FEDERAL RESERVE statistical release

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INDUSTRIAL PRODUCTION AND CAPACITY UTILIZATION

This release includes preliminary estimates for industrial production (IP) and capacity utilization for both October and November as well as revised estimates for May through September. IP rose 0.2 percent in November after ticking down 0.1 percent in October. On average, IP rose 0.1 percent per month across October

(over)

Industrial Production and Capacity Utilization: Summary
Seasonally adjusted

	2017=100							Percent change							
Industrial production	2025 May[r]	June[r]	July[r]	Aug.[r]	Sept.[r]	Oct.[p]	Nov.[p]	2025 May[r]	June[r]	July[r]	Aug.[r]	Sept.[r]	Oct.[p]	Nov.[p]	Nov. '24 to Nov. '25
Total index	101.0	101.5	101.9	101.6	101.7	101.6	101.8	-.2	.5	.4	-.3	.1	-.1	.2	2.5
Previous estimates	101.0	101.4	101.6	101.3	101.4			-.1	.4	.2	-.3	.1			
Major market groups															
Final Products	97.3	97.6	98.2	97.7	97.7	97.6	98.0	.0	.3	.6	-.5	-.1	.0	.4	3.2
Consumer goods	98.0	98.4	98.8	98.4	98.0	97.9	98.2	-.3	.4	.5	-.5	-.4	-.1	.3	.8
Business equipment	93.1	93.2	94.0	93.8	94.6	94.3	94.6	1.1	.1	.9	-.3	.9	-.3	.3	11.2
Nonindustrial supplies	97.7	97.8	97.6	97.8	98.0	97.7	97.4	-.2	.1	-.2	.2	.2	-.3	-.3	1.2
Construction	99.2	99.5	98.9	99.9	100.7	99.6	99.1	-.3	.3	-.6	1.0	.8	-1.1	-.6	2.3
Materials	105.5	106.4	106.8	106.6	106.7	106.7	107.0	-.3	.8	.4	-.2	.1	.0	.2	2.4
Major industry groups															
Manufacturing*	96.5	96.9	97.2	97.3	97.3	96.9	97.0	-.1	.3	.4	.0	.0	-.4	.0	1.9
Previous estimates	96.6	96.8	97.0	97.0	97.0			-.1	.3	.2	.1	.0			
Mining	120.5	121.4	121.6	122.5	121.7	120.8	122.8	.4	.7	.2	.7	-.7	-.8	1.7	3.9
Utilities	107.8	109.3	109.8	106.5	107.7	110.5	110.0	-1.0	1.5	.5	-3.0	1.1	2.6	-.4	4.8

	Percent of capacity														Capacity growth
Capacity utilization	Avg. 1972-2024	1988-89 high	1990-91 low	1994-95 high	2009 low	2024 Oct.	2024 Nov.	2025 May[r]	June[r]	July[r]	Aug.[r]	Sept.[r]	Oct.[p]	Nov.[p]	Nov. '24 to Nov. '25
Total industry	79.5	85.2	78.8	85.0	66.5	75.4	75.2	75.9	76.2	76.4	76.1	76.0	75.9	76.0	1.5
Previous estimates								75.9	76.1	76.2	75.9	75.9			
Manufacturing*	78.2	85.5	77.2	84.6	63.4	74.6	74.7	75.5	75.6	75.9	75.8	75.8	75.4	75.4	1.1
Previous estimates								75.5	75.6	75.6	75.6	75.5			
Mining	85.2	86.3	84.4	88.6	78.3	83.4	82.7	84.4	85.1	85.3	85.9	85.4	84.8	86.3	-.3
Utilities	84.3	93.2	84.7	93.2	78.1	72.3	70.6	71.0	71.7	71.8	69.4	69.9	71.4	70.9	4.4
Stage-of-process groups															
Crude	84.6	87.9	84.9	90.0	76.5	82.4	82.2	82.7	83.4	83.7	84.2	83.8	83.0	83.7	-.3
Primary and semifinished	80.2	86.4	77.9	87.7	63.5	75.8	75.2	75.7	76.0	75.9	75.3	75.4	75.6	75.4	1.8
Finished	76.7	83.3	77.4	80.7	66.3	72.0	72.3	73.5	73.7	74.1	73.9	73.9	73.6	73.7	1.6

r Revised. p Preliminary.
Note. The statistics in this release cover output, capacity, and capacity utilization in the U.S. industrial sector, which is defined by the Federal Reserve to comprise manufacturing, mining, and electric and gas utilities. Mining is defined as all industries in sector 21 of the North American Industry Classification System (NAICS); electric and gas utilities are those in NAICS sectors 2211 and 2212. Manufacturing comprises NAICS manufacturing industries (sector 31-33) plus the logging industry and the newspaper, periodical, book, and directory publishing industries (except exclusive Internet publishing). Logging and publishing are classified elsewhere in NAICS (under agriculture and information respectively), but historically they were considered to be manufacturing and were included in the industrial sector under the Standard Industrial Classification (SIC) system. In December 2002, the Federal Reserve reclassified all of its industrial output data from the SIC system to NAICS.

and November, the same as the rate of increase in September and a somewhat slower average pace than the past 12 months. Manufacturing output was flat in November after dropping 0.4 percent in October. There were swings in both mining and utilities output over October and November, though, on net, both sectors posted gains. At 101.8 percent of its 2017 average, total IP in November was 2.5 percent above its year-earlier level. Capacity utilization was 76.0 percent in November, a rate that is 3.5 percentage points below its long-run (1972–2024) average.

Market Groups

The output of consumer goods rose 0.3 percent in November after edging down 0.1 percent in October. In both October and November, the production of consumer durables decreased, with large negative contributions from the index for automotive products, while the production of consumer nondurables increased. The output of business equipment fell 0.3 percent in October and then rose 0.3 percent in November; within business equipment, the index for information processing equipment increased in both months, while the indexes for transit equipment and for industrial and other equipment posted mixed results across the months. The output of construction supplies fell 1.6 percent across October and November, on net, though it has risen 2.3 percent over the past 12 months. The output of business supplies was flat over the two-month period, while the index for materials was unchanged in October and increased 0.2 percent in November.

Industry Groups

Manufacturing output declined, on net, in October and November, with overall declines in the output of both durables and nondurables. The index for durables dropped 0.5 percent in October and then ticked down 0.1 percent in November. On net, during October and November output declined in most industry groups within durables, including a drop in motor vehicles and parts of 5.1 percent in October and 1 percent in November. Notable exceptions include the index for aerospace and miscellaneous transportation equipment, which rose 3.2 percent across the two months, and the index for computer and electronic products, which gained 2.3 percent on net. The index for nondurables decreased 0.2 percent in October but ticked up 0.1 percent in November with mixed results among industry groups within nondurables. Among the largest nondurable goods industry groups by weight, in October and November, on net, the index for food, beverages, and tobacco products rose 1.5 percent, while the index for chemicals declined 1.5 percent. In November, the index for manufacturing as a whole was 1.9 percent above its year-earlier level.

Mining output fell 0.8 percent in October and then rose 1.7 percent in November. The output of utilities increased 2.6 percent in October but then decreased 0.4 percent in November, with similar patterns in both electric and natural gas utilities.

Capacity utilization for manufacturing was 75.4 percent in November—unchanged from October—and 0.4 percentage point below its September level. The manufacturing operating rate in November was 2.8 percentage points below its long-run (1972–2024) average. The operating rate for mining rose 0.9 percentage point, on net, in October and November, to 86.3 percent, and the operating rate for utilities moved up 1.0 percentage point, on net, to 70.9 percent. In November, the rate for mining was 1.1 percentage points above its long-run average, while the rate for utilities remained substantially below its long-run average.

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Further detail is available on the Board's website (**www.federalreserve.gov/releases/G17/**).

Source Data Availability and Revision Timing

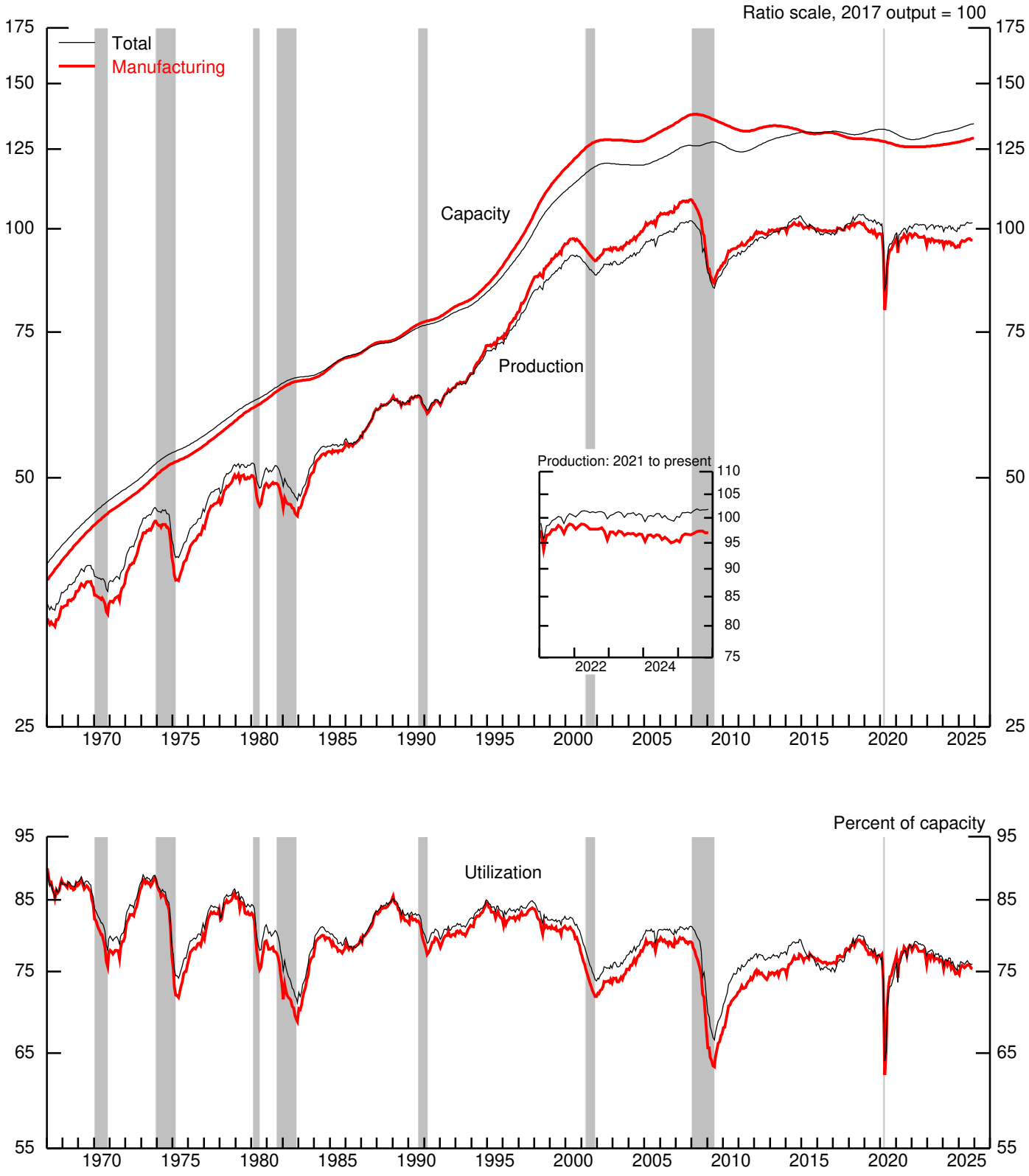
The joint and delayed release of estimates of October and November industrial production and capacity utilization (IP/CU) and the earlier delayed release of IP/CU for September led to unusual patterns of data availability and revision timing for recent months. A detailed explanation of these considerations is available on the Board's website at https://www.federalreserve.gov/releases/g17/g17_technical_qa.htm#reliability202512.

Revision of Industrial Production and Capacity Utilization

The Federal Reserve Board issued its annual revision to the indexes of industrial production (IP) and the related measures of capacity utilization on November 24, 2025. Data referred to in the release dated September 16, 2025, were superseded by the data issued at the time of the annual revision. New annual benchmark data from the 2022 Economic Census were incorporated as well as other annual data, including information on the mining of metallic and nonmetallic minerals (except fuels). Industry-group indexes were converted to the 2022 North American Industry Classification System (NAICS). The weights for market-group splits of the industry-level indexes were updated with information from the 2017 benchmark input-output accounts from the U.S. Bureau of Economic Analysis. The updated IP indexes included revisions to the monthly indicator—either product data or input data—and to seasonal factors for each industry. In addition, the estimation methods for some series were changed. Any modifications to the methods for estimating the output of an industry affected the index from 1972 to the present.

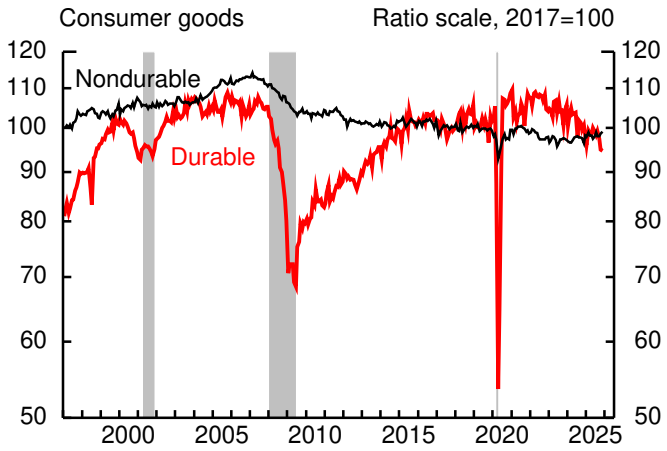
Capacity and capacity utilization were revised to incorporate data for manufacturing through the fourth quarter of 2024 from the U.S. Census Bureau's Quarterly Survey of Plant Capacity Utilization, along with new data on capacity from the U.S. Geological Survey, the U.S. Department of Energy, and other organizations.

