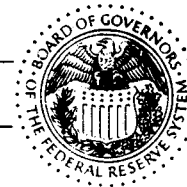


FEDERAL RESERVE statistical release



G.3 (402)

For Immediate release

CAPACITY UTILIZATION

December 16, 1985

Manufacturing, Mining, Utilities, and Industrial Materials

Capacity utilization in manufacturing, mining, and utilities rose 0.2 percentage point in November to 80.1 percent after a 0.5 percentage point drop in October. The operating rates for both manufacturing and utilities also rose 0.2 percentage point in November while utilization in mining fell 0.4 percentage point. Utilization in total industry is now 1.6 percentage points below its 1967-84 average.

The overall operating rate increase in November for manufacturing was composed of a 0.4 percentage point increase for durable manufacturing and a slight decline for nondurables. Large operating rate increases came in motor vehicles and parts, aerospace and miscellaneous transportation equipment, and primary metals. The utilization rate for primary metals industries, while still below its 1967-84 average, rose to its highest level since September 1981. The operating rate for the electrical machinery industry has stabilized since September and was 70.9 percent in November. Utilization in this industry, which includes semiconductor manufacturers, had fallen nearly 10 percentage points since the end of 1984.

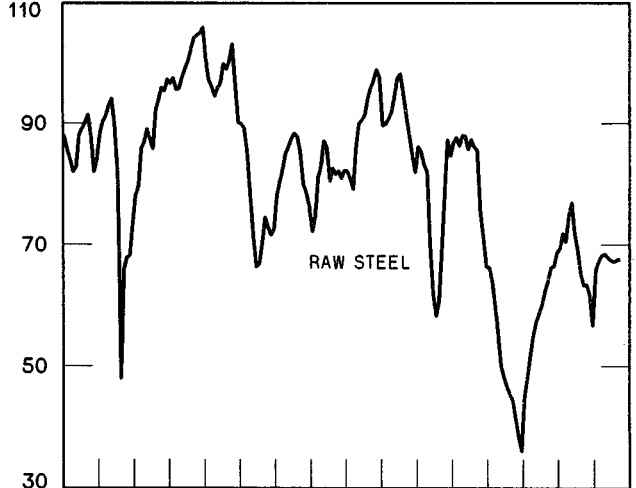
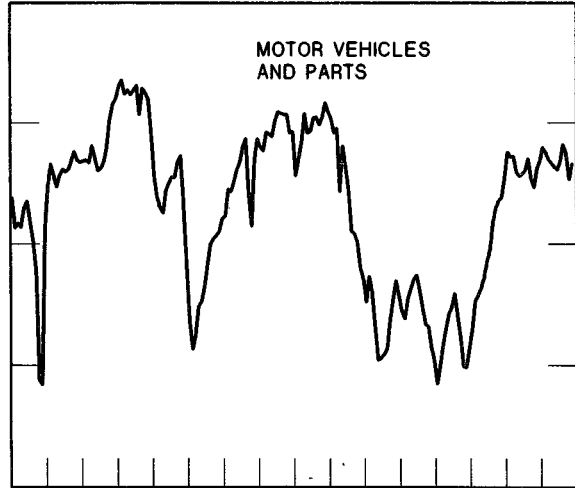
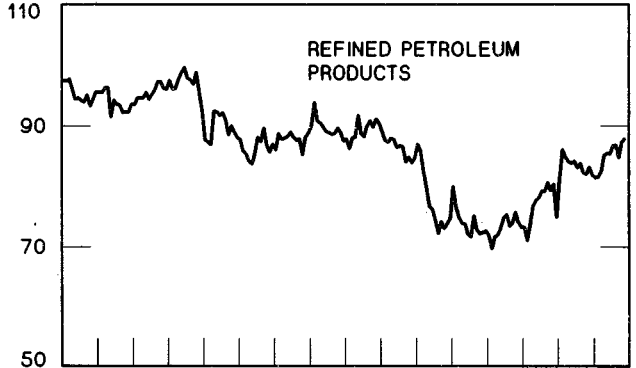
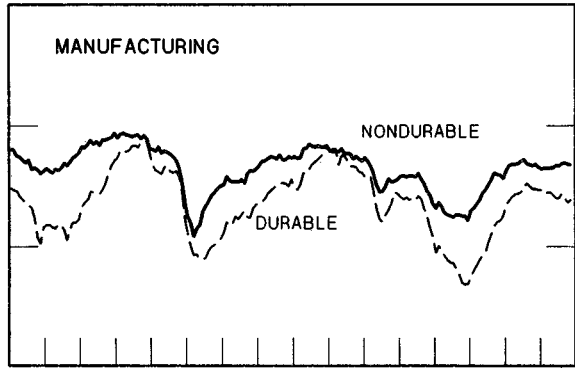
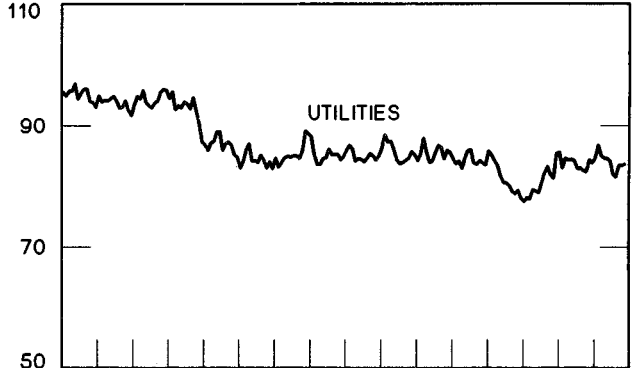
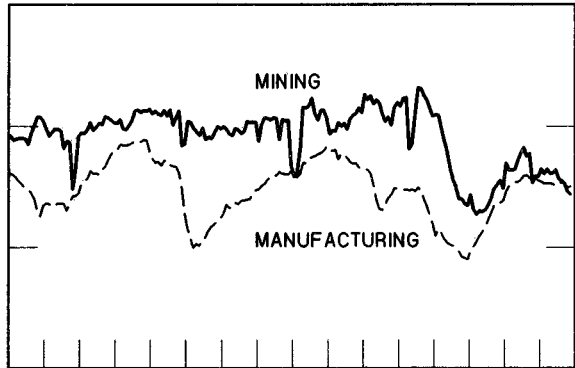
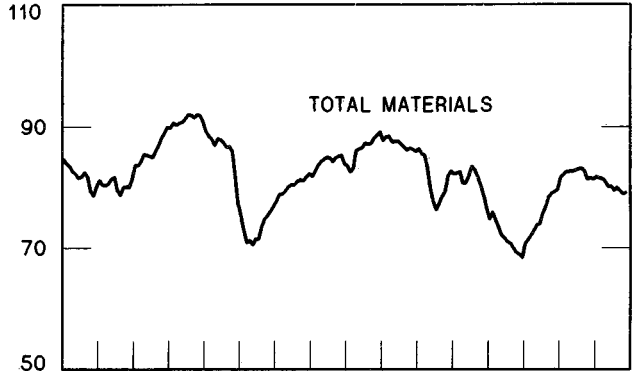
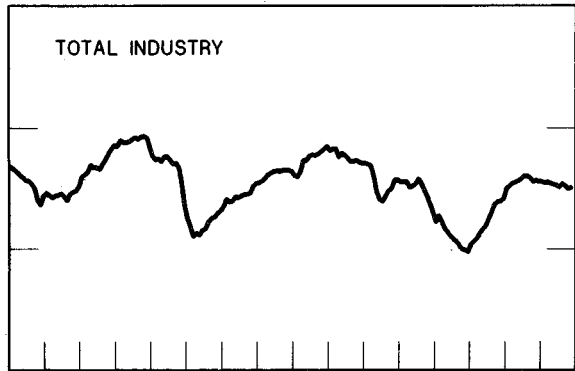
Capacity utilization in total industrial materials went up 0.2 percentage point in November to 79.1 percent. Utilization in both durable goods materials and energy materials industries moved up while nondurable goods materials utilization was unchanged. The operating rate for metal materials industries rose 1.3 percentage points in November after gaining 2.1 percentage points in October.

