4	140.5	142.2	142.5	127.9	140.2	137.4	143.0	138.5	126.3	137.7	148.0	149.8			
PRINTING AND PUBLISHING	27	4.72	124.7	118.1	122.2	128.8	130.5	136.3	136.3	132.6	128.0	121.1	116.4	118.9	120.6	123.9		
CHEMICALS AND PRODUCTS	28	7.74	180.7	181.5	184.3	189.2	183.2	185.7	187.5	185.9	182.9	176.0	174.8	179.1	183.2			
PETROLEUM PRODUCTS	29	1.79	141.0	137.2	139.3	143.1	145.0	145.5	145.0	141.8	143.5	138.5	136.8	134.8	134.8	135.7		
RUBBER & PLASTICS PRODUCTS	30	2.24	232.2	229.2	231.7	239.4	213.9	233.6	242.4	243.1	244.0	234.3	231.5	251.3	252.8			
LEATHER AND PRODUCTS	31	.86	75.3	76.0	75.9	77.1	64.2	76.3	76.0	79.9	77.2	72.5	73.0	75.7	78.2			
DURABLE MANUFACTURES																		
ORONANCE, PVT & GOVT	19,91	3.64	73.9	74.6	74.7	74.9	74.2	73.9	74.3	73.4	73.7	74.2	73.0	72.3	73.8	73.0		
LUMBER AND PRODUCTS	24	1.64	133.4	134.1	134.9	135.9	130.0	136.3	139.8	140.9	131.2	130.0	128.5	136.0	138.4			
FURNITURE AND FIXTURES	25	1.37	140.9	136.8	135.4	141.0	127.4	144.0	148.5	148.2	148.2	146.5	144.9	157.4	154.6			
CLAY, GLASS, STONE PROD	32	2.74	146.1	145.7	147.5	153.6	147.9	154.3	150.3	155.1	153.9	143.6	140.0	144.9	150.2			
PRIMARY METALS	33	6.57	110.2	120.9	124.1	120.4	103.2	104.1	105.0	112.3	106.1	103.8	106.5	111.4	115.2	119.7		
IRON AND STEEL	331,2	4.21	103.4	113.3	118.6	113.2	102.0	101.6	99.4	105.8	98.0	96.5	99.0	100.9	105.0			
FABRICATED METAL PROD	34	5.93	130.9	127.9	128.7	132.0	126.8	131.7	135.2	137.0	137.2	134.6	132.9	139.2	140.2	139.8		
NONELECTRICAL MACHINERY	35	9.15	144.8	142.0	141.6	147.7	144.1	145.2	153.3	151.7	150.2	146.2	144.6	151.6	151.3	152.2		
ELECTRICAL MACHINERY	36	8.05	141.9	138.6	140.9	145.0	136.1	141.7	148.8	150.3	148.3	144.6	142.0	146.8	149.9	149.6		
TRANSPORTATION EQUIP	37	9.27	121.1	123.8	125.3	130.8	115.4	107.4	123.9	130.1	123.1	117.7	116.2	122.0	131.8	137.6		
MOTOR VEHICLES & PTS	371	4.50	159.7	164.9	167.3	177.4	148.5	132.0	161.8	179.2	164.0	151.1	148.7	160.4	174.5	185.7		
AEROSPACE & MISC	372-9	4.77	84.7	85.1	85.6	86.9	84.2	84.2	88.2	83.9	84.6	86.2	85.6	85.8	91.6	92.2		
INSTRUMENTS	38	2.11	159.1	154.8	156.5	161.2	158.0	159.6	165.0	165.0	165.4	164.5	158.5	161.4	164.0	164.1		
MISCELLANEOUS MFRS	39	1.51	149.1	144.3	145.5	150.6	146.0	154.0	161.6	158.7	154.2	146.4	142.3	149.8	150.9	152.4		
UTILITIES																		
ELECTRIC		3.88	175.5	160.1	161.5	172.8	194.7	191.4	180.8	167.6	162.1	176.4	195.8					

Table 9.