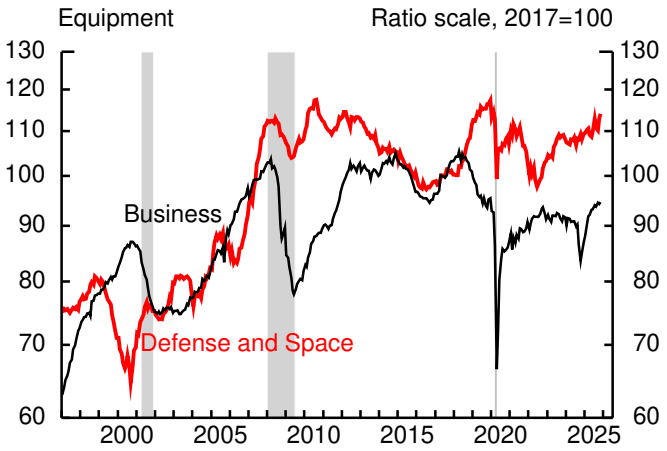
1. Industrial production, capacity, and utilization

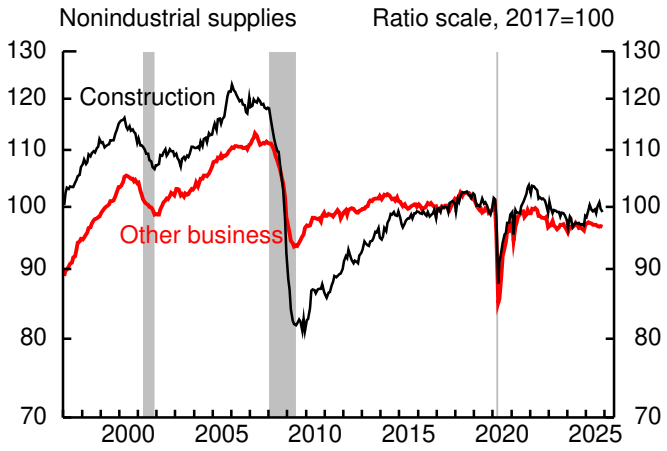


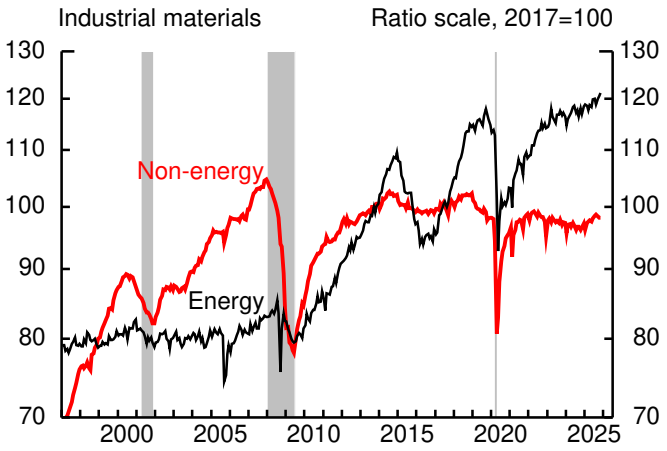
Note: The shaded areas are periods of business recession as defined by the National Bureau of Economic Research (NBER).

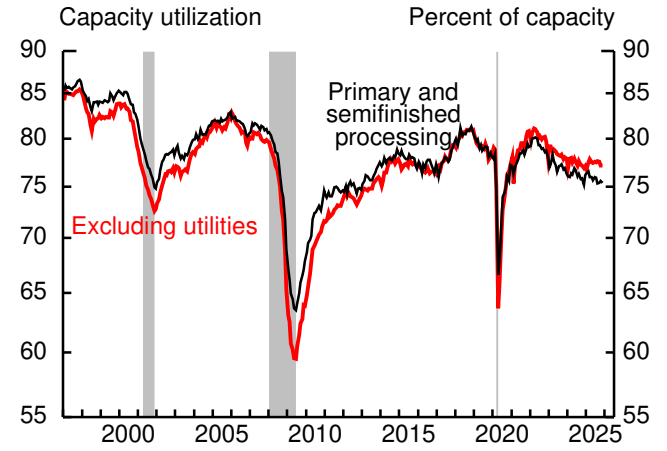
2. Industrial production and capacity utilization

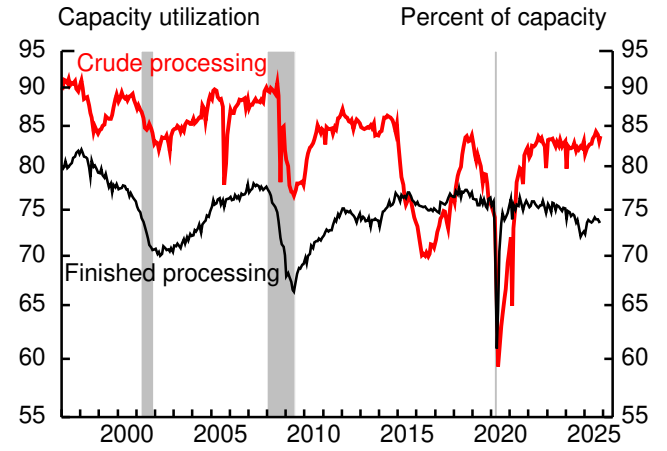






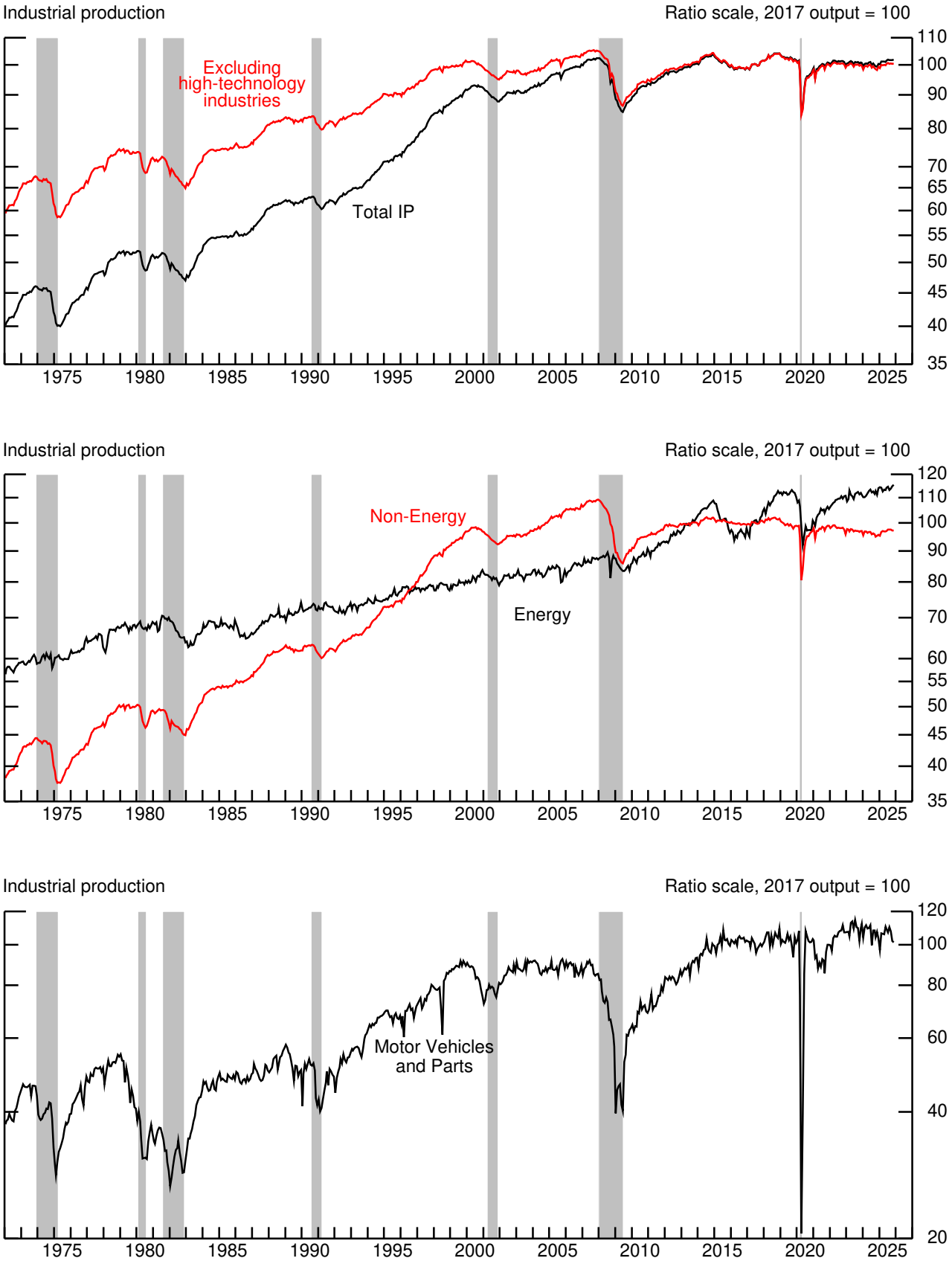






Note: The shaded areas are periods of business recession as defined by the National Bureau of Economic Research (NBER).

3. Industrial production of selected industries



Notes: High-technology industries are defined as semiconductors and related electronic components (NAICS 3344), computers (NAICS 3341), and communications equipment (NAICS 3342).
The shaded areas represent periods of business recession as defined by the NBER.

Table 1
Industrial Production: Market and Industry Group Summary

Percent change, seasonally adjusted

Item	2024 proportion[1]	Fourth quarter to fourth quarter			Annual rate			Monthly rate							Nov. '24 to Nov. '25
		2022	2023	2024	2025 Q1	Q2[r]	Q3[r]	2025 May[r]	June[r]	July[r]	Aug.[r]	Sept.[r]	Oct.[p]	Nov.[p]	
Total IP	100.00	.1	.0	-.9	4.2	1.8	2.1	-.2	.5	.4	-.3	.1	-.1	.2	2.5
Market Groups															
Final products and nonindustrial supplies	56.18	-.8	-.8	-1.7	6.3	1.3	1.4	-.1	.3	.4	-.3	.0	-.1	.1	2.6
Consumer goods	27.97	-1.4	-.7	-.8	1.9	-.6	.8	-.3	.4	.5	-.5	-.4	-.1	.3	.8
Durable	6.16	-1.5	-2.1	-3.9	-5.5	5.0	-3.4	1.4	-.8	-.7	.9	-1.8	-2.6	-.2	-5.9
Automotive products	3.55	3.5	-2.4	-4.1	-9.8	11.1	-5.1	2.2	-1.3	-1.5	2.3	-3.3	-4.4	-.6	-9.2
Home electronics	.14	1.8	7.8	2.1	4.0	.8	3.6	1.7	-.9	1.5	-.8	-.1	.7	-.1	3.8
Appliances, furniture, carpeting	.81	-8.3	-4.5	-4.4	-3.2	-1.1	-.3	2.1	-.7	1.0	-1.9	.1	-.5	-1.0	-4.1
Miscellaneous goods	1.66	-8.1	-1.1	-3.7	2.2	-3.9	-1.9	-.7	.1	.0	-.6	.4	-.2	.9	-.5
Nondurable	21.80	-1.4	-.3	.0	4.0	-2.0	1.9	-.7	.7	.8	-.8	.0	.5	.5	2.7
Non-energy	16.67	-2.4	.4	-.2	1.2	.5	3.2	-1.0	.7	.8	-.3	.2	-.1	.6	1.8
Foods and tobacco	10.21	-1.4	-.7	-1.7	-.5	2.0	2.5	-.7	.6	.5	-.2	.2	.1	1.3	2.8
Clothing	.18	.4	-5.9	-12.3	8.9	-13.2	-5.7	1.6	-1.9	-1.1	.6	-.2	-1.4	2.2	-1.5
Chemical products	4.90	-3.6	4.9	4.9	5.6	.5	6.8	-1.9	1.3	1.6	-.5	.3	-.3	-.9	1.8
Paper products	1.00	-7.0	-8.0	-3.5	-.6	-8.7	-4.1	-.7	-.3	-.3	.1	-1.1	-.7	.2	-4.3
Energy	5.13	1.2	-2.0	.7	13.1	-9.8	-2.3	.2	.9	.7	-2.7	-.4	2.7	.1	5.5
Business equipment	8.87	3.0	-1.0	-6.8	25.3	12.4	5.8	1.1	.1	.9	-.3	.9	-.3	.3	11.2
Transit	2.06	16.9	8.9	-18.4	136.8	55.5	18.9	5.6	.6	1.6	1.0	-.3	-2.0	.8	45.0
Information processing	1.94	2.9	-3.6	2.8	7.1	-2.8	7.4	-.3	.2	1.1	.7	.7	1.0	.8	5.6
Industrial and other	4.86	-1.5	-3.9	-5.5	2.6	2.0	-1.1	-.4	-.1	.4	-1.4	1.6	.1	-.2	1.0
Defense and space equipment	1.64	-2.3	5.9	.2	4.5	-3.1	7.5	-.4	1.2	2.7	-2.0	-.4	2.4	1.1	5.6
Construction supplies	6.03	-2.9	-1.7	-1.0	7.8	.1	2.0	-.3	.3	-.6	1.0	.8	-1.1	-.6	2.3
Business supplies	11.17	-1.4	-1.0	-.2	3.7	-1.0	-1.1	-.2	.0	.0	-.2	-.1	.1	-.2	.6
Materials	43.82	1.2	.9	.0	1.7	2.6	2.9	-.3	.8	.4	-.2	.1	.0	.2	2.4
Non-energy	26.85	-1.5	.2	-.6	1.6	2.9	3.3	-.2	.5	.5	.2	-.3	-.2	.0	1.6
Durable	16.62	1.2	-.4	-1.8	3.9	5.2	2.9	.2	.3	.4	.3	-.3	-.5	.0	2.6
Consumer parts	2.87	7.8	2.8	-4.6	-3.2	7.0	3.5	2.5	-.6	.5	.0	-.2	-2.6	-1.1	-3.2
Equipment parts	5.22	2.1	-1.1	1.7	12.1	3.5	7.5	.1	.4	1.4	-.2	.5	.9	.5	8.1
Other	8.53	-1.3	-1.0	-3.0	1.3	5.6	-.1	-.5	.5	-.4	.7	-.9	-.7	.0	1.1
Nondurable	10.23	-5.7	1.3	1.4	-2.0	-.7	4.1	-.9	.9	.8	.0	-.3	.1	.0	.1
Textile	.27	-15.1	-4.5	1.5	3.8	-2.7	-7.0	.5	-1.8	-2.2	2.7	-.9	-1.1	1.5	-.6
Paper	1.17	-9.4	-3.5	1.3	-2.9	-7.9	.4	-1.1	2.0	-.6	-.2	-.4	-.4	-1.0	-4.3
Chemical	5.32	-8.2	4.9	2.7	-2.4	.9	9.0	-.9	1.8	1.3	.1	-.4	-.4	-.2	.5
Energy	16.97	5.0	2.0	.9	1.9	2.1	2.3	-.4	1.3	.2	-1.0	.9	.5	.6	3.7
Industry Groups															
Manufacturing	75.45	-1.7	-.3	-1.5	3.9	2.5	2.4	-.1	.3	.4	.0	.0	-.4	.0	1.9
Manufacturing (NAICS) **31–33**	73.83	-1.7	-.1	-1.4	3.9	2.9	2.6	-.1	.3	.4	.0	.0	-.4	.0	2.1
Durable manufacturing	38.42	1.2	-1.3	-2.8	7.5	4.7	3.0	.5	.0	.6	.0	.0	-.5	-.1	3.2
Wood products 321	1.67	-2.6	-2.5	2.4	1.1	2.2	-2.4	1.3	-1.4	.5	.6	-3.0	-1.0	-1.0	-3.9
Nonmetallic mineral products 327	2.32	-.1	-2.5	-3.7	10.9	-7.3	-.1	-1.4	-1.2	.5	.9	.3	-.9	-.3	-.2
Primary metals 331	2.44	-.4	-.8	-2.8	5.0	3.9	8.1	-1.4	3.0	.2	.2	.3	-.4	-.3	4.7
Fabricated metal products 332	6.15	-.4	-3.0	-3.2	.8	6.1	1.7	-.9	.1	.2	.0	1.2	.3	-.3	3.7
Machinery 333	5.39	-1.5	-4.7	-3.6	5.4	3.8	1.8	.1	1.0	.2	-1.2	.7	-.2	-.1	1.7
Computer and electronic products 334	4.77	3.7	-1.2	3.8	13.2	1.6	9.0	.2	-.1	2.2	.0	-.1	1.5	.8	8.6
Electrical equip., appliances, and components 335	2.24	-3.4	2.0	-.5	4.4	-9.5	-3.0	1.9	-3.2	.8	-1.1	2.2	-.7	.8	-.6
Motor vehicles and parts 3361–3	5.94	9.9	-.5	-2.8	-6.2	21.4	-.7	4.3	-1.5	-1.8	3.0	-2.2	-5.1	-1.0	-5.6
Aerospace and miscellaneous transportation equipment 3364–9	3.94	5.6	4.9	-8.7	59.5	9.9	13.1	-.2	1.9	2.9	-1.6	.4	2.0	1.1	25.2
Furniture and related products 337	1.07	-2.3	-9.9	-4.4	-4.1	3.4	1.2	.4	.9	.8	-2.4	1.2	.4	-2.0	-2.3
Miscellaneous 339	2.49	-5.8	1.8	-7.6	-3.1	-7.3	-2.7	-1.1	-.5	1.1	-1.4	-.4	-.1	-.1	-4.3
Nondurable manufacturing	35.41	-4.6	1.3	.2	.2	.9	2.1	-.7	.7	.2	.0	.1	-.2	.1	.9
Food, beverage, and tobacco products 311,2	12.46	-.6	-.8	-1.4	-.8	1.6	1.8	-.7	.3	.5	-.2	.2	.3	1.2	2.6
Textile and product mills 313,4	.51	-14.3	-3.2	-.4	2.9	2.5	-3.9	.9	.3	-2.9	2.1	.2	-2.4	.3	-1.5
Apparel and leather 315,6	.20	.4	-5.1	-11.5	8.5	-12.4	-5.2	1.8	-1.5	-1.4	.8	-.2	-1.3	2.3	-.8
Paper 322	2.23	-9.3	-2.9	.1	-3.7	-5.2	.8	-.3	1.6	-.2	-.7	-.4	.2	-.6	-3.5
Printing and support 323	1.36	-2.7	-11.3	2.5	1.4	-4.1	-6.9	-.6	.2	-1.4	.0	-.9	.9	-1.6	-3.1
Petroleum and coal products 324	3.27	-6.0	4.6	1.4	-3.9	.5	-1.6	1.0	1.4	-1.5	-.3	.2	-.1	.4	.6
Chemicals 325	11.69	-6.7	4.2	3.7	2.2	1.2	7.4	-1.4	1.3	1.2	.1	.3	-.8	-.7	1.2
Plastics and rubber products 326	3.69	-6.1	4.8	-5.6	1.9	4.1	-4.8	-.7	-.4	-1.2	1.1	-.8	-.6	-.2	-1.0
Other manufacturing (non-NAICS) **1133,5131pt.**	1.62	-1.9	-10.2	-5.6	2.1	-12.9	-4.4	-1.8	-.7	-.3	.8	-1.0	-.6	.5	-4.1
Mining **21**	12.51	6.0	2.4	-.6	-.4	6.0	4.4	.4	.7	.2	.7	-.7	-.8	1.7	3.9
Utilities **2211,2**	12.04	4.1	-.9	1.9	11.6	-6.1	-2.3	-1.0	1.5	.5	-3.0	1.1	2.6	-.4	4.8
Electric 2211	10.57	2.7	.2	2.3	8.3	-5.0	-2.7	-1.4	1.5	.7	-3.4	1.3	2.6	-.4	3.6
Natural gas 2212	1.47	13.1	-7.4	-1.0	39.2	-13.0	.5	2.2	1.4	-1.2	-.3	-.4	2.6	-.4	14.3