Capacity Utilization: Summary

Percent of capacity, seasonally adjusted

Series	1973 High	1975 Low	1978 -80 High	1982 Low	1967 -84 Avg.	1985			
						AUG	SEP	OCT	NOV
Total Industry	88.6	72.1	86.9	69.5	81.7	80.7	80.4	79.9	80.1
Manufacturing	87.7	69.9	86.5	68.0	80.7	80.7	80.3	79.8	80.0
Durable	87.4	67.9	86.3	63.7	78.8	78.7	77.9	77.3	77.7
Nondurable	88.8	71.8	87.0	74.4	83.5	83.7	83.8	83.6	83.5
Mining	92.8	87.8	95.2	76.9	88.0	80.9	80.4	79.1	78.7
Utilities	95.6	82.9	88.5	78.0	88.1	81.5	83.4	83.4	83.6
Industrial Materials	92.0	70.5	89.1	68.4	82.7	79.9	79.4	78.9	79.1

SEASONALLY ADJUSTED, PERCENT



1970 1973 1976 1979 1982 1985

1970 1973 1976 1979 1982 1985

INDUSTRIAL MATERIALS

Table 3

Capacity Utilization

Monthly, seasonally adjusted, percent of capacity

Series	1973	1975	1978	1982	1967	1984	1985									
	High	Low	-80 High	Low	-84 Avg.	NOV	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	
Materials Industrial	92.0	70.5	89.1	68.4	82.7	81.5	81.4	80.9	80.1	80.1	79.5	79.9	79.4	78.9	79.1	
Durable goods materials	91.8	64.4	89.8	60.9	79.5	80.2	78.9	78.3	76.6	76.5	75.8	76.6	75.4	75.0	75.3	
Metal materials	99.2	67.1	93.6	45.7	78.9	68.6	69.8	69.9	66.2	69.0	66.4	69.4	67.3	69.4	70.7	
Raw steel	106.0	66.4	98.9	36.1	81.9	61.6	68.2	68.4	67.9	67.4	67.2	67.4	67.6	67.4		
Aluminum	95.7	73.0	97.4	58.8	88.9	80.3	74.2	73.6	72.9	72.0	71.0	70.5	70.3	68.5		
Nondurable goods materials	91.1	66.7	88.1	70.6	83.3	80.9	80.2	80.2	80.8	81.0	81.7	82.1	82.8	82.3	82.3	
Textile, paper, and chemical materials	92.8	64.8	89.4	68.6	83.7	81.1	81.4	80.7	80.9	81.4	82.7	82.8	83.6	82.9	83.0	
Pulp and paper materials	98.4	70.6	97.3	79.9	91.3	92.5	92.1	89.1	88.8	90.5	91.7	90.1	90.7	88.5		
Chemical materials	92.5	64.4	87.9	63.3	80.9	78.8	79.5	79.2	79.5	79.2	80.1	79.8	81.2	81.1		
Energy materials	94.6	86.9	94.0	82.2	89.9	84.8	88.4	87.6	87.5	87.3	85.8	85.1	85.2	84.5	84.7	

