Statistics
South Africa

## Manufacturing: production and sales

Co-operation between Statistics South Africa (Stats SA), the citizens of the country, the private sector and government institutions is essential for a successful statistical system. Without continued co-operation and goodwill, the timely release of relevant and reliable official statistics will not be possible.

Stats SA publishes approximately three hundred different releases each year. It is not economically viable to produce them in more than one of South Africa's eleven official languages. Since the releases are used extensively, not only locally, but also by international economic and social-scientific communities, Stats SA releases are published in English only.

This data in this statistical release adheres to the Special Data Dissemination Standard (SDDS) of the International Monetary Fund (IMF), which sets out standards on coverage, periodicity and timeliness of data; access by the public; integrity; and quality of the disseminated data.

Key figures as at the end of March 2003

| Actual estimates | $\begin{gathered} \text { March } \\ 2003 \end{gathered}$ | \% change <br> between <br> March 2002 <br> and <br> March 2003 | \% change between January 2002 to March 2002 and January 2003 to March 2003 |
| :---: | :---: | :---: | :---: |
| Physical volume |  |  |  |
| manufacturing production index ( $2000=100$ ) | 108,8 | -0,7 | +0,4 |
| Total value of of manufactured products ( R million) | 52746,8 | +7,1 | $+9,0$ |
| Seasonally adjusted estimates | $\begin{gathered} \text { March } \\ 2003 \end{gathered}$ | \% change between February 2003 and March 2003 | $\%$ change <br> between <br> October 2002 to <br> December 2002 <br> and <br> January 2003 to <br> March 2003 |
| Physical volume of manufacturing production index ( $2000=100$ ) | 104,7 | -1,7 | -1,9 |
| Total value of |  |  |  |
| of manufactured products ( R million) | 50824,4 | -2,1 | -2,0 |

## Key findings as at the end of March 2003

## MANUFACTURING PRODUCTION DECREASES

Manufacturing production for the first quarter of 2003 reflected a decrease of 1,9\% after seasonal adjustment compared with the fourth quarter of 2002. Lower production was reported by 16 of the 27 manufacturing divisions.

The major contributors to the decrease of $1,9 \%$ after seasonal adjustment in the total manufacturing production were the coke and refined petroleum products and machinery and equipment divisions (each contributing $-0,4$ of a percentage point to total manufacturing production), followed by the fabricated metal products and motor vehicles, trailers, parts and accessories (each contributing - 0,3 of a percentage point), 'other' non-metallic mineral products and 'other' transport equipment divisions (each contributing $-0,2$ of a percentage point) (cf. table A).


Source: Stats SA $\qquad$ Seasonally adjusted --- - Trend cycle

Table A - Contribution of the production by the different manufacturing divisions to the total manufacturing production (Base 2000=100)

| Manufacturing Divisions | \|Percentage contribution to the total manufacturing production in the base |year 2000 (Weights) | Average  <br> seasonally  <br> adjusted  <br> production  <br> index for  <br> the three  <br> months  <br> January 2003 <br> to  <br> March 2003 | ```Quarterly percentage change (January }200 to March 2003 compared with the preceding three months)``` | ```\|Contribution (percentage points) to the seaso- |nally adjus- ted quarterly percentage change in total manu- facturing |production 1/``` |
| :---: | :---: | :---: | :---: | :---: |
| Food and food products | 10,7 | 101, 7 | +1,1 | +0, 1 |
| Beverages | 4,6 | 114,2 | +1, 3 | +0, 1 |
| Total textiles | 2,9 | 107,1 | -2,8 | -0,1 |
| Total wearing apparel | 3,6 | 105,4 | +1, 8 | +0, 1 |
| Tanning and dressing of leather | 0,4 | 84,7 | -11,0 | -0,1 |
| Footwear | 0,9 | 77,5 | -11,0 | -0,1 |
| Wood and products of wood | 1,9 | 116,2 | +1, 0 | +0, 0 |
| Paper and paper products | 5,3 | 99, 3 | +1,7 | +0, 1 |
| Total publishing and printing | 4,1 | 94,5 | +1,1 | +0, 1 |
| Coke and refined petroleum products | 4,2 | 93,1 | -8,5 | -0,4 |
| Basic chemicals | 4,5 | 110,9 | -0,4 | -0,0 |
| Other chemical products | 6,2 | 110,4 | -0,1 | -0,0 |
| Rubber products | 1,4 | 100,1 | -8,2 | -0,1 |
| Plastic products | 3,1 | 120,4 | -3, 1 | -0,1 |
| Glass and glass products Other non-metallic mineral | 1,0 | 116,6 | +0, 7 | +0, 0 |
| Other non-metallic mineral products | 3,5 | 102,1 | -7,2 | -0,2 |
| Basic iron and steel products | 7,6 | 114,2 | +1,9 | +0, 1 |
| Basic precious and non-ferrous metal products | 3,2 | 100,0 | +0,3 | +0, 0 |
| Fabricated metal products | 7,0 | 116,4 | -3,9 | -0, 3 |
| Total machinery and equipment | 5,8 | 113,3 | -7,5 | -0,4 |
| Electrical machinery, apparatus | 3,4 | 102,7 | -2,1 | -0,1 |
| Radio, television and communication apparatus | 1,0 | 80,8 | -0,4 | -0,0 |
| Professional equipment | 0,5 | 132,7 | +7,9 | +0, 0 |
| Motor vehicles; trailers; parts and accessories | 8,0 | 104,8 | -3, 6 | -0,3 |
| Other transport equipment | 1,0 | 100, 9 | -15,6 | -0,2 |
| Furniture | 1,6 | 102,8 | -7, 6 | -0,1 |
| Other manufacturing divisions | 2,6 | 101, 3 | +0, 3 | +0,0 |
| Total | 100,0 | 106,3 | -1,9 | -1,9 |

1/ The contribution is calculated by multiplying the quarterly percentage change of each manufacturing division with its corresponding weight in the base year, divided by 100.

Following international practice of re-basing indices every five years, the base year of the index of physical volume of manufacturing production has been changed from $1995=100$ to $2000=100$ with effect from the December 2002 statistical release P3041.2.

The base period is the reference point of an index and is usually set at 100 . Base periods have to be chosen carefully because different results can be obtained with different base periods. The following are important criteria for selecting base periods:

- The base period must be recent to ensure that as many as possible of the components of the index are included in both the base period and the current period. The more recent the base period, the more comparable the current indices are with those of the base period.
- Due to a large number of indices being published regularly, it is useful if they all have a common base period. The internationally accepted current base period is 2000 .

To compare different indices or to compare the movements in a specific index over a period, it often becomes necessary to shift the base period of an index.

Each index was transformed to the new base period by dividing each monthly index (base 1995=100) from January 1990, by the average annual index for the year 2000 and multiplying the result by 100 .

The re-basing of indices was done on all the major groups of manufacturing, retaining the current weights based on the 1996 Census of Manufacturing. The average indices of the major groups for the year 2000 (cf. table E) were equated to 100 . The obtained conversion factor of each major group was implemented to re-base the monthly indices since January 1990 per major group.

## SALES