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# FEDERAL RESERVE

## statistical release

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### CAPACITY UTILIZATION: MANUFACTURING AND MATERIALS

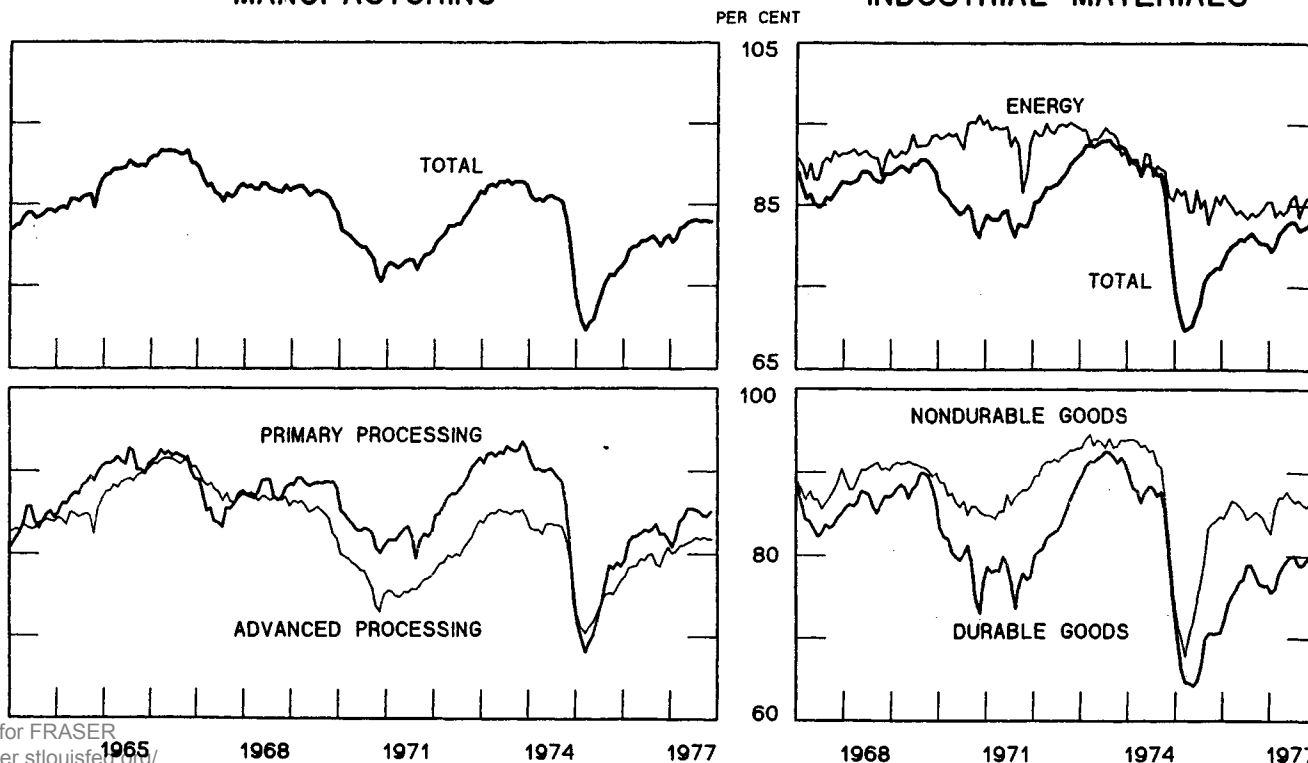
November 1977

Capacity utilization in manufacturing was unchanged in November at an estimated 82.9 per cent; this is about the same as in each of the previous six months. Utilization of capacity in primary processing industries increased moderately in November to a rate close to those at mid-year. This rise reflected rebounds in production of primary and fabricated metals. Utilization rates of advanced processing industries on average changed little in October; production declines in transportation equipment and instruments were more than offset by small increases in other industries.