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1. The proportion data are the relative weights for the rates of change for each series in the computation of the change in total industrial production in the following year.

Note. Under the industry groups, the figures to the right of the series descriptions are 2017 North American Industry Classification System (NAICS) codes. The abbreviation pt denotes part of a NAICS code. Additional industry detail is available on the Board's website (www.federalreserve.gov/releases/G17/20251223/default_sup.htm). Under market groups, in the products category, miscellaneous consumer nondurables, oil and gas well drilling, and manufactured homes are not shown separately; in the nondurable materials category, containers and miscellaneous nondurable materials are not shown separately.

Table 2
Industrial Production: Special Aggregates and Selected Detail

Percent change, seasonally adjusted

Item		2024 proportion	Fourth quarter to fourth quarter			Annual rate			Monthly rate							Nov. '24 to Nov. '25
			2022	2023	2024	2025 Q1	Q2[r]	Q3[r]	2025 May[r]	June[r]	July[r]	Aug.[r]	Sept.[r]	Oct.[p]	Nov.[p]	
Total industry		100.00	.1	.0	-.9	4.2	1.8	2.1	-.2	.5	.4	-.3	.1	-.1	.2	2.5
Energy		25.57	4.5	1.1	1.0	4.2	-.5	.7	-.2	1.0	.3	-1.3	.5	1.0	.5	3.9
Consumer products		5.13	1.2	-2.0	.7	13.1	-9.8	-2.3	.2	.9	.7	-2.7	-.4	2.7	.1	5.5
Commercial products		3.05	5.0	2.0	3.1	4.0	3.2	-1.0	.2	.1	.5	-1.2	.0	.7	.6	3.4
Oil and gas well drilling	213111	.43	20.3	-5.3	-5.8	-6.3	-10.6	-10.0	-2.0	-1.1	-1.9	.8	.3	2.7	1.3	-2.0
Converted fuel		5.14	2.3	2.0	2.4	3.4	-5.6	1.5	-.5	1.9	.2	-3.2	3.7	1.4	-.1	3.7
Primary energy		11.83	6.0	2.1	.2	1.3	5.6	2.6	-.3	1.0	.2	.1	-.3	.1	.9	3.7
Non-energy		74.43	-1.6	-.4	-1.6	4.3	2.7	2.5	-.1	.3	.4	.1	-.1	-.4	.1	2.1
Selected high-technology industries		2.07	10.2	4.2	8.0	23.7	5.9	8.0	.8	-.9	3.3	-1.0	-1.0	1.9	1.1	11.8
Computers and peripheral equipment	3341	.19	-2.7	6.8	12.5	15.6	7.5	30.9	2.9	.5	4.0	1.2	2.3	.3	1.4	18.9
Communications equipment	3342	.47	23.0	3.6	5.6	10.8	-9.6	-19.3	-1.7	-2.0	-2.3	-1.4	-.5	.5	.5	-4.8
Semiconductors and related electronic components	3344	1.40	8.2	4.0	8.2	29.5	11.1	14.6	1.3	-.7	4.9	-1.2	-1.6	2.5	1.2	16.5
Excluding selected high-technology industries		72.37	-1.9	-.5	-1.9	3.7	2.5	2.4	-.2	.4	.3	.1	-.1	-.5	.0	1.8
Motor vehicles and parts	**3361–3**	5.94	9.9	-.5	-2.8	-6.2	21.4	-.7	4.3	-1.5	-1.8	3.0	-2.2	-5.1	-1.0	-5.6
Motor vehicles	3361	3.01	17.0	-.7	-2.9	-11.3	35.5	.5	7.1	-2.7	-2.0	4.6	-3.9	-7.9	.0	-7.7
Motor vehicle parts	3363	2.38	9.9	.0	-.5	-4.6	12.8	-1.1	3.3	-1.0	-1.6	1.6	-.3	-2.7	-.9	-3.0
Excluding motor vehicles and parts		66.43	-2.8	-.5	-1.8	4.6	1.0	2.7	-.6	.5	.5	-.1	.1	-.1	.1	2.4
Consumer goods		19.80	-3.2	.0	-.8	1.3	.1	2.4	-.9	.6	.7	-.4	.1	-.1	.6	1.4
Business equipment		7.27	.5	-2.0	-8.8	28.4	8.3	5.4	.2	.5	1.2	-1.1	1.4	.7	.2	12.5
Construction supplies		6.02	-2.9	-1.7	-1.0	7.8	.1	2.1	-.3	.3	-.6	1.0	.8	-1.1	-.6	2.3
Business supplies		7.69	-4.1	-2.4	-2.0	2.4	-3.2	-1.9	-.4	-.1	-.4	.2	-.1	-.2	-.6	-1.3
Materials		23.96	-3.1	.1	-.9	1.0	1.5	3.4	-.6	.8	.5	.2	-.2	-.1	.0	1.5
Measures excluding selected high-technology industries																
Total industry		97.93	-.1	-.1	-1.1	3.8	1.7	2.0	-.2	.5	.3	-.3	.1	-.1	.2	2.3
Manufacturing[1]		73.38	-2.0	-.4	-1.7	3.3	2.4	2.3	-.1	.4	.3	.1	.1	-.4	.0	1.6
Durable		36.48	.7	-1.6	-3.5	6.5	4.6	2.6	.4	.0	.4	.0	.1	-.6	-.1	2.6
Measures excluding motor vehicles and parts																
Total industry		94.06	-.4	.0	-.8	4.9	.7	2.3	-.4	.6	.5	-.5	.2	.3	.2	3.0
Manufacturing[1]		69.51	-2.5	-.3	-1.3	4.8	1.1	2.7	-.5	.5	.6	-.2	.2	.0	.1	2.6
Durable		32.60	-.2	-1.5	-2.9	10.1	1.9	3.6	-.2	.3	1.0	-.6	.4	.3	.1	4.7
Measures excluding selected high-technology industries and motor vehicles and parts																
Total industry		92.00	-.7	-.1	-1.0	4.5	.6	2.1	-.5	.7	.5	-.5	.2	.2	.2	2.8
Manufacturing[1]		67.44	-2.9	-.4	-1.6	4.2	.9	2.5	-.5	.5	.5	-.2	.3	.0	.1	2.3
Stage-of-process components of non-energy materials, measures of the input to																
Finished processors		9.54	1.5	-.3	-.3	5.3	2.9	5.1	.6	.3	.8	.0	.2	-.3	-.1	3.0
Primary and semifinished processors		17.31	-3.1	.6	-.8	-.4	2.9	2.4	-.7	.7	.4	.3	-.6	-.2	.0	.9

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1. The composition of manufacturing is specified in a note for the summary table.

Table 3
Motor Vehicle Assemblies

Millions of units, seasonally adjusted annual rate

Item	2024 average	2024 Q4	2025 Q1	Q2	Q3	2025 May	June	July	Aug.	Sept.	Oct.	Nov.
Total	10.52	10.27	9.97	10.73	10.65	11.04	10.71	10.32	10.99	10.62	9.79	9.67
Autos	1.43	1.34	1.28	1.38	1.30	1.34	1.39	1.33	1.35	1.23	1.25	1.18
Trucks	9.10	8.93	8.69	9.35	9.35	9.70	9.32	9.00	9.65	9.39	8.54	8.50
Light	8.76	8.63	8.41	9.08	9.11	9.43	9.05	8.75	9.42	9.17	8.34	8.29
Medium and heavy	.33	.30	.28	.27	.23	.27	.27	.25	.23	.22	.20	.21
Memo												
Autos and light trucks	10.19	9.97	9.69	10.46	10.41	10.77	10.44	10.07	10.76	10.40	9.59	9.46

Note. Seasonal factors and underlying data for auto, light truck, and medium and heavy truck production are available on the Board's website, www.federalreserve.gov/releases/G17/mvsf.htm