Table 8.
INDUSTRIAL PRODUCTION: QUARTERLY INDEXES

SUMMARY GROUPINGS	1976						1977						1978					
	IV	I	II	III	IV	I	IV	I	II	III	IV	I	IV	I	II	III	IV	I
TOTAL INDEX	131.6	133.6	137.0	138.4	139.3	139.7	559.3	570.8	582.1	590.3	592.5	591.2	432.7	442.2	451.1	457.2	457.9	454.1
PRODUCTS, TOTAL	131.3	133.9	136.5	138.6	139.6	139.9	307.3	312.6	317.1	320.2	320.0	317.1	432.7	442.2	451.1	457.2	457.9	454.1
FINAL PRODUCTS	129.2	131.9	134.7	136.6	137.0	136.7							307.3	312.6	317.1	320.2	320.0	317.1
CONSUMER GOODS	138.5	141.1	143.3	145.0	145.3	143.9												
DURABLE CONSUMER GOODS	144.4	148.0	153.2	156.1	155.9	151.8							88.7	90.9	94.7	97.0	95.9	92.3
AUTOMOTIVE PRODUCTS	162.7	168.1	175.5	179.7	175.1	165.5							46.4	48.1	50.5	51.6	49.9	46.8
HOME GOODS	134.0	136.7	140.6	142.9	145.3	144.1							42.4	42.8	44.1	45.4	46.0	45.5
NONDURABLE CONSUMER GOODS	136.2	138.4	139.3	140.5	141.0	140.7							218.6	221.7	222.4	223.3	223.9	224.7
CLOTHING	123.5	123.7	125.2	126.3	127.1								32.0	31.8	32.6	32.3	32.9	
CONSUMER STAPLES	139.7	142.4	143.3	144.5	144.9	146.0							186.6	189.9	190.0	191.0	191.1	193.2
CONSUMER ENERGY	147.9	155.6	151.2	150.8	149.6	150.8							43.2	45.4	44.4	44.1	43.6	44.3
(HOME GOODS AND CLOTHING)	129.2	130.7	133.5	135.2	136.9	133.8							74.4	74.6	76.7	77.7	78.8	77.0
EQUIPMENT	116.3	119.2	123.1	125.1	125.7	126.8							125.4	129.6	134.0	136.9	137.9	137.0
BUSINESS EQUIPMENT	139.4	143.5	148.7	151.5	153.4	154.7							92.8	96.7	100.5	103.0	104.8	103.6
INDUSTRIAL EQUIPMENT	131.0	133.0	138.2	140.8	142.5	145.3							42.9	43.3	44.9	45.8	46.4	47.4
COMMERCIAL, TRANSIT, FARM EQ.	149.1	155.7	160.9	163.7	166.0	165.8							49.9	53.4	55.6	57.3	58.5	56.2
DEFENSE AND SPACE EQUIPMENT	77.6	78.3	80.1	80.7	79.2	79.8							32.6	32.9	33.6	33.9	33.1	33.4
INTERMEDIATE PRODUCTS	139.4	141.9	143.5	146.3	148.9	151.6							126.5	128.6	131.1	133.1	134.6	137.1
CONSTRUCTION SUPPLIES	135.4	136.1	138.6	142.0	146.6	149.1							58.5	58.8	60.5	62.1	63.2	64.2
BUSINESS SUPPLIES	143.3	147.6	148.5	150.5	151.1	154.1							68.0	69.8	70.6	71.1	71.5	73.0
COMMERCIAL ENERGY PRODUCTS	158.1	164.5	164.9	165.3	163.2	165.0							17.2	18.0	18.1	18.2	17.8	18.2
MATERIALS	131.9	133.1	137.7	138.1	138.9	139.3												
DURABLE GOODS MATERIALS	128.4	129.2	135.1	136.0	137.7	138.0												
BASIC METAL MATERIALS	107.4	108.6	116.4	109.4	109.4	110.7												
NONDURABLE GOODS MATERIALS	146.9	149.5	154.6	154.4	155.0	157.6												
TEXTILE, PAPER AND CHEMICAL MAT	151.4	153.9	159.9	159.2	159.5	162.5												
TEXTILE MATERIALS	112.1	111.3	110.9	112.3	117.9	115.5												
PAPER MATERIALS	130.2	131.7	134.3	135.1	132.3	137.1												
CHEMICAL MATERIALS	177.3	181.6	191.8	189.5	188.9	193.7												
ENERGY MATERIALS	122.0	122.0	122.6	123.4	121.9	119.9												
MANUFACTURING	131.2	133.1	136.9	138.7	139.9	139.8												
DURABLE	123.3	124.7	129.3	131.5	132.8	132.3												
NONDURABLE	142.7	145.2	148.0	149.2	150.2	150.6												
MINING AND UTILITIES	133.9	136.9	137.2	136.3	135.1	137.6												
MINING	115.6	116.6	120.5	117.7	117.3	117.0												
UTILITIES	154.4	159.6	155.8	157.1	155.0	160.6												