Materials capacity utilization rose moderately in November, following a similar rise in October. At 82.9 per cent the rate was near its 1977 high, but still about 2 percentage points below the average during the 1967 to 1976 period. Utilization rates for both durable-goods and nondurable-goods materials rose moderately in November. In October the average utilization rate for durable goods materials producers had risen sharply, while that for producers of nondurable goods materials had declined.

#### MANUFACTURING

#### INDUSTRIAL MATERIALS



# OUTPUT, CAPACITY AND CAPACITY UTILIZATION

Output and Capacity are Percentages of 1967 Output; Capacity Utilization is a Per Cent of Capacity.

## Manufacturing

| SERIES               | MONTHLY CAPACITY UTILIZATION |             |              |       |              |             |       |           |       |       |             |      |           |      |      |
|----------------------|------------------------------|-------------|--------------|-------|--------------|-------------|-------|-----------|-------|-------|-------------|------|-----------|------|------|
|                      | 1973<br>HIGH                 | 1975<br>LOW | 1976<br>NOV. | DEC.  | 1977<br>JAN. | FEB.        | MAR.  | APR.      | MAY   | JUNE  | JULY        | AUG. | SEP.      | OCT. | NOV. |
| MANUFACTURING, TOTAL | 88.0                         | 69.6        | 80.8         | 81.2  | 80.4         | 80.9        | 82.1  | 82.3      | 82.8  | 83.0  | 83.1        | 82.9 | 83.0      | 82.9 | 82.9 |
| PRIMARY PROCESSING   | 93.6                         | 68.1        | 82.5         | 81.8  | 80.9         | 82.0        | 84.0  | 84.4      | 85.5  | 85.5  | 85.3        | 85.1 | 84.6      | 84.6 | 85.2 |
| ADVANCED PROCESSING  | 85.4                         | 70.4        | 79.8         | 80.8  | 80.1         | 80.3        | 81.0  | 81.1      | 81.4  | 81.6  | 82.0        | 81.8 | 82.0      | 81.8 | 81.7 |
|                      | OUTPUT                       |             |              |       |              | CAPACITY    |       |           |       |       | UTILIZATION |      |           |      |      |
|                      | 1976<br>III                  | IV          | 1977<br>I    | II    | III          | 1976<br>III | IV    | 1977<br>I | II    | III   | 1976<br>III | IV   | 1977<br>I | II   | III  |
| MANUFACTURING, TOTAL | 130.8                        | 131.2       | 133.1        | 136.9 | 138.7        | 161.9       | 162.8 | 164.0     | 165.6 | 167.1 | 80.8        | 80.6 | 81.2      | 82.7 | 83.0 |
| PRIMARY PROCESSING   | 139.3                        | 138.8       | 140.1        | 146.3 | 147.4        | 167.6       | 168.8 | 170.2     | 171.8 | 173.5 | 83.1        | 82.2 | 82.3      | 85.1 | 85.0 |
| ADVANCED PROCESSING  | 126.3                        | 127.2       | 129.3        | 132.0 | 134.2        | 158.9       | 159.6 | 160.7     | 162.2 | 163.8 | 79.5        | 79.7 | 80.5      | 81.4 | 81.9 |