Table 4
Industrial Production Indexes: Market and Industry Group Summary

2017 = 100, seasonally adjusted

Item		2024 proportion	2025 Feb.	Mar.	Apr.	May[r]	June[r]	July[r]	Aug.[r]	Sept.[r]	Oct.[p]	Nov.[p]
Total IP		100.00	101.1	101.0	101.1	101.0	101.5	101.9	101.6	101.7	101.6	101.8
Market Groups												
Final products and nonindustrial supplies		56.18	97.6	97.6	97.5	97.4	97.7	98.0	97.8	97.8	97.7	97.8
Consumer goods		27.97	99.1	98.4	98.3	98.0	98.4	98.8	98.4	98.0	97.9	98.2
Durable		6.16	99.4	98.8	98.6	100.0	99.1	98.4	99.3	97.5	94.9	94.7
Automotive products		3.55	103.9	102.9	102.9	105.1	103.7	102.1	104.5	101.0	96.6	96.0
Home electronics		.14	180.7	179.0	179.3	182.3	180.7	183.4	181.9	181.7	183.0	182.8
Appliances, furniture, carpeting		.81	81.8	80.3	81.3	83.0	82.4	83.2	81.6	81.7	81.3	80.5
Miscellaneous goods		1.66	94.9	95.5	94.5	93.7	93.9	93.8	93.2	93.6	93.4	94.2
Nondurable		21.80	98.9	98.3	98.1	97.4	98.1	98.9	98.1	98.1	98.6	99.1
Non-energy		16.67	97.4	97.9	97.8	96.8	97.4	98.2	98.0	98.1	98.0	98.6
Foods and tobacco		10.21	97.0	97.2	97.4	96.7	97.3	97.8	97.6	97.8	97.9	99.2
Clothing		.18	78.8	79.5	76.1	77.3	75.9	75.1	75.5	75.4	74.3	75.9
Chemical products		4.90	107.6	108.8	108.6	106.6	107.9	109.7	109.2	109.5	109.2	108.3
Paper products		1.00	70.0	70.6	68.6	68.1	67.9	67.7	67.8	67.1	66.6	66.7
Energy		5.13	103.1	98.5	98.5	98.7	99.6	100.2	97.6	97.2	99.8	100.0
Business equipment		8.87	90.4	91.9	92.1	93.1	93.2	94.0	93.8	94.6	94.3	94.6
Transit		2.06	80.1	83.2	84.6	89.3	89.9	91.3	92.2	91.9	90.1	90.8
Information processing		1.94	115.1	116.9	115.0	114.7	114.8	116.1	116.9	117.8	118.9	119.8
Industrial and other		4.86	88.0	88.6	88.8	88.4	88.3	88.6	87.4	88.7	88.8	88.7
Defense and space equipment		1.64	110.2	110.6	109.1	108.7	109.9	112.9	110.6	110.2	112.9	114.1
Construction supplies		6.03	99.4	100.3	99.4	99.2	99.5	98.9	99.9	100.7	99.6	99.1
Business supplies		11.17	97.4	97.3	97.2	97.0	97.0	97.0	96.8	96.7	96.8	96.6
Materials		43.82	105.5	105.4	105.8	105.5	106.4	106.8	106.6	106.7	106.7	107.0
Non-energy		26.85	97.3	97.5	97.7	97.4	98.0	98.5	98.7	98.3	98.1	98.1
Durable		16.62	96.9	97.3	97.6	97.8	98.1	98.5	98.8	98.4	98.0	97.9
Consumer parts		2.87	92.5	92.2	91.5	93.8	93.3	93.7	93.7	93.6	91.2	90.2
Equipment parts		5.22	107.2	107.6	107.8	107.9	108.3	109.9	109.7	110.3	111.3	111.8
Other		8.53	93.0	93.6	94.3	93.8	94.3	94.0	94.7	93.8	93.1	93.1
Nondurable		10.23	98.0	97.9	97.8	96.9	97.8	98.6	98.6	98.3	98.4	98.5
Textile		.27	71.3	71.1	70.7	71.0	69.8	68.2	70.1	69.4	68.6	69.6
Paper		1.17	81.9	81.1	80.2	79.3	80.9	80.4	80.3	80.0	79.6	78.8
Chemical		5.32	100.8	101.4	100.6	99.7	101.5	102.9	103.0	102.6	102.2	102.0
Energy		16.97	118.5	117.7	118.8	118.3	119.8	120.1	118.9	120.0	120.5	121.2
Industry Groups												
Manufacturing		75.45	96.4	96.8	96.7	96.5	96.9	97.2	97.3	97.3	96.9	97.0
Manufacturing (NAICS)	**31–33**	73.83	97.0	97.4	97.3	97.2	97.6	98.0	98.0	98.0	97.7	97.7
Durable manufacturing		38.42	97.7	98.2	98.1	98.6	98.6	99.2	99.2	99.2	98.7	98.6
Wood products	321	1.67	99.8	99.1	99.2	100.6	99.1	99.6	100.2	97.3	96.3	95.4
Nonmetallic mineral products	327	2.32	98.0	99.1	97.4	96.1	95.0	95.4	96.3	96.6	95.7	95.4
Primary metals	331	2.44	96.3	97.4	97.9	96.5	99.3	99.6	99.8	100.1	99.6	99.4
Fabricated metal products	332	6.15	92.3	92.6	94.2	93.4	93.5	93.7	93.7	94.9	95.2	94.9
Machinery	333	5.39	89.7	90.6	90.5	90.7	91.6	91.8	90.8	91.4	91.2	91.1
Computer and electronic products	334	4.77	124.3	125.4	124.9	125.2	125.0	127.8	127.8	127.7	129.6	130.6
Electrical equip., appliances, and components	335	2.24	98.9	98.3	96.0	97.8	94.7	95.5	94.4	96.5	95.8	96.5
Motor vehicles and parts	3361–3	5.94	106.5	106.2	105.9	110.5	108.8	106.9	110.1	107.6	102.1	101.1
Aerospace and miscellaneous transportation equipment	3364–9	3.94	88.8	90.1	90.5	90.3	92.0	94.7	93.1	93.5	95.4	96.5
Furniture and related products	337	1.07	76.0	75.4	76.4	76.7	77.4	78.0	76.1	77.0	77.3	75.8
Miscellaneous	339	2.49	88.9	89.1	88.1	87.1	86.7	87.7	86.4	86.0	86.0	85.8
Nondurable manufacturing		35.41	96.3	96.6	96.5	95.9	96.6	96.8	96.8	96.9	96.7	96.8
Food, beverage, and tobacco products	311,2	12.46	98.9	99.1	99.4	98.7	99.0	99.5	99.3	99.6	99.9	101.1
Textile and product mills	313,4	.51	75.5	74.7	74.9	75.6	75.8	73.6	75.2	75.3	73.5	73.7
Apparel and leather	315,6	.20	80.0	80.7	77.2	78.6	77.4	76.3	76.9	76.8	75.8	77.6
Paper	322	2.23	82.3	81.6	81.1	80.9	82.1	82.0	81.5	81.1	81.3	80.8
Printing and support	323	1.36	78.3	77.4	77.5	77.0	77.1	76.1	76.0	75.4	76.1	74.8
Petroleum and coal products	324	3.27	90.0	89.4	89.0	89.9	91.2	89.8	89.5	89.7	89.6	90.0
Chemicals	325	11.69	102.4	103.3	103.0	101.6	102.9	104.2	104.3	104.6	103.8	103.1
Plastics and rubber products	326	3.69	93.7	95.4	95.4	94.7	94.3	93.2	94.2	93.5	92.9	92.7
Other manufacturing (non-NAICS)	**1133,5131pt.**	1.62	75.2	75.0	72.9	71.6	71.1	70.9	71.5	70.8	70.4	70.7
Mining	**21**	12.51	119.2	120.3	120.0	120.5	121.4	121.6	122.5	121.7	120.8	122.8
Utilities	**2211,2**	12.04	111.4	107.0	108.8	107.8	109.3	109.8	106.5	107.7	110.5	110.0
Electric	2211	10.57	110.0	106.8	108.6	107.1	108.6	109.4	105.7	107.0	109.8	109.4
Natural gas	2212	1.47	120.5	107.5	109.3	111.7	113.2	111.9	111.6	111.1	114.0	113.6

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Note. Refer to the notes for table 1.

Table 5
Industrial Production Indexes: Special Aggregates

2017 = 100, seasonally adjusted

Item		2024 proportion	2025 Feb.	Mar.	Apr.	May[r]	June[r]	July[r]	Aug.[r]	Sept.[r]	Oct.[p]	Nov.[p]
Total industry		100.00	101.1	101.0	101.1	101.0	101.5	101.9	101.6	101.7	101.6	101.8
Energy		25.57	114.3	112.4	113.4	113.1	114.3	114.6	113.1	113.7	114.8	115.4
Consumer products		5.13	103.1	98.5	98.5	98.7	99.6	100.2	97.6	97.2	99.8	100.0
Commercial products		3.05	113.3	111.7	113.6	113.9	114.0	114.5	113.1	113.0	113.9	114.6
Oil and gas well drilling	213111	.43	103.3	103.5	102.3	100.2	99.1	97.3	98.1	98.4	101.0	102.3
Converted fuel		5.14	113.8	108.5	110.8	110.3	112.4	112.7	109.1	113.1	114.6	114.5
Primary energy		11.83	119.8	121.0	121.5	121.1	122.3	122.5	122.6	122.2	122.3	123.3
Non-energy		74.43	96.5	97.0	96.8	96.7	97.0	97.4	97.5	97.5	97.1	97.1
Selected high-technology industries		2.07	171.3	171.3	172.8	174.2	172.6	178.3	176.6	174.9	178.1	180.0
Computers and peripheral equipment	3341	.19	160.0	160.0	159.1	163.7	164.5	171.1	173.1	177.1	177.6	180.1
Communications equipment	3342	.47	218.4	220.0	216.7	213.0	208.7	203.9	201.1	200.1	201.1	202.1
Semiconductors and related electronic components	3344	1.40	159.7	159.2	162.2	164.4	163.2	171.2	169.1	166.5	170.6	172.6
Excluding selected high-technology industries		72.37	94.8	95.3	95.1	95.0	95.3	95.6	95.7	95.7	95.2	95.3
Motor vehicles and parts	**3361–3**	5.94	106.5	106.2	105.9	110.5	108.8	106.9	110.1	107.6	102.1	101.1
Motor vehicles	3361	3.01	116.9	115.6	116.1	124.4	121.0	118.7	124.1	119.3	109.8	109.8
Motor vehicle parts	3363	2.38	100.9	100.7	100.1	103.4	102.3	100.7	102.3	102.0	99.2	98.4
Excluding motor vehicles and parts		66.43	93.9	94.4	94.3	93.7	94.2	94.7	94.6	94.8	94.7	94.8
Consumer goods		19.80	96.5	96.9	96.8	95.9	96.4	97.2	96.8	96.9	96.8	97.3
Business equipment		7.27	82.9	84.3	84.6	84.7	85.2	86.2	85.2	86.4	87.0	87.2
Construction supplies		6.02	99.2	100.1	99.2	98.9	99.3	98.7	99.7	100.5	99.4	98.9
Business supplies		7.69	89.7	90.1	89.3	88.9	88.8	88.5	88.7	88.6	88.4	87.8
Materials		23.96	94.6	94.8	95.0	94.4	95.1	95.6	95.7	95.5	95.4	95.4
Measures excluding selected high-technology industries												
Total industry		97.93	99.9	99.8	99.9	99.7	100.2	100.6	100.3	100.4	100.3	100.5
Manufacturing[1]		73.38	94.7	95.1	95.0	94.8	95.2	95.5	95.5	95.6	95.2	95.2
Durable		36.48	94.3	94.7	94.7	95.1	95.1	95.5	95.6	95.6	95.0	94.9
Measures excluding motor vehicles and parts												
Total industry		94.06	100.8	100.8	100.9	100.5	101.1	101.6	101.2	101.4	101.6	101.9
Manufacturing[1]		69.51	95.6	96.1	96.0	95.5	96.0	96.5	96.3	96.5	96.6	96.7
Durable		32.60	96.2	96.8	96.8	96.6	96.8	97.8	97.3	97.7	98.0	98.1
Measures excluding selected high-technology industries and motor vehicles and parts												
Total industry		92.00	99.5	99.5	99.6	99.1	99.8	100.2	99.8	100.0	100.2	100.5
Manufacturing[1]		67.44	93.8	94.3	94.1	93.6	94.1	94.6	94.4	94.7	94.6	94.7
Stage-of-process components of non-energy materials, measures of the input to												
Finished processors		9.54	97.5	97.5	97.3	97.9	98.1	98.9	98.9	99.1	98.8	98.6
Primary and semifinished processors		17.31	97.3	97.6	98.0	97.3	98.0	98.3	98.7	98.0	97.8	97.9

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1. The composition of manufacturing is specified in a note for the summary table.

Table 6
Diffusion Indexes of Industrial Production

Percent

Item	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
One month earlier												
2023	66.1	48.8	40.7	55.6	49.5	39.0	55.3	47.8	52.2	48.8	50.5	45.4
2024	35.9	61.4	60.7	46.1	61.4	47.5	45.4	56.3	47.5	47.1	46.8	57.6
2025	48.5	62.7	53.9	44.1	53.2	53.9	54.6	48.8	50.8	48.8		
Three months earlier												
2023	42.4	46.1	50.5	47.1	50.8	49.8	47.5	45.4	51.9	45.4	49.8	46.1
2024	36.3	47.8	53.2	58.3	58.0	49.5	48.5	50.2	41.7	48.8	41.0	52.2
2025	52.5	59.0	58.6	52.9	49.5	57.6	58.0	51.2	50.5	47.5		
Six months earlier												
2023	41.4	44.4	39.0	43.7	49.2	53.6	47.5	46.1	51.2	45.8	40.7	47.1
2024	35.6	41.4	48.8	48.1	52.2	48.1	53.6	49.5	44.7	48.5	39.0	46.4
2025	47.5	50.2	54.9	54.2	61.4	55.3	58.0	54.2	51.2	49.2		

Note. The diffusion indexes are calculated as the percentage of series that increased over the indicated span (one, three, or six months) plus one-half the percentage that were unchanged.

Table 7
CAPACITY UTILIZATION
Percent of capacity, seasonally adjusted

Item		2024 proportion	1972-2024 ave.	1994-95 high	2009 low	2025 Q1	Q2[r]	Q3[r]	2025 May[r]	June[r]	July[r]	Aug.[r]	Sept.[r]	Oct.[p]	Nov.[p]
Total industry		100.00	79.5	85.0	66.5	76.0	76.1	76.2	75.9	76.2	76.4	76.1	76.0	75.9	76.0
Manufacturing[1]		75.71	78.2	84.6	63.4	75.3	75.6	75.8	75.5	75.6	75.9	75.8	75.8	75.4	75.4
Manufacturing (NAICS)	**31–33**	74.21	78.2	84.7	63.5	75.2	75.5	75.7	75.4	75.6	75.8	75.7	75.7	75.3	75.3
Durable manufacturing		39.65	76.8	83.7	58.5	73.0	73.7	74.0	73.8	73.7	74.1	74.0	74.0	73.5	73.4
Wood products	321	1.77	76.8	86.6	47.8	72.6	72.7	72.0	73.4	72.2	72.5	72.8	70.6	69.8	69.0
Nonmetallic mineral products	327	2.29	73.9	82.4	43.8	80.3	79.2	79.6	79.1	78.3	78.9	79.7	80.1	79.5	79.4
Primary metals	331	2.75	77.3	94.5	49.4	65.8	66.3	67.5	65.3	67.2	67.3	67.5	67.6	67.3	67.1
Fabricated metal products	332	6.14	78.6	82.8	65.1	74.3	75.4	75.7	75.2	75.3	75.4	75.4	76.3	76.6	76.3
Machinery	333	5.23	78.2	88.7	59.5	78.0	78.8	79.1	78.5	79.3	79.5	78.6	79.2	79.0	78.9
Computer and electronic products	334	4.96	77.1	84.4	70.0	75.2	74.3	74.6	74.4	73.9	75.1	74.6	74.1	74.8	74.9
Electrical equip., appliances, and components	335	1.95	81.6	92.5	65.7	86.6	84.2	83.1	85.6	82.8	83.3	82.2	83.9	83.1	83.7
Motor vehicles and parts	3361–3	6.54	74.5	87.7	33.0	65.0	68.1	68.2	69.4	68.4	67.3	69.4	67.9	64.5	63.9
Aerospace and miscellaneous transportation equipment	3364–9	4.52	73.5	71.7	72.3	68.2	69.6	71.4	69.1	70.3	72.2	70.9	71.1	72.5	73.1
Furniture and related products	337	1.15	77.6	82.7	52.7	68.4	69.2	69.6	69.1	69.8	70.4	68.7	69.6	69.9	68.6
Miscellaneous	339	2.35	77.2	81.0	68.3	77.9	76.4	75.8	76.3	75.9	76.7	75.6	75.2	75.1	75.0
Nondurable manufacturing		34.56	80.0	86.1	68.9	77.7	77.6	77.7	77.2	77.7	77.8	77.7	77.6	77.4	77.4
Food, beverage, and tobacco products	311,2	11.69	80.2	85.3	74.9	79.3	79.3	79.2	79.0	79.1	79.4	79.1	79.1	79.2	80.0
Textile and product mills	313,4	.56	77.4	92.0	54.0	71.2	71.9	71.4	72.1	72.3	70.3	71.8	72.0	70.4	70.6
Apparel and leather	315,6	.22	75.8	87.2	61.9	68.8	67.2	66.9	68.0	67.1	66.4	67.1	67.2	66.5	68.3
Paper	322	2.08	86.6	92.7	72.7	80.2	79.3	79.6	78.8	80.1	80.0	79.5	79.2	79.4	79.0
Printing and support	323	1.41	78.9	85.4	57.1	72.7	72.0	70.9	71.8	72.0	71.0	71.1	70.5	71.1	70.0
Petroleum and coal products	324	2.92	85.4	91.1	76.3	89.8	89.6	88.8	89.5	90.6	89.1	88.6	88.6	88.4	88.6
Chemicals	325	11.93	76.9	82.1	65.5	75.2	74.9	75.8	74.3	75.1	75.9	75.7	75.8	75.1	74.4
Plastics and rubber products	326	3.75	81.8	93.1	57.6	73.3	74.2	73.4	74.1	73.9	73.1	73.9	73.3	72.9	72.8
Other manufacturing (non-NAICS)	**1133,5131pt.**	1.50	80.0	84.0	61.3	81.4	79.7	79.8	79.4	79.2	79.3	80.3	79.8	79.7	80.4
Mining	**21**	11.81	85.2	88.6	78.3	83.2	84.5	85.5	84.4	85.1	85.3	85.9	85.4	84.8	86.3
Utilities	**2211,2**	12.48	84.3	93.2	78.1	73.5	71.5	70.4	71.0	71.7	71.8	69.4	69.9	71.4	70.9
Selected high-technology industries		2.15	77.4	86.2	71.4	76.1	74.3	72.7	74.7	73.1	74.4	72.7	71.0	71.4	71.1
Computers and peripheral equipment	3341	.22	76.5	86.8	82.9	75.3	77.0	82.2	77.6	78.0	81.0	81.9	83.7	83.9	85.0
Communications equipment	3342	.52	75.5	86.2	77.7	68.3	64.1	58.4	64.1	62.0	59.8	58.2	57.2	56.8	56.3
Semiconductors and related electronic components	3344	1.40	79.1	93.0	62.9	78.9	77.5	76.4	78.0	76.2	78.7	76.5	74.1	74.7	74.4
Measures excluding selected high-technology industries															
Total industry		97.85	79.6	84.9	66.2	76.0	76.1	76.2	75.9	76.2	76.4	76.2	76.2	76.0	76.1
Manufacturing[1]		73.57	78.3	84.5	62.9	75.3	75.6	75.9	75.5	75.7	75.9	75.9	75.9	75.5	75.5
STAGE-OF-PROCESS GROUPS															
Crude		15.44	84.6	90.0	76.5	82.0	82.9	83.9	82.7	83.4	83.7	84.2	83.8	83.0	83.7
Primary and semifinished		46.28	80.2	87.7	63.5	76.3	75.9	75.5	75.7	76.0	75.9	75.3	75.4	75.6	75.4
Finished		38.29	76.7	80.7	66.3	73.2	73.6	74.0	73.5	73.7	74.1	73.9	73.9	73.6	73.7

r Revised. p Preliminary.
1. The composition of manufacturing is specified in a note for the summary table.