GROSS VALUES IN BILLIONS OF 1972
DOLLARS, ANNUAL RATES, BY QUARTERTable 10.
GROSS VALUES IN BILLIONS OF 1972 DOLLARS, ANNUAL RATES, BY MONTH

MAJOR MARKET GROUPINGS	1972		1977												1978			
	DOLLARS	AVG.	JAN.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.			
PRODUCTS, TOTAL	507.4	583.9	578.3	582.2	585.9	590.5	590.2	590.1	591.3	591.3	594.7	582.0	590.4	601.2	605.9			
FINAL PRODUCTS	390.9	452.1	448.5	451.0	453.7	457.8	456.9	456.8	457.8	457.3	458.7	445.1	453.7	463.4	467.6			
CONSUMER GOODS	277.5	317.5	316.1	316.3	318.9	321.5	320.0	319.1	319.5	320.0	320.4	311.2	318.1	321.9	325.4			
DURABLE CONSUMER GOODS	82.0	94.6	93.6	94.0	96.4	98.7	96.2	96.0	97.1	95.5	95.2	88.5	91.6	96.8	99.6			
AUTOMOTIVE PRODUCTS	41.1	50.0	50.2	49.6	51.7	53.4	50.7	50.6	51.5	49.4	48.8	44.1	46.0	50.3	53.3			
HOME GOODS	40.9	44.6	43.4	44.3	44.6	45.3	45.4	45.5	45.5	46.1	46.4	44.4	45.6	46.4	46.4			
NONDURABLE CONSUMER GDS	195.5	222.8	222.3	222.5	222.5	222.7	224.1	223.1	222.4	224.4	225.0	222.7	226.3	225.1	225.8			
CLOTHING	28.5	32.4	32.0	33.1	32.6	31.6	32.5	32.9	33.3	32.3	33.0	30.8	31.8					
CONSUMER STAPLES	167.0	190.5	190.4	189.6	190.0	191.0	191.5	190.3	189.2	192.1	192.0	192.0	194.6	193.1	193.3			
CONSUMER ENERGY PROD.	39.2	44.4	44.9	44.3	44.1	45.1	43.7	43.6	43.5	44.0	43.3	44.2	44.5	44.2				
(HOME GOODS & CLOTHING)	69.4	77.0	75.4	77.4	77.3	76.9	77.9	78.3	78.9	78.4	79.3	75.1	77.4	78.3	79.0			
EQUIPMENT	113.4	134.6	132.6	134.6	134.9	136.2	137.0	137.6	138.1	137.3	138.2	133.9	135.8	141.4	142.0			
BUSINESS EQUIPMENT	80.6	101.3	99.2	101.1	101.2	102.5	103.1	103.6	105.1	104.1	105.3	100.5	102.9	107.5	107.9			
INDUSTRIAL EQUIPMENT	34.4	45.1	44.1	45.2	45.5	45.8	45.6	46.0	46.0	46.4	46.7	46.8	47.3	48.1	48.2			
COM'L, TRANSIT, FARM EQ.	46.2	56.2	55.1	55.8	55.8	56.7	57.4	57.6	59.1	57.8	58.5	53.7	55.6	59.3	59.7			
DEFENSE & SPACE EQUIP.	32.7	33.4	33.5	33.6	33.7	33.8	33.9	34.0	33.0	33.2	33.0	33.4	33.0	33.8	34.1			
INTERMEDIATE PRODUCTS	116.6	131.9	130.1	131.4	131.8	132.8	133.1	133.5	133.8	134.1	135.9	136.7	136.9	137.8	138.8			
CONSTRUCTION SUPPLIES	57.8	61.1	60.1	60.4	61.0	61.7	62.2	62.3	62.8	62.8	63.8	64.1	63.9	64.4	65.3			
BUSINESS SUPPLIES	58.8	70.7	70.0	70.9	70.8	71.1	70.9	71.2	71.0	71.3	72.1	72.5	73.0	73.5				
COMMERCIAL ENERGY PROD.	15.6	18.0	18.0	18.3	18.0	18.5	18.1	17.9	17.6	17.6	18.0	18.0	18.2	18.4				

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 3 are reviewed and edited monthly. The seasonal factors currently being used were developed from data only through 1974 in order to diminish the effect of the subsequent sharp recession and recovery on the seasonal factors.

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.