## Industrial Materials

| SERIES                     | MONTHLY CAPACITY UTILIZATION |             |              |            |              |            |           |            |             |            |           |            |             |            |           |
|----------------------------|------------------------------|-------------|--------------|------------|--------------|------------|-----------|------------|-------------|------------|-----------|------------|-------------|------------|-----------|
|                            | 1973<br>HIGH                 | 1975<br>LOW | 1976<br>NOV. | DEC.       | 1977<br>JAN. | FEB.       | MAR.      | APR.       | MAY         | JUNE       | JULY      | AUG.       | SEP.        | OCT.       | NOV.      |
| MATERIALS, TOTAL           | 93.1                         | 69.7        | 80.3         | 80.2       | 79.4         | 80.2       | 81.6      | 82.1       | 82.7        | 83.0       | 82.9      | 82.0       | 82.2        | 82.5       | 82.9      |
| DURABLE GOODS MATERIALS    | 92.5                         | 64.3        | 76.4         | 76.5       | 75.6         | 76.0       | 77.8      | 78.7       | 79.4        | 79.9       | 80.0      | 78.9       | 78.9        | 79.5       | 80.0      |
| BASIC METAL MATERIALS      | 97.7                         | 66.1        | 73.1         | 72.5       | 73.7         | 72.9       | 78.4      | 79.3       | 81.2        | 80.2       | 77.6      | 74.8       | 73.4        | 75.5       |           |
| NONDURABLE GOODS MATERIALS | 94.6                         | 67.8        | 84.6         | 83.5       | 82.7         | 85.7       | 87.0      | 87.0       | 87.7        | 87.0       | 86.4      | 86.7       | 86.2        | 85.9       | 86.4      |
| TEX., PAPER, & CHEM. MAT.  | 94.5                         | 65.5        | 83.2         | 82.4       | 81.5         | 83.8       | 85.9      | 86.0       | 86.7        | 86.1       | 85.1      | 85.3       | 85.1        | 84.7       | 84.9      |
| TEXTILE MATERIALS          | 94.4                         | 58.0        | 78.2         | 80.6       | 78.7         | 77.7       | 79.9      | 78.8       | 78.8        | 76.7       | 77.4      | 78.7       | 80.5        | 81.3       |           |
| PAPER MATERIALS            | 100.5                        | 71.8        | 88.6         | 86.1       | 85.9         | 89.6       | 89.7      | 88.3       | 90.7        | 89.2       | 89.0      | 89.7       | 90.3        | 89.4       |           |
| CHEMICAL MATERIALS         | 93.8                         | 64.7        | 83.3         | 81.8       | 81.3         | 84.0       | 86.6      | 87.5       | 87.9        | 87.8       | 86.4      | 85.9       | 85.1        | 84.4       |           |
| ENERGY MATERIALS           | 94.6                         | 82.7        | 84.7         | 85.5       | 85.5         | 83.7       | 84.4      | 83.9       | 84.5        | 85.8       | 86.3      | 83.6       | 85.1        | 86.0       |           |
|                            | OUTPUT                       |             |              |            | CAPACITY     |            |           |            | UTILIZATION |            |           |            |             |            |           |
|                            | 1976<br>III                  | 1977<br>IV  | 1976<br>I    | 1977<br>II | 1976<br>III  | 1977<br>IV | 1976<br>I | 1977<br>II | 1976<br>III | 1977<br>IV | 1976<br>I | 1977<br>II | 1976<br>III | 1977<br>IV | 1976<br>I |
| MATERIALS, TOTAL           | 132.5                        | 131.9       | 133.1        | 137.7      | 138.2        | 163.1      | 164.3     | 165.5      | 166.6       | 167.8      | 81.2      | 80.3       | 80.4        | 82.6       | 82.4      |
| DURABLE GOODS MATERIALS    | 130.8                        | 128.4       | 129.2        | 135.1      | 136.0        | 166.7      | 167.8     | 169.0      | 170.3       | 171.6      | 78.4      | 76.5       | 76.5        | 79.4       | 79.2      |
| BASIC METAL MATERIALS      | 117.4                        | 107.4       | 108.6        | 116.4      | 109.3        | 143.7      | 144.4     | 144.8      | 145.1       | 145.3      | 81.7      | 74.4       | 75.0        | 80.2       | 75.2      |
| NONDURABLE GOODS MATERIALS | 146.3                        | 146.9       | 149.5        | 154.6      | 154.6        | 172.5      | 174.1     | 175.6      | 177.2       | 178.8      | 84.8      | 84.4       | 85.1        | 87.2       | 86.4      |
| TEX., PAPER, & CHEM. MAT.  | 150.8                        | 151.4       | 153.9        | 159.9      | 159.4        | 180.1      | 182.0     | 183.6      | 185.4       | 187.1      | 83.7      | 83.2       | 83.8        | 86.3       | 85.2      |
| TEXTILE MATERIALS          | 115.1                        | 112.1       | 111.3        | 110.9      | 112.4        | 139.8      | 140.6     | 141.4      | 141.9       | 142.5      | 82.4      | 79.7       | 78.7        | 78.1       | 78.9      |
| PAPER MATERIALS            | 130.8                        | 130.2       | 131.7        | 134.3      | 135.7        | 146.7      | 147.9     | 148.9      | 150.1       | 151.3      | 89.2      | 88.1       | 88.4        | 89.5       | 89.7      |
| CHEMICAL MATERIALS         | 174.4                        | 177.3       | 181.6        | 191.8      | 189.8        | 211.2      | 213.7     | 216.2      | 218.7       | 221.2      | 82.6      | 83.0       | 84.0        | 87.7       | 85.8      |
| ENERGY MATERIALS           | 119.6                        | 122.0       | 122.0        | 122.6      | 123.4        | 142.7      | 143.9     | 144.3      | 144.7       | 145.2      | 83.8      | 84.8       | 84.5        | 84.8       | 85.0      |