Table 8
INDUSTRIAL CAPACITY
Percent change

Item	Average annual rate				Fourth quarter to fourth quarter				Annual rate				Monthly rate	
	1972-79	1980-88	1989-94	1995-2025	2022	2023	2024	2025	2025 Q1	Q2	Q3	Q4	2025 Oct.	Nov.
Total industry	3.1	1.9	2.3	1.5	.6	1.3	1.0	1.5	1.4	1.5	1.5	1.5	.1	.1
Manufacturing[1]	3.3	2.2	2.5	1.3	.1	.4	.7	1.1	1.0	1.1	1.1	1.2	.1	.1
Mining	.7	.1	-.7	1.2	2.9	1.7	.9	-.3	.2	-.3	-.6	-.6	.0	.0
Utilities	4.4	2.2	1.8	1.8	1.9	3.0	3.2	4.4	4.3	4.5	4.5	4.4	.4	.4
Selected high-technology industries	18.6	16.7	15.9	15.9	7.7	15.2	10.7	16.5	14.1	16.4	17.8	17.9	1.4	1.4
Manufacturing[1] ex. selected high-technology industries	2.6	1.2	1.6	.3	-.1	.1	.4	.7	.6	.6	.7	.7	.1	.1
STAGE-OF-PROCESS GROUPS														
Crude	1.5	.5	-.5	1.0	2.0	1.4	.5	-.3	.2	-.2	-.5	-.6	-.1	-.1
Primary and semifinished	3.0	1.4	2.5	1.6	.5	1.2	1.0	1.8	1.6	1.8	1.9	1.9	.2	.2
Finished	3.9	3.2	2.7	1.4	.3	.4	1.2	1.6	1.5	1.5	1.6	1.6	.1	.1

1. The composition of manufacturing is specified in a note for the summary table.

Table 9
GROSS VALUE OF FINAL PRODUCTS AND NONINDUSTRIAL SUPPLIES
Billions of 2017 dollars at annual rate, seasonally adjusted

Item	2017	2024	2025 Q1	Q2[r]	Q3[r]	2025 May[r]	June[r]	July[r]	Aug.[r]	Sept.[r]	Oct.[p]	Nov.[p]
Final products and nonindustrial supplies	4,045.4	3,955.2	3,970.7	3,994.8	4,003.4	3,998.9	4,001.2	4,006.3	4,002.9	4,001.1	3,988.2	3,996.8
Final products	2,969.9	2,898.2	2,899.8	2,922.1	2,932.9	2,927.3	2,927.6	2,938.3	2,933.3	2,927.1	2,916.3	2,928.7
Consumer goods	2,186.4	2,162.1	2,153.0	2,152.9	2,152.1	2,154.6	2,154.5	2,157.8	2,154.3	2,144.1	2,137.1	2,144.9
Durable	530.8	552.3	527.5	538.5	532.8	544.5	537.8	531.7	540.0	526.7	507.7	505.1
Automotive products	375.7	406.0	382.5	394.9	389.6	400.8	394.3	387.5	397.7	383.7	364.4	361.4
Other durable goods	155.2	147.8	145.8	144.8	144.3	145.2	144.7	145.2	143.8	144.0	143.6	143.8
Nondurable	1,655.6	1,610.8	1,624.5	1,614.5	1,618.8	1,610.5	1,616.6	1,625.4	1,614.3	1,616.6	1,627.2	1,637.3
Equipment, total	783.5	739.6	750.6	773.7	785.7	777.4	777.7	785.3	783.9	788.0	784.1	788.8
Business and defense	760.3	716.1	727.5	751.1	763.6	754.7	755.5	762.9	761.8	765.9	761.8	766.2
Business	651.7	598.5	607.4	631.4	641.8	635.5	635.1	639.7	640.8	645.0	638.4	641.5
Defense and space	108.6	117.4	120.0	118.8	120.8	118.1	119.5	122.6	120.1	119.8	122.8	124.2
Nonindustrial supplies	1,075.5	1,057.2	1,070.6	1,072.7	1,070.7	1,071.7	1,073.6	1,068.3	1,069.8	1,073.9	1,071.8	1,068.3
Construction supplies	325.3	318.6	326.3	326.5	327.4	325.7	327.2	324.4	327.5	330.4	326.5	323.9
Business supplies	750.2	739.1	744.2	746.1	743.0	746.1	746.3	744.1	742.0	742.9	745.2	744.5
Commercial energy products	242.8	267.6	271.1	275.3	274.0	275.7	276.2	276.1	272.2	273.7	275.5	278.0

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Table 10
GROSS-VALUE-WEIGHTED INDUSTRIAL PRODUCTION: STAGE-OF-PROCESS GROUPS
Percent change, seasonally adjusted

Item	2024 gross value[1]	Fourth quarter to fourth quarter			Annual rate			Monthly rate						Nov. '24 to Nov. '25
		2022	2023	2024	2025 Q1	Q2[r]	Q3[r]	2025 June[r]	July[r]	Aug.[r]	Sept.[r]	Oct.[r]	Nov.[p]	
Finished	2,448.1	1.8	-.2	-3.0	5.6	5.3	2.4	-.2	.5	.0	.1	-.7	.4	2.8
Semifinished	1,952.6	-.3	-.7	.6	6.4	1.0	-1.0	.0	.0	-.3	-.3	.3	-.3	1.8
Primary	1,442.1	-1.4	.2	.1	-.8	.3	3.5	1.8	-.1	-.8	1.0	.3	.4	2.8
Crude	730.4	-1.4	2.7	.6	-3.6	2.8	5.8	.8	.8	.5	-.7	-1.1	.3	.4

r Revised. p Preliminary.
1. Billions of 2017 dollars.

Table 11
HISTORICAL STATISTICS FOR INDUSTRIAL PRODUCTION, CAPACITY, AND UTILIZATION: Total Industry
Seasonally adjusted

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Q1	Q2	Q3	Q4	Annual
IP (*percent change*)[1]																	
2003	.9	.1	-.3	-.6	.0	.1	.5	-.2	.6	.1	.7	.0	2.7	-2.8	2.7	3.8	1.4
2004	.2	.6	-.4	.4	.7	-.8	.7	.1	.1	.9	.2	.8	2.7	2.1	2.2	5.7	2.6
2005	.4	.7	-.1	.2	.1	.4	-.3	.3	-1.9	1.2	1.1	.5	5.8	2.3	-1.7	3.8	3.4
2006	.2	.0	.2	.3	.0	.3	-.1	.4	-.2	-.1	.0	1.0	4.0	2.4	1.6	.9	2.3
2007	-.3	.9	.2	.7	.1	.1	-.1	.2	.2	-.3	.5	.0	4.1	4.8	.6	1.2	2.6
2008	-.1	-.4	-.3	-.6	-.6	-.2	-.4	-1.6	-4.4	1.0	-1.3	-2.8	-1.2	-5.7	-12.2	-16.1	-3.4
2009	-2.5	-.6	-1.6	-.8	-1.0	-.4	1.1	1.1	.9	.3	.4	.4	-20.8	-10.9	6.4	6.8	-11.4
2010	1.1	.4	.7	.3	1.4	.2	.4	.4	.3	-.3	.1	1.0	8.2	7.8	5.3	1.7	5.6
2011	-.2	-.4	1.0	-.3	.1	.3	.5	.7	-.1	.7	.0	.5	2.2	1.7	4.7	4.2	3.2
2012	.6	.3	-.5	.7	.2	.0	.2	-.4	-.1	.3	.4	.2	4.0	2.6	-.1	1.9	3.1
2013	.0	.5	.4	-.1	.1	.2	-.3	.6	.5	-.1	.2	.2	3.0	1.8	1.6	2.7	2.0
2014	-.4	.8	1.0	.1	.4	.3	.2	-.2	.3	.0	.6	.0	2.8	5.6	2.2	2.2	3.0
2015	-.8	-.6	-.3	-.5	-.4	-.3	.6	-.2	-.3	-.5	-.7	-.5	-4.4	-5.4	.3	-5.4	-1.4
2016	.5	-.5	-.7	.3	-.2	.5	.1	-.2	-.1	.0	-.4	.7	-2.6	-1.3	.9	-.6	-2.2
2017	-.3	-.4	.7	1.0	.1	.2	-.2	-.4	.1	1.2	.2	.2	.0	6.0	-1.2	5.7	1.2
2018	.0	.2	.5	1.1	-.9	.8	.2	.6	.1	-.1	.1	.0	2.2	4.7	3.4	.8	3.2
2019	-.7	-.5	.0	-.6	.1	.0	-.5	.7	-.3	-.8	.5	-.2	-3.8	-2.6	-.3	-2.3	-.8
2020	-.7	.3	-3.9	-13.2	1.7	6.6	3.7	1.0	.0	.8	.4	1.3	-6.7	-41.6	43.6	7.5	-7.1
2021	.5	-3.3	2.9	.2	.9	.4	.5	-.2	-1.2	1.3	.7	-.3	1.0	6.9	1.8	3.3	4.4
2022	-.4	.6	.6	.0	-.1	-.3	.2	-.1	.2	.0	-.3	-1.2	1.0	1.9	-.2	-2.1	1.7
2023	.7	.1	.4	.2	-.3	-.8	.8	-.1	.2	-.5	.4	-.3	.3	.2	.6	-1.1	-.2
2024	-1.4	1.1	.2	-.2	.6	.0	-.9	.5	-.6	-.3	-.2	1.0	-2.6	2.7	-2.3	-1.5	-.7
2025	-.3	1.0	-.1	.1	-.2	.5	.4	-.3	.1	-.1	.2		4.2	1.8	2.1		
IP (*2017=100*)																	
2023	100.5	100.6	101.0	101.3	100.9	100.1	100.9	100.8	101.0	100.5	100.9	100.6	100.7	100.8	100.9	100.6	100.8
2024	99.2	100.3	100.5	100.2	100.9	100.9	100.0	100.4	99.8	99.5	99.3	100.3	100.0	100.7	100.1	99.7	100.1
2025	100.1	101.1	101.0	101.1	101.0	101.5	101.9	101.6	101.7	101.6	101.8		100.7	101.2	101.7		
Capacity (*percent of 2017 output*)																	
2023	129.5	129.7	129.8	130.0	130.1	130.3	130.4	130.5	130.6	130.7	130.8	130.9	129.7	130.1	130.5	130.8	130.3
2024	131.0	131.1	131.2	131.2	131.3	131.4	131.6	131.7	131.8	131.9	132.1	132.2	131.1	131.3	131.7	132.1	131.5
2025	132.4	132.6	132.7	132.9	133.0	133.2	133.4	133.5	133.7	133.9	134.0		132.6	133.0	133.5		
Utilization (*percent*)																	
2003	76.1	76.2	76.0	75.6	75.6	75.7	76.1	76.0	76.5	76.6	77.1	77.1	76.1	75.6	76.2	77.0	76.2
2004	77.3	77.8	77.5	77.8	78.4	77.8	78.4	78.4	78.5	79.2	79.3	79.9	77.5	78.0	78.4	79.5	78.3
2005	80.1	80.7	80.5	80.5	80.5	80.8	80.4	80.5	78.8	79.7	80.4	80.7	80.4	80.6	79.9	80.3	80.3
2006	80.7	80.6	80.7	80.8	80.7	80.8	80.6	80.8	80.4	80.2	80.0	80.6	80.7	80.7	80.6	80.2	80.6
2007	80.1	80.7	80.7	81.1	81.0	80.9	80.7	80.8	80.9	80.7	81.1	81.1	80.5	81.0	80.8	81.0	80.8
2008	81.1	80.8	80.5	80.0	79.6	79.4	79.0	77.7	74.2	74.9	73.8	71.6	80.8	79.7	77.0	73.4	77.7
2009	69.7	69.2	68.1	67.5	66.8	66.5	67.3	68.1	68.8	69.0	69.4	69.9	69.0	66.9	68.0	69.4	68.4
2010	70.8	71.2	71.8	72.2	73.3	73.6	74.0	74.4	74.7	74.6	74.7	75.5	71.2	73.0	74.4	74.9	73.4
2011	75.4	75.1	75.9	75.6	75.7	75.8	76.1	76.6	76.4	76.8	76.7	76.9	75.4	75.7	76.4	76.8	76.1
2012	77.3	77.4	76.8	77.2	77.3	77.1	77.1	76.7	76.5	76.6	76.8	76.8	77.2	77.2	76.8	76.7	77.0
2013	76.8	77.0	77.2	77.1	77.0	77.1	76.8	77.2	77.5	77.4	77.5	77.6	77.0	77.1	77.2	77.5	77.2
2014	77.3	77.8	78.5	78.5	78.7	78.9	79.0	78.8	78.9	78.9	79.3	79.2	77.8	78.7	78.9	79.1	78.6
2015	78.6	78.1	77.8	77.3	77.0	76.8	77.3	77.2	77.0	76.6	76.1	75.7	78.1	77.0	77.1	76.1	77.1
2016	76.1	75.7	75.2	75.4	75.2	75.5	75.6	75.4	75.3	75.3	74.9	75.4	75.7	75.4	75.4	75.2	75.4
2017	75.2	74.9	75.4	76.2	76.4	76.6	76.5	76.2	76.4	77.4	77.6	77.9	75.2	76.4	76.3	77.6	76.4
2018	77.9	78.2	78.6	79.5	78.8	79.4	79.5	79.9	79.9	79.8	79.8	79.7	78.2	79.2	79.8	79.8	79.2
2019	79.1	78.6	78.5	78.0	78.0	77.9	77.5	77.9	77.6	76.9	77.3	77.0	78.7	78.0	77.7	77.1	77.9
2020	76.5	76.8	73.8	64.1	65.2	69.5	72.2	73.0	73.1	73.9	74.3	75.4	75.7	66.3	72.8	74.5	72.3
2021	75.9	73.6	75.8	76.1	76.9	77.3	77.8	77.7	76.9	78.0	78.6	78.4	75.1	76.8	77.5	78.3	76.9
2022	78.1	78.6	79.0	79.0	78.9	78.6	78.7	78.5	78.6	78.5	78.2	77.1	78.6	78.9	78.6	77.9	78.5
2023	77.6	77.6	77.8	77.9	77.5	76.8	77.4	77.3	77.3	76.9	77.1	76.9	77.7	77.4	77.3	76.9	77.3
2024	75.8	76.5	76.6	76.4	76.8	76.8	76.0	76.3	75.7	75.4	75.2	75.9	76.3	76.6	76.0	75.5	76.1
2025	75.6	76.3	76.1	76.1	75.9	76.2	76.4	76.1	76.0	75.9	76.0		76.0	76.1	76.2		