Table 4

Output, Capacity, and Capacity Utilization

Quarterly, seasonally adjusted

Series	OUTPUT					CAPACITY					UTILIZATION				
	1984		1985			1984		1985			1984		1985		
	Q3	Q4	Q1	Q2	Q3	Q3	Q4	Q1	Q2	Q3	Q3	Q4	Q1	Q2	Q3
Materials Industrial	116.0	114.5	115.4	114.5	114.1	139.8	140.7	141.6	142.5	143.4	83.0	81.4	81.5	80.4	79.6
Durable goods materials	124.0	123.7	123.6	121.4	120.7	153.1	154.4	155.9	157.4	158.9	81.0	80.1	79.3	77.1	76.0
Metal materials	82.0	80.4	80.6	80.2	79.4	118.8	117.8	117.3	117.3	117.3	69.0	68.2	68.7	68.4	67.7
Raw steel	70.7	64.1	70.4	71.2	70.7	107.6	105.8	104.9	104.9	104.8	65.7	60.6	67.1	67.9	67.4
Aluminum	99.1	95.9	90.9	86.4	83.5	119.3	119.0	118.8	118.6	118.3	83.0	80.6	76.5	72.9	70.6
Nondurable goods materials	111.6	110.9	110.9	111.2	113.6	136.3	136.8	137.3	137.8	138.2	81.9	81.0	80.7	80.7	82.2
Textile, paper and chemical materials	112.2	110.7	111.6	111.0	114.1	135.7	136.2	136.7	137.0	137.4	82.7	81.3	81.7	81.0	83.0
Pulp and paper materials	127.7	126.2	126.3	121.8	123.8	133.7	135.3	136.1	136.2	136.3	95.5	93.3	92.8	89.4	90.8
Chemical materials	110.2	110.9	113.2	112.6	114.6	140.8	141.1	141.5	142.0	142.6	78.3	78.6	80.0	79.3	80.8
Energy materials	105.7	101.3	105.0	105.2	103.0	119.3	119.7	120.0	120.3	120.6	88.6	84.6	87.5	87.5	85.4

Definition. This release contains estimates of output, capacity, and capacity utilization for the nation's factories, mines, and electric and gas utilities. Output data are the Federal Reserve's seasonally adjusted indexes of industrial production, which express output as percentages of 1977 output. The capacity estimates are expressed as percentages of 1977 output as well. Capacity utilization percentages are calculated as ratios of production to capacity. The capacity indexes are based on a variety of data, including capacity data in physical units compiled by trade associations, private and government surveys of capacity growth and utilization rates, and estimates of capital stock growth. The concept of practical capacity is applied, which is defined as the greatest level of output that a plant can maintain within the framework of a realistic work pattern, taking account of normal downtime, and assuming sufficient availability of inputs to operate machinery and equipment in place. When the capacity indexes for individual industries are aggregated—for example to total manufacturing—no explicit account is taken of possible general equilibrium constraints such as emerging industry bottlenecks. Because of the large and heterogeneous database, changes in utilization rates may be more meaningful in the analysis of business conditions than any particular level of these rates.

Groupings. Estimates of capacity and industrial production for manufacturing industries are aggregated to primary processing and advanced processing industries, to durable and nondurable manufacturing industries, and to total manufacturing. The mining, manufacturing, and utilities estimates aggregate to the total index. Industrial materials are items produced and used as inputs by manufacturing plants, mines, and utilities. Industrial materials include many of the items included in the primary processing grouping of manufacturing, as well as some of the output of the advanced processing industries, mines, and utilities—such as iron ore, crude oil, semi-conductors, and electricity sold to industry.

Perspective. The historical highs and lows in capacity utilization shown in the tables above are specific to each series and did not all occur in the same month. 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 mining, manufacturing, and utilities as a whole, and for total manufacturing, utilization rates as high as 90 percent have been exceeded only in wartime.

Revisions. The first estimates for a month are published about the 17th of the following month. These estimates may revise in each of the next three months as new data become available. After the fourth month no further revisions are undertaken until an annual or benchmark revision. The median of the revisions in the total manufacturing utilization rate between the first and fourth estimate is 0.3 of a percentage point; that is, in about half of the cases, the absolute value of the revision from the first to the fourth estimate is less than 0.3 of a percentage point.

Sources. The basic methodology used to estimate the series is discussed in "Revised Federal Reserve Rates of Capacity Utilization", *Federal Reserve Bulletin*, October 1985. Revised data from 1948-84 are included in the statistical supplement to the July 1985 capacity utilization release, which may be obtained from Publications Services, Board of Governors of the Federal Reserve System, Washington, D.C. 20551.

Rounding. Utilization rates are calculated from unrounded capacity and production indexes. Aggregates are derived from unrounded detailed components.

Release schedule for 1986. Approximately 11 a.m. on January 17, February 18, March 17, April 16, May 16, June 16, July 16, August 18, September 17, October 17, November 17, and December 17.