NOTE: ESTIMATES OF ACTUAL OUTPUT AND CAPACITY OUTPUT ARE BOTH EXPRESSED AS PERCENTAGES OF 1967 ACTUAL OUTPUT. ESTIMATES OF CAPACITY UTILIZATION IN PER CENT ARE CALCULATED AS RATIOS OF (1) THE INDEXES OF INDUSTRIAL PRODUCTION TO (2) THE CORRESPONDING INDEXES OF CAPACITY. INDUSTRIAL MATERIALS ARE THOSE CRUDE AND SEMIFINISHED PRODUCTS THAT ARE BOTH PRODUCED AND USED AS INPUTS BY INDUSTRIAL ESTABLISHMENTS; THE INDUSTRIAL MATERIALS INCLUDE MOST OF THE COMPONENTS OF THE PRIMARY PROCESSING GROUPING OF MANUFACTURING AS WELL AS THE INPUTS SUPPLIED TO THE INDUSTRIAL SECTOR BY MINES AND UTILITIES—SUCH AS IRON ORE, CRUDE OIL, AND INDUSTRIAL ELECTRICITY. THE 1973 HIGHS (AND ALSO 1975 LOWS) IN CAPACITY UTILIZATION, SHOWN IN THE TABLES ABOVE, ARE SPECIFIC TO EACH SERIES AND MAY OCCUR IN DIFFERENT MONTHS.

BUSINESSES USUALLY OPERATE AT CAPACITY UTILIZATION RATES THAT ARE WELL BELOW 100 PER CENT; NONE OF THE BROAD AGGREGATE SERIES HAS EVER INDICATED A 100 PER CENT USE OF CAPACITY. CAPACITY UTILIZATION RATES AVERAGED ABOUT 83 PER CENT FOR MANUFACTURING FROM 1955 THROUGH 1975, AND ABOUT 86 PER CENT FOR INDUSTRIAL MATERIALS FOR 1967 THROUGH 1975. IN MANUFACTURING AS A WHOLE, UTILIZATION RATES AS HIGH AS 90 PER CENT HAVE BEEN EXCEEDED ONLY IN WARTIME. THE PEAK RATES OF UTILIZATION IN 1973 WERE ASSOCIATED WITH SIGNIFICANT UPWARD PRESSURES ON PRICES.

THE CAPACITY UTILIZATION ESTIMATES ARE DESCRIBED, AND HISTORICAL DATA ARE PROVIDED, IN THE NOVEMBER 1976 ISSUE OF THE FEDERAL RESERVE BULLETIN. THE PRODUCTION FIGURES ARE DESCRIBED IN THE JUNE 1976 ISSUE OF THE BULLETIN; CURRENT ESTIMATES ARE PUBLISHED IN THE FEDERAL RESERVE STATISTICAL RELEASE, INDUSTRIAL PRODUCTION, 6.12.3.