1. Quarterly percentage changes are at annual rates. Annual percentage changes are calculated from annual averages.

Table 12
HISTORICAL STATISTICS FOR INDUSTRIAL PRODUCTION, CAPACITY, AND UTILIZATION: Manufacturing[1]
Seasonally adjusted

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Q1	Q2	Q3	Q4	Annual
IP (*percent change*)[2]																	
2003	.8	-.1	.1	-.7	.0	.5	.3	-.5	.8	.1	.9	-.1	2.2	-2.0	2.4	4.2	1.4
2004	-.1	.7	.0	.3	.7	-.7	.9	.4	.0	.9	.0	.8	2.4	3.1	4.0	5.4	3.0
2005	.6	.9	-.5	.4	.3	.2	-.3	.5	-1.1	1.4	.9	.1	6.5	2.7	-.5	6.2	4.1
2006	.8	-.3	.0	.4	-.2	.3	-.3	.7	.1	-.5	.1	1.5	4.0	.7	1.1	1.6	2.6
2007	-.3	.3	.8	.6	.0	.4	.0	-.3	.3	-.2	.5	.1	4.7	5.7	.5	1.2	2.8
2008	-.2	-.7	-.4	-1.0	-.6	-.7	-1.0	-1.3	-3.5	-.7	-2.5	-3.3	-2.3	-8.1	-13.5	-22.1	-4.7
2009	-3.2	-.1	-1.8	-.7	-1.1	-.3	1.5	1.1	1.0	.1	1.0	-.1	-24.8	-10.7	8.4	7.7	-13.8
2010	1.0	.0	1.2	.8	1.3	-.1	.5	.1	.1	.0	.1	.5	7.1	10.1	4.1	1.6	6.0
2011	.0	.2	.6	-.5	.0	.1	.6	.5	.2	.5	-.2	.7	3.0	-.1	4.5	3.9	2.9
2012	.8	.4	-.5	.5	-.3	.3	-.2	-.2	-.2	-.2	.6	.7	5.4	.6	-1.3	1.0	2.6
2013	-.2	.4	-.1	-.3	.3	.2	-.8	.9	.1	.2	.0	-.2	2.7	.2	.2	1.7	.9
2014	-1.0	.9	.9	.0	.3	.3	.4	-.6	.0	-.1	.7	-.2	-1.1	4.7	1.4	.1	1.1
2015	-.6	-.7	.4	.0	.0	-.4	.8	-.3	-.3	-.1	-.3	-.3	-3.5	-.5	.8	-2.8	-.6
2016	.4	-.3	-.1	-.1	-.1	.2	.0	-.4	.2	.1	-.1	.0	-.4	-.9	-.2	-.1	-.8
2017	.1	-.1	-.3	1.2	-.1	.1	-.4	-.2	.0	1.1	.1	-.3	-.4	3.4	-2.0	3.9	.4
2018	-.3	.8	-.1	.7	-.8	.6	.1	.2	.0	-.4	-.3	.3	.3	2.4	1.6	-1.4	1.3
2019	-.9	-.6	-.3	-.6	.0	.4	-.7	.6	-.8	-.8	.8	.1	-4.7	-3.4	-1.2	-2.4	-2.0
2020	-.3	.2	-4.6	-15.2	4.3	7.7	3.7	1.6	.1	1.0	.5	.7	-5.4	-43.4	54.7	9.1	-6.5
2021	.9	-4.0	3.1	.2	1.0	.0	.9	-.5	-1.2	1.4	.6	-.1	-.5	6.1	2.0	3.0	4.9
2022	-.9	.6	.5	-.1	-.5	-.6	.0	.0	.0	.3	-.8	-1.7	-1.1	-.2	-2.0	-3.3	.4
2023	1.7	.0	-.7	.9	-.2	-.7	.4	-.1	.1	-.5	.4	-.1	.3	.2	-.8	-.9	-.9
2024	-1.5	1.3	.1	-.6	.6	-.2	-.8	.5	-.5	-.7	.2	.4	-2.0	1.1	-2.4	-2.4	-1.0
2025	-.4	1.3	.4	-.1	-.1	.3	.4	.0	.0	-.4	.0		3.9	2.5	2.4		
IP (*2017=100*)																	
2023	97.1	97.2	96.5	97.3	97.1	96.5	96.8	96.7	96.8	96.3	96.7	96.7	96.9	97.0	96.8	96.6	96.8
2024	95.2	96.5	96.6	96.0	96.6	96.4	95.6	96.1	95.6	94.9	95.1	95.5	96.1	96.4	95.8	95.2	95.8
2025	95.1	96.4	96.8	96.7	96.5	96.9	97.2	97.3	97.3	96.9	97.0		96.1	96.7	97.3		
Capacity (*percent of 2017 output*)																	
2023	125.9	125.9	126.0	126.0	126.1	126.1	126.2	126.2	126.3	126.3	126.4	126.4	125.9	126.1	126.2	126.4	126.1
2024	126.5	126.6	126.6	126.7	126.8	126.9	126.9	127.0	127.1	127.2	127.3	127.4	126.6	126.8	127.0	127.3	126.9
2025	127.5	127.6	127.7	127.8	127.9	128.1	128.2	128.3	128.4	128.5	128.7		127.6	127.9	128.3		
Utilization (*percent*)																	
2003	74.1	74.0	74.1	73.6	73.6	74.0	74.2	73.9	74.5	74.6	75.3	75.3	74.1	73.7	74.2	75.1	74.3
2004	75.2	75.8	75.8	76.1	76.6	76.1	76.8	77.1	77.1	77.8	77.7	78.2	75.6	76.3	77.0	77.9	76.7
2005	78.6	79.2	78.7	78.9	78.9	78.9	78.5	78.7	77.7	78.6	79.2	79.1	78.8	78.9	78.3	79.0	78.8
2006	79.6	79.2	79.1	79.2	78.9	78.9	78.5	79.0	78.9	78.3	78.3	79.2	79.3	79.0	78.8	78.6	78.9
2007	78.8	78.8	79.3	79.6	79.4	79.5	79.3	78.9	79.0	78.7	79.0	79.0	79.0	79.5	79.0	78.9	79.1
2008	78.8	78.2	77.8	77.1	76.6	76.1	75.4	74.5	72.0	71.6	69.9	67.7	78.2	76.6	74.0	69.7	74.6
2009	65.6	65.6	64.5	64.1	63.5	63.4	64.5	65.3	66.1	66.3	67.1	67.1	65.2	63.7	65.3	66.8	65.3
2010	67.9	68.0	69.0	69.6	70.6	70.7	71.2	71.4	71.5	71.7	71.9	72.3	68.3	70.3	71.4	72.0	70.5
2011	72.4	72.6	73.1	72.8	72.8	72.9	73.3	73.7	73.8	74.2	74.0	74.4	72.7	72.8	73.6	74.2	73.3
2012	74.9	75.2	74.7	74.9	74.6	74.8	74.5	74.3	74.1	73.9	74.3	74.8	74.9	74.8	74.3	74.3	74.6
2013	74.6	74.9	74.8	74.5	74.8	75.0	74.4	75.1	75.1	75.3	75.3	75.2	74.7	74.8	74.9	75.3	74.9
2014	74.5	75.2	75.9	76.0	76.2	76.6	77.0	76.6	76.7	76.7	77.3	77.2	75.2	76.3	76.7	77.0	76.3
2015	76.8	76.4	76.7	76.8	76.9	76.7	77.3	77.1	76.9	76.8	76.6	76.4	76.7	76.8	77.1	76.6	76.8
2016	76.7	76.4	76.3	76.2	76.1	76.2	76.3	75.9	76.0	76.1	76.0	76.1	76.5	76.2	76.1	76.1	76.2
2017	76.2	76.2	76.0	77.0	77.0	77.1	76.9	76.9	77.0	77.9	78.0	77.9	76.1	77.0	76.9	78.0	77.0
2018	77.8	78.5	78.5	79.0	78.4	78.9	79.0	79.2	79.3	78.9	78.7	79.0	78.2	78.8	79.2	78.9	78.8
2019	78.3	77.9	77.7	77.2	77.3	77.6	77.1	77.6	77.0	76.4	77.1	77.2	78.0	77.4	77.2	76.9	77.4
2020	77.0	77.2	73.7	62.6	65.3	70.4	73.1	74.3	74.4	75.3	75.8	76.4	76.0	66.1	73.9	75.8	73.0
2021	77.2	74.1	76.5	76.7	77.5	77.6	78.3	77.9	77.0	78.1	78.6	78.4	75.9	77.3	77.7	78.4	77.3
2022	77.7	78.2	78.6	78.5	78.1	77.7	77.7	77.7	77.7	77.9	77.2	75.9	78.2	78.1	77.7	77.0	77.7
2023	77.2	77.1	76.6	77.2	77.1	76.5	76.7	76.7	76.7	76.3	76.5	76.5	77.0	76.9	76.7	76.4	76.8
2024	75.3	76.2	76.3	75.8	76.2	76.0	75.3	75.6	75.2	74.6	74.7	75.0	75.9	76.0	75.4	74.8	75.5
2025	74.6	75.5	75.8	75.6	75.5	75.6	75.9	75.8	75.8	75.4	75.4		75.3	75.6	75.8		

1. The composition of manufacturing is specified in a note for the summary table.
2. Quarterly percentage changes are at annual rates. Annual percentage changes are calculated from annual averages.

Table 13
HISTORICAL STATISTICS FOR INDUSTRIAL PRODUCTION, CAPACITY, AND UTILIZATION: Total Industry Excluding Selected High-Technology Industries[1]

Seasonally adjusted

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Q1	Q2	Q3	Q4	Annual
IP (*percent change*)[2]																	
2003	.8	-.1	-.4	-.7	-.2	.0	.3	-.4	.5	.0	.6	.0	1.6	-4.5	.8	2.4	.3
2004	.0	.6	-.5	.4	.7	-.8	.8	.0	.1	.8	.2	.7	1.7	2.0	2.0	5.2	1.6
2005	.2	.6	-.2	.1	.0	.4	-.4	.2	-2.2	1.1	1.1	.5	4.8	1.4	-2.9	2.6	2.6
2006	.1	.0	.2	.3	-.1	.3	-.1	.3	-.3	-.2	-.1	1.0	3.4	1.8	.8	.1	1.5
2007	-.4	.9	.0	.5	.1	.2	-.1	.1	.1	-.5	.4	-.1	3.3	4.0	.5	-.6	1.8
2008	-.2	-.5	-.4	-.7	-.7	-.2	-.3	-1.6	-4.5	1.2	-1.1	-2.7	-2.5	-6.7	-12.1	-15.0	-4.2
2009	-2.5	-.7	-1.7	-.9	-1.1	-.4	1.1	1.1	.8	.2	.4	.4	-20.6	-11.8	6.2	6.2	-11.4
2010	1.0	.2	.6	.3	1.4	.2	.3	.3	.3	-.3	.0	.9	7.1	7.1	5.0	1.1	4.9
2011	-.3	-.4	1.1	-.3	.1	.3	.5	.6	-.1	.7	.0	.5	1.6	1.7	4.7	4.3	2.8
2012	.6	.3	-.6	.7	.2	.0	.2	-.4	-.1	.3	.4	.2	3.6	2.2	-.2	1.6	2.9
2013	.0	.5	.4	-.1	.0	.2	-.4	.6	.5	-.1	.2	.2	2.9	1.5	1.3	2.5	1.7
2014	-.4	.7	1.0	.1	.3	.3	.2	-.2	.3	.0	.6	.0	2.6	5.3	2.1	2.2	2.8
2015	-.8	-.7	-.3	-.6	-.5	-.3	.7	-.2	-.3	-.5	-.7	-.5	-4.5	-5.7	.3	-5.5	-1.6
2016	.5	-.5	-.8	.3	-.3	.5	.1	-.2	-.2	.0	-.5	.7	-2.8	-1.5	.6	-1.1	-2.4
2017	-.3	-.4	.7	1.0	.1	.2	-.2	-.4	.1	1.2	.2	.2	.0	5.8	-1.2	5.4	1.0
2018	.0	.3	.5	1.1	-.9	.8	.1	.6	.1	-.1	.1	.0	2.0	4.7	3.1	.9	3.0
2019	-.7	-.6	.0	-.6	.1	.0	-.5	.7	-.3	-.9	.5	-.3	-4.1	-2.7	-.4	-2.4	-.9
2020	-.7	.4	-4.0	-13.4	1.7	6.7	3.8	1.0	.0	.8	.3	1.3	-6.9	-42.2	44.6	7.1	-7.3
2021	.5	-3.4	2.9	.1	.9	.4	.5	-.2	-1.2	1.3	.6	-.3	.8	6.7	2.1	3.0	4.3
2022	-.4	.6	.6	.1	-.1	-.4	.2	-.1	.2	.0	-.3	-1.2	.6	1.7	-.5	-2.1	1.5
2023	.8	.1	.4	.2	-.3	-.8	.8	-.1	.2	-.6	.4	-.3	.4	.0	.6	-1.3	-.3
2024	-1.4	1.1	.2	-.3	.6	.0	-.9	.4	-.6	-.4	-.2	1.0	-2.6	2.5	-2.6	-1.7	-.8
2025	-.4	1.0	-.1	.1	-.2	.5	.3	-.3	.1	-.1	.2		3.8	1.7	2.0		
IP (*2017=100*)																	
2023	99.7	99.8	100.2	100.4	100.1	99.3	100.0	100.0	100.2	99.6	100.0	99.7	99.9	99.9	100.1	99.7	99.9
2024	98.3	99.4	99.5	99.3	99.9	99.9	99.0	99.4	98.7	98.4	98.2	99.2	99.1	99.7	99.0	98.6	99.1
2025	98.9	99.9	99.8	99.9	99.7	100.2	100.6	100.3	100.4	100.3	100.5		99.5	99.9	100.4		
Capacity (*percent of 2017 output*)																	
2023	128.6	128.7	128.9	129.0	129.1	129.2	129.3	129.4	129.5	129.5	129.6	129.7	128.7	129.1	129.4	129.6	129.2
2024	129.7	129.8	129.9	129.9	130.0	130.1	130.2	130.3	130.4	130.5	130.6	130.7	129.8	130.0	130.3	130.6	130.2
2025	130.9	131.0	131.1	131.2	131.4	131.5	131.6	131.7	131.8	132.0	132.1		131.0	131.4	131.7		
Utilization (*percent*)																	
2003	77.4	77.4	77.1	76.6	76.5	76.5	76.8	76.6	77.0	77.1	77.5	77.6	77.3	76.6	76.8	77.4	77.0
2004	77.6	78.1	77.8	78.2	78.8	78.2	78.8	78.9	79.0	79.7	79.9	80.5	77.8	78.4	78.9	80.0	78.8
2005	80.7	81.2	81.0	81.0	81.0	81.3	80.8	80.9	79.1	79.9	80.7	81.0	81.0	81.1	80.3	80.5	80.7
2006	80.9	80.8	80.9	81.0	80.8	80.9	80.7	80.8	80.5	80.2	80.0	80.7	80.9	80.9	80.6	80.3	80.7
2007	80.2	80.9	80.8	81.1	81.2	81.3	81.1	81.2	81.3	81.0	81.3	81.3	80.6	81.2	81.2	81.2	81.1
2008	81.2	80.7	80.4	79.8	79.3	79.1	78.8	77.4	73.8	74.6	73.7	71.6	80.8	79.4	76.7	73.3	77.5
2009	69.7	69.1	67.9	67.2	66.5	66.2	67.0	67.8	68.5	68.8	69.2	69.6	68.9	66.6	67.8	69.2	68.1
2010	70.5	70.8	71.4	71.8	73.0	73.3	73.7	74.1	74.4	74.3	74.4	75.2	70.9	72.7	74.0	74.6	73.1
2011	75.0	74.8	75.6	75.4	75.5	75.7	76.1	76.5	76.4	76.9	76.8	77.1	75.1	75.5	76.3	76.9	76.0
2012	77.4	77.5	76.9	77.4	77.4	77.2	77.3	76.9	76.7	76.8	77.0	77.0	77.3	77.3	76.9	76.9	77.1
2013	76.9	77.2	77.5	77.3	77.3	77.3	77.0	77.4	77.7	77.6	77.7	77.8	77.2	77.3	77.4	77.7	77.4
2014	77.5	78.0	78.7	78.7	78.9	79.1	79.2	79.0	79.1	79.1	79.5	79.4	78.1	78.9	79.1	79.3	78.9
2015	78.7	78.2	77.9	77.5	77.1	76.9	77.4	77.3	77.1	76.8	76.2	75.9	78.3	77.1	77.3	76.3	77.2
2016	76.3	75.9	75.3	75.6	75.4	75.7	75.8	75.6	75.5	75.4	75.1	75.6	75.8	75.6	75.6	75.4	75.6
2017	75.4	75.1	75.6	76.3	76.5	76.7	76.6	76.3	76.4	77.4	77.7	77.9	75.3	76.5	76.4	77.7	76.5
2018	77.9	78.2	78.6	79.5	78.8	79.4	79.5	80.0	80.0	79.9	79.9	79.9	78.3	79.3	79.9	79.9	79.3
2019	79.2	78.7	78.7	78.1	78.1	78.1	77.6	78.1	77.8	77.0	77.4	77.1	78.9	78.1	77.8	77.2	78.0
2020	76.6	76.9	73.8	63.9	65.1	69.5	72.2	73.0	73.1	73.8	74.2	75.3	75.8	66.2	72.8	74.5	72.3
2021	75.9	73.5	75.8	76.0	76.8	77.3	77.8	77.7	76.8	77.9	78.5	78.3	75.0	76.7	77.4	78.2	76.9
2022	78.0	78.4	78.9	78.9	78.8	78.4	78.5	78.4	78.4	78.3	78.0	77.0	78.4	78.7	78.4	77.8	78.3
2023	77.5	77.5	77.8	77.8	77.5	76.8	77.4	77.3	77.4	76.9	77.1	76.9	77.6	77.4	77.3	77.0	77.3
2024	75.8	76.6	76.7	76.4	76.8	76.8	76.0	76.3	75.7	75.4	75.2	75.9	76.3	76.7	76.0	75.5	76.1
2025	75.5	76.3	76.1	76.1	75.9	76.2	76.4	76.2	76.2	76.0	76.1		76.0	76.1	76.2		

1. Selected high-technology industries are computers, communications equipment, and semiconductors and related electronic components.
2. Quarterly percentage changes are at annual rates. Annual percentage changes are calculated from annual averages.

Table 14
HISTORICAL STATISTICS FOR INDUSTRIAL PRODUCTION, CAPACITY, AND UTILIZATION: Manufacturing[1] Excluding Selected High-Technology Industries[2]
Seasonally adjusted

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Q1	Q2	Q3	Q4	Annual
IP (*percent change*)[3]																	
2003	.8	-.3	.0	-.9	-.1	.3	.1	-.7	.7	-.1	.8	-.2	1.0	-4.0	.1	2.5	.1
2004	-.3	.7	-.1	.3	.7	-.7	.9	.4	-.1	.9	-.1	.7	1.2	3.0	3.8	4.8	1.9
2005	.5	.8	-.6	.3	.2	.1	-.5	.4	-1.4	1.4	.9	.1	5.2	1.5	-2.1	4.8	3.1
2006	.8	-.4	-.1	.3	-.4	.2	-.4	.6	.0	-.6	.0	1.5	3.3	-.2	.0	.6	1.6
2007	-.4	.2	.6	.4	.0	.5	.0	-.4	.1	-.4	.3	.0	3.6	4.6	.4	-1.2	1.8
2008	-.3	-.9	-.6	-1.1	-.7	-.7	-.9	-1.3	-3.5	-.4	-2.3	-3.2	-4.2	-9.6	-13.5	-20.9	-5.9
2009	-3.3	-.2	-2.0	-.8	-1.2	-.4	1.5	1.1	1.0	.0	1.0	-.1	-24.8	-11.9	8.1	7.0	-14.0
2010	.9	-.2	1.1	.7	1.3	-.1	.5	.1	.0	.0	.0	.4	5.5	9.3	3.6	.9	5.1
2011	.0	.2	.7	-.6	.0	.1	.6	.4	.3	.6	-.2	.7	2.3	-.2	4.3	3.9	2.5
2012	.8	.3	-.6	.5	-.4	.2	-.2	-.1	-.3	-.3	.6	.7	4.9	.0	-1.6	.5	2.3
2013	-.3	.4	-.2	-.4	.3	.2	-.9	.8	.0	.1	-.1	-.2	2.4	-.3	-.4	1.3	.5
2014	-1.1	.9	.8	.0	.2	.3	.5	-.6	.0	-.1	.7	-.2	-1.4	4.3	1.1	.0	.8
2015	-.6	-.8	.4	.0	.0	-.4	.8	-.3	-.3	-.2	-.2	-.3	-3.6	-.7	.9	-2.9	-.7
2016	.4	-.4	-.1	-.1	-.1	.2	.0	-.5	.1	.0	-.1	.0	-.7	-1.2	-.7	-.6	-1.0
2017	.2	-.1	-.4	1.1	-.2	.1	-.4	-.2	.0	1.0	.0	-.3	-.4	3.0	-2.0	3.6	.2
2018	-.3	.9	-.1	.7	-.9	.6	.0	.2	.1	-.4	-.2	.3	.1	2.2	1.2	-1.3	1.1
2019	-1.0	-.6	-.3	-.6	.0	.4	-.8	.6	-.8	-.8	.8	.1	-5.1	-3.6	-1.4	-2.5	-2.3
2020	-.3	.2	-4.8	-15.6	4.5	8.0	3.7	1.6	.0	1.0	.5	.7	-5.6	-44.2	56.4	8.6	-6.8
2021	1.0	-4.2	3.1	.1	1.0	.0	1.0	-.5	-1.2	1.4	.5	-.2	-.7	5.9	2.3	2.6	4.8
2022	-.9	.5	.5	-.1	-.5	-.6	.0	-.1	.0	.3	-.8	-1.7	-1.6	-.6	-2.5	-3.3	.1
2023	1.8	.0	-.7	.8	-.2	-.7	.3	.0	.1	-.5	.4	-.1	.4	-.1	-.9	-1.1	-1.1
2024	-1.5	1.3	.1	-.6	.6	-.2	-.9	.4	-.5	-.7	.2	.3	-2.0	.7	-2.8	-2.8	-1.2
2025	-.5	1.3	.4	-.1	-.1	.4	.3	.1	.1	-.4	.0		3.3	2.4	2.3		
IP (*2017=100*)																	
2023	96.0	96.0	95.4	96.1	95.9	95.2	95.6	95.5	95.6	95.1	95.4	95.4	95.8	95.8	95.6	95.3	95.6
2024	93.9	95.2	95.3	94.7	95.2	95.0	94.2	94.6	94.1	93.4	93.6	93.9	94.8	95.0	94.3	93.7	94.4
2025	93.5	94.7	95.1	95.0	94.8	95.2	95.5	95.5	95.6	95.2	95.2		94.4	95.0	95.5		
Capacity (*percent of 2017 output*)																	
2023	124.6	124.6	124.6	124.6	124.6	124.6	124.6	124.6	124.7	124.7	124.7	124.7	124.6	124.6	124.6	124.7	124.6
2024	124.8	124.8	124.8	124.9	124.9	125.0	125.0	125.1	125.1	125.2	125.3	125.3	124.8	124.9	125.1	125.3	125.0
2025	125.4	125.4	125.5	125.6	125.6	125.7	125.8	125.9	125.9	126.0	126.1		125.4	125.6	125.9		
Utilization (*percent*)																	
2003	75.5	75.3	75.3	74.6	74.6	74.8	74.9	74.5	75.1	75.1	75.7	75.6	75.3	74.7	74.8	75.5	75.1
2004	75.5	76.1	76.1	76.4	77.0	76.5	77.3	77.6	77.6	78.3	78.3	78.8	75.9	76.6	77.5	78.5	77.1
2005	79.2	79.7	79.2	79.4	79.4	79.4	78.9	79.1	77.9	78.9	79.4	79.3	79.4	79.4	78.7	79.2	79.2
2006	79.8	79.4	79.2	79.3	78.9	79.0	78.5	78.9	78.8	78.3	78.2	79.2	79.5	79.1	78.8	78.6	79.0
2007	78.8	78.9	79.3	79.5	79.5	79.8	79.7	79.3	79.3	79.0	79.1	79.0	79.0	79.6	79.5	79.0	79.3
2008	78.7	78.0	77.5	76.6	76.1	75.5	74.9	74.0	71.4	71.1	69.6	67.4	78.1	76.1	73.4	69.4	74.2
2009	65.3	65.3	64.0	63.6	63.0	62.9	64.0	64.9	65.7	65.8	66.6	66.7	64.9	63.2	64.8	66.4	64.8
2010	67.4	67.4	68.4	69.0	70.0	70.1	70.6	70.8	71.0	71.1	71.3	71.7	67.7	69.7	70.8	71.4	69.9
2011	71.8	72.1	72.7	72.4	72.5	72.6	73.1	73.5	73.7	74.1	74.0	74.4	72.2	72.5	73.4	74.2	73.1
2012	75.0	75.2	74.7	75.0	74.7	74.8	74.6	74.5	74.2	74.0	74.5	75.0	75.0	74.9	74.4	74.5	74.7
2013	74.8	75.1	75.0	74.8	75.0	75.2	74.6	75.3	75.4	75.5	75.6	75.5	74.9	75.0	75.1	75.5	75.1
2014	74.7	75.5	76.2	76.2	76.5	76.8	77.2	76.8	76.8	76.8	77.5	77.4	75.5	76.5	76.9	77.2	76.5
2015	77.0	76.5	76.9	76.9	77.0	76.8	77.5	77.3	77.1	77.0	76.8	76.6	76.8	76.9	77.3	76.8	77.0
2016	76.9	76.6	76.6	76.4	76.4	76.5	76.5	76.2	76.3	76.3	76.2	76.3	76.7	76.4	76.3	76.3	76.4
2017	76.4	76.4	76.2	77.1	77.1	77.3	77.1	77.0	77.1	78.0	78.1	78.0	76.3	77.2	77.1	78.0	77.2
2018	77.8	78.5	78.5	79.1	78.5	79.0	79.1	79.3	79.4	79.1	78.9	79.2	78.3	78.9	79.2	79.1	78.9
2019	78.5	78.0	77.8	77.4	77.4	77.8	77.2	77.8	77.2	76.6	77.2	77.3	78.1	77.5	77.4	77.1	77.5
2020	77.2	77.4	73.8	62.3	65.2	70.4	73.1	74.4	74.5	75.3	75.7	76.3	76.1	66.0	74.0	75.8	73.0
2021	77.2	74.0	76.4	76.6	77.4	77.5	78.3	77.9	77.0	78.0	78.4	78.3	75.9	77.1	77.7	78.3	77.2
2022	77.6	78.0	78.3	78.3	77.9	77.4	77.4	77.4	77.4	77.6	77.0	75.7	78.0	77.9	77.4	76.8	77.5
2023	77.1	77.0	76.5	77.2	77.0	76.4	76.7	76.6	76.7	76.3	76.5	76.5	76.9	76.9	76.7	76.4	76.7
2024	75.3	76.3	76.3	75.8	76.2	76.1	75.4	75.6	75.2	74.6	74.7	75.0	76.0	76.0	75.4	74.8	75.5
2025	74.6	75.5	75.8	75.6	75.5	75.7	75.9	75.9	75.9	75.5	75.5		75.3	75.6	75.9		

1. The composition of manufacturing is specified in a note for the summary table.
2. Selected high-technology industries are computers, communications equipment, and semiconductors and related electronic components.
3. Quarterly percentage changes are at annual rates. Annual percentage changes are calculated from annual averages.

Table 15
INDUSTRIAL PRODUCTION: RELIABILITY ESTIMATES

Seasonally adjusted

Item	Annualized change		2017=100							Percent change						
	2025 Q2	Q3	2025 May	June	July	Aug.	Sept.	Oct.	Nov.	2025 May	June	July	Aug.	Sept.	Oct.	Nov.
Total index																
85th percentile	1.82	2.51	100.97	101.48	101.92	101.71	101.86	101.93	102.18	-.16	.51	.44	-.17	.23	.24	.48
Current estimate	1.82	2.09	100.97	101.48	101.87	101.60	101.67	101.62	101.79	-.16	.51	.39	-.27	.07	-.06	.17
15th percentile	1.82	1.63	100.97	101.48	101.81	101.49	101.49	101.30	101.37	-.16	.51	.33	-.37	-.05	-.31	-.20
Manufacturing (SIC)																
85th percentile	2.50	2.92	96.55	96.86	97.31	97.39	97.49	97.17	97.32	-.12	.32	.47	.11	.15	-.19	.32
Current estimate	2.50	2.44	96.55	96.86	97.25	97.27	97.30	96.94	96.98	-.12	.32	.41	.02	.03	-.37	.04
15th percentile	2.50	1.91	96.55	96.86	97.19	97.14	97.08	96.64	96.46	-.12	.32	.35	-.08	-.12	-.57	-.31
Mining																
85th percentile	5.99	5.37	120.49	121.36	121.75	122.83	122.24	122.06	124.30	.39	.72	.32	1.01	-.23	.17	2.59
Current estimate	5.99	4.45	120.49	121.36	121.62	122.50	121.70	120.77	122.77	.39	.72	.21	.73	-.66	-.76	1.66
15th percentile	5.99	3.50	120.49	121.36	121.43	122.13	121.17	119.54	121.08	.39	.72	.06	.45	-1.00	-1.50	.67
Electric and gas utilities																
85th percentile	-6.05	-1.17	107.75	109.32	109.84	106.59	108.23	112.37	111.97	-.96	1.45	.48	-2.95	1.58	4.35	1.49
Current estimate	-6.05	-2.26	107.75	109.32	109.83	106.52	107.66	110.46	110.02	-.96	1.45	.46	-3.01	1.07	2.61	-.40
15th percentile	-6.05	-2.59	107.75	109.32	109.81	106.45	107.49	109.15	108.68	-.96	1.45	.45	-3.09	.86	1.09	-2.17

Note. The reliability measures show the likely range of values for the IP indexes after their fifth and final monthly revision. The 15th (85th) percentile estimate is equal to the current estimate plus an amount such that the equivalent measure revised by a lower (higher) amount for only 15 percent of the months since 2008, excluding April 2025 through November 2025. More information is available at https://www.federalreserve.gov/releases/g17/g17_technical_qa.htm#reliability and https://www.federalreserve.gov/releases/g17/g17_technical_qa.htm#reliability202512.

Explanatory Note

The **Industrial Production and Capacity Utilization** statistical release, which is published around the middle of the month, reports measures of output, capacity, and capacity utilization in manufacturing, mining, and the electric and gas utilities industries. More detailed descriptions of industrial production and capacity utilization are available on the Board's website at **www.federalreserve.gov/releases/G17**. In addition, files containing data shown in the release, more detailed series that were published in the G.17 prior to December 2000, and historical data are available from the Data Download Program on the Board's website. Instructions for searching for and downloading specific series are provided as well.

Industrial Production

Coverage. The industrial production (IP) index measures the real output of the manufacturing, mining, and electric and gas utilities industries; the reference period for the index is 2017. Manufacturing consists of those industries included in the North American Industry Classification System, or NAICS, definition of manufacturing *plus* those industries— logging and newspaper, periodical, book, and directory publishing (except exclusive Internet publishing)—that have traditionally been considered to be manufacturing and included in the industrial sector. For the period since 2017, the total IP index has been constructed from 297 individual series based on the 2022 NAICS codes. These individual series are classified in two ways: (1) market groups, and (2) industry groups. Market groups consist of products and materials. Total products are the aggregate of final products, such as consumer goods and equipment, and nonindustrial supplies (which are inputs to nonindustrial sectors). Materials are inputs in the manufacture of products. Major industry groups include three-digit NAICS industries and aggregates of these industries—for example, durable and nondurable manufacturing, mining, and utilities. A complete description of the market and industry structures, including details regarding series classification, relative importance weights, and data sources, is available on the Board's website at **www.federalreserve.gov/releases/G17/About.htm**.

Source Data. On a monthly basis, the individual indexes of industrial production are constructed from two main types of source data: (1) output measured in physical units and (2) data on inputs to the production process, from which output is inferred. Data on physical products, such as tons of steel or barrels of oil, are typically obtained from private trade associations and from government agencies; data of this type are used to estimate monthly IP wherever possible and appropriate. Production indexes for a few industries are derived by dividing estimated nominal output (calculated using unit production and unit values or sales) by a corresponding Fisher price index; the most notable of these fall within the high-technology grouping and include semiconductors. When suitable data on physical product are not available, estimates of output are based on production-worker hours by industry. Data on hours worked by production workers are collected in the monthly establishment survey conducted by the Bureau of Labor Statistics. The factors used to convert inputs into estimates of production are based on historical relationships between the inputs and the comprehensive annual data used to benchmark the IP indexes; these factors also may be influenced by technological or cyclical developments. The annual data used in benchmarking the individual IP indexes are constructed from a variety of source data, such as the quinquennial *Censuses of Manufactures and Mineral Industries* and the *Annual Survey of Manufactures*, prepared by the Bureau of the Census; the *Minerals Yearbook*, prepared by the U.S. Geological Survey of the Department of the Interior; and publications of the Department of Energy.

Aggregation Methodology and Weights. The aggregation method for the IP index is a version of the Fisher-ideal index formula. (For a detailed discussion of the aggregation method, see the *Federal Reserve Bulletin* February 1997 and March 2001.) In the IP index, series that measure the output of an individual industry are combined using weights derived from their proportion in the total value-added output of all industries. The IP index, which extends back to 1919, is built as a chain-type index since 1972. The current formula for the growth in monthly IP (or any of the sub-aggregates) since 1972 is the geometric mean of the change in output (I), and, as can be seen below, is computed using the unit value added estimate for the current month (p_m) and the estimate for previous month:

$$\frac{I_m^A}{I_{m-1}^A} = \sqrt{\frac{\sum I_m p_{m-1}}{\sum I_{m-1} p_{m-1}} \times \frac{\sum I_m p_m}{\sum I_{m-1} p_m}}$$

The IP proportions (typically shown in the first column of the relevant tables in the monthly G.17 release) are estimates of the industries' relative contributions to overall growth in the following year. For example, the relative importance weight of the motor vehicles and parts industry is about 5 percent. If output in this industry increased 10 percent in a month, then this gain would boost growth in total IP by $5/10$ percentage point (0.05 x 10% = 0.5%). To assist users with calculations, the Federal Reserve's website provides supplemental monthly statistics that represent the exact proportionate contribution of a monthly change in a component index to the monthly change in the total index (**www.federalreserve.gov/releases/G17/ipdisk/ipweightssa.txt**).

Timing. The first estimate of output for a month is published around the 15th of the following month. The estimate is preliminary (denoted by the superscript "p" in tables) and subject to revision in each of the subsequent five months as new source data become available. (Revised estimates are denoted by the superscript "r" in tables.) For the first estimate of output for a given month, about 78 percent of the source data (in value-added terms) are available; the fraction of available source data increases to 86 percent for estimates in the second month that the estimate is published, 92 percent in the third month, 95 percent in the fourth month, 98 percent in the fifth month, and 98 percent in the sixth month. Data availability by data type in 2024 is summarized in the table below:

Availability of Monthly IP Data in Publication Window
(Percent of value added in 2024; the numbers may not sum because of rounding.)

	Month of estimate					
Type of data	1st	2nd	3rd	4th	5th	6th
Physical product	33	41	48	51	54	54
Production-worker hours	44	44	44	44	44	44
IP data received	78	86	92	95	98	98
IP data estimated	22	14	8	5	2	2

The physical product group includes series based on either monthly or quarterly data. As can be seen in the first row of the table, in the first month, a physical product indicator is available for more than one-half of the series (in terms of value added) that ultimately are based on physical product data (33 percent out of a total of 54 percent). Of the 33 percent, two-thirds (22 percent of total IP) include series that are derived from weekly physical product data and for which actual monthly data may lag up to several months. On average, quarterly product data are received for the fourth estimate of industrial production. Specifically, quarterly data are available for the third estimate of the last month of a quarter, the fourth estimate of the second month of a quarter, and the fifth estimate of the first month of a quarter.

Seasonal adjustment. Individual series are seasonally adjusted using Census X-13 ARIMA. For series based on production-worker hours, the current seasonal factors were estimated with data through August 2025; for other series, the factors were estimated with data through August 2025, where available. Series are pre-adjusted for the effects of holidays or the business cycle when appropriate. For the data since 1972, all seasonally adjusted aggregate indexes are calculated by aggregating the seasonally adjusted indexes of the individual series. Additional documentation and X-13 specifications can be found on the Board's website at **www.federalreserve.gov/releases/G17/About.htm**.

Reliability. The average revision to the *level* of the total IP index, without regard to sign, between the first and the fourth estimates was

0.30 percent during the 1987–2025 period. The average revision to the *percent change* in total IP, without regard to sign, from the first to the fourth estimates was 0.24 percentage point during the 1987–2025 period. In most cases (about 85 percent), the direction of the change in output indicated by the first estimate for a given month is the same as that shown by the fourth estimate.

Rounding. The published percent changes are calculated from unrounded indexes, and may not be the same as percent changes calculated from the rounded indexes shown in the release.

Capacity Utilization

Overview. The Federal Reserve Board constructs estimates of capacity and capacity utilization for industries in manufacturing, mining, and electric and gas utilities. For a given industry, the capacity utilization rate is equal to an output index (seasonally adjusted) divided by a capacity index. The Federal Reserve Board's capacity indexes attempt to capture the concept of *sustainable maximum output*—the greatest level of output a plant can maintain within the framework of a realistic work schedule, after factoring in normal downtime and assuming sufficient availability of inputs to operate the capital in place.

Coverage. Capacity indexes are constructed for 89 detailed industries (71 in manufacturing, 16 in mining, and 2 in utilities), which mostly correspond to industries at the three- and four-digit North American Industry Classification System, or NAICS, level. Estimates of capacity and utilization are available for a variety of groups, including durable and nondurable manufacturing, total manufacturing, mining, utilities, and total industry. Manufacturing consists of those industries included in the NAICS definition of manufacturing *plus* those industries—logging and newspaper, periodical, book, and directory publishing (except exclusive Internet publishing)—that have traditionally been considered to be manufacturing and included in the industrial sector. Also, special aggregates are available, such as high-technology industries and manufacturing excluding high-technology industries.

Source Data. The monthly rates of capacity utilization are designed to be consistent with both the monthly data on production and the periodically available data on capacity and utilization. Because there is no direct monthly information on overall industrial capacity or utilization rates, the Federal Reserve first estimates annual capacity indexes from the source data. Capacity data reported in physical units from government sources (primarily from the U.S. Geological Survey and the Department of Energy's Energy Information Administration) and trade sources are available for portions of several industries in manufacturing (for example, paper, industrial chemicals, petroleum refining, motor vehicles), as well as for electric utilities and mining; these industries represent about 26 percent of total industrial capacity. When physical product data are unavailable for manufacturing industries, capacity indexes are based on responses to the Bureau of the Census's *Quarterly Survey of Plant Capacity* (QSPC); these industries account for about 64 percent of total industry capacity. In the absence of utilization data for a few mining and petroleum series, capacity is based on trends through peaks in production (roughly 10 percent of total industry capacity). A detailed description of the methodology used to construct the capacity indexes is available on the Board's website (**www.federalreserve.gov/releases/G17/Meth/MethCap.htm**).

Aggregation Methodology. Monthly capacity aggregates are calculated in three steps: (1) utilization aggregates are calculated on an annual basis through the most recent full year as capacity-weighted aggregates of individual utilization rates; (2) the annual aggregate capacity is derived from the corresponding production and utilization aggregates; (3) the monthly capacity aggregate is obtained by interpolating with a Fisher index of its constituent monthly capacity series. Utilization rates for the individual series and aggregates are calculated by dividing the pertinent monthly production index by the related capacity index.

Consistency. A major aim is that the Federal Reserve utilization rates be consistent over time so that, for example, a rate of 85 percent means about the same degree of tightness that it meant in the past. A major task for the Federal Reserve in developing reasonable and consistent time series of capacity and utilization is dealing with inconsistencies between the movements of the industrial production index and the survey-based utilization rates. The McGraw-Hill/DRI Survey, now discontinued, was the primary source of manufacturing utilization rates for many years. This survey of large companies reported, on average, higher utilization rates than those reported by establishments covered by the annual *Survey of Plant Capacity* (the primary source of factory operating rates through 2006, after which it was discontinued) for the fourteen years they overlapped. Adjustments have been made to keep the industry utilization rates currently reported by the Federal Reserve (now based on the QSPC) roughly in line with rates formerly reported by McGraw-Hill. As a consequence, the rates reported by the Federal Reserve tend to be higher than the rates reported in the Census utilization surveys.

Perspective. Over the 1972–2024 period, the average total industry utilization rate was 79.5 percent; for manufacturing, the average factory operating rate was 78.2 percent. Industrial plants usually operate at capacity utilization rates that are well below 100 percent: none of the broad aggregates has ever reached 100 percent. For total manufacturing, utilization rates have exceeded 90 percent only in wartime. The highs and lows in capacity utilization are specific to each series and do not all occur in the same month.

References and Release Dates

References. The release for the annual revision that was published on November 24, 2025, is available on the Board's website (**www.federalreserve.gov/releases/g17/revisions/Current/DefaultRev.htm**). A summary of the annual revision that incorporated back to 1972 production and capacity indexes reclassified according to the North American Industry Classification System is available in an article in the *Federal Reserve Bulletin*, vol. 89 (April 2003), pp. 151–176. A description of the aggregation methods for industrial production and capacity utilization is included in an article in the *Federal Reserve Bulletin*, vol. 83 (February 1997), pp. 67–92. The Federal Reserve methodology for constructing industry-level measures of capital is detailed in "Capital Stock Estimates for Manufacturing Industries: Methods and Data" by Mike Mohr and Charles Gilbert (1996), which can be obtained at **www.federalreserve.gov/releases/g17/CapitalStockDocLatest.pdf.**

Industrial Production—1986 Edition contains a more detailed description of the other methods used to compile the industrial production index, plus a history of its development, a glossary of terms, and a bibliography. The major revisions to the IP indexes and capacity utilization since 1990 have been described in the *Federal Reserve Bulletin* (April 1990, June 1990, June 1993, March 1994, January 1995, January 1996, February 1997, February 1998, January 1999, March 2000, March 2001, March 2002, April 2003, Winter 2004, Winter 2005, March 2006, May 2007, August 2008, August 2009) or in online staff studies (www.federalreserve.gov/releases/g17/articles/rev2010/industrial10.pdf, www.federalreserve.gov/releases/g17/articles/rev2012/industrial12.pdf, www.federalreserve.gov/releases/g17/articles/rev2013/industrial13.pdf).

Release Schedule

The G.17 release on Industrial Production and Capacity Utilization will be issued on the following dates. The monthly releases are issued at 9:15 a.m. The annual revision is issued at noon.

2025: January 17, February 14, March 18, April 16, May 15, June 17, July 16, August 15, September 16, November 24 (annual revision), December 3 (delayed from October 17), and December 23 (delayed from November 18 and December 16).

2026: January 16, February 18, March 16, April 16, May 15, June 15, July 17, August 18, September 18, October 16, November 17, and December 16.

This release schedule is available on the Board's website at **http://www.federalreserve.gov/releases/g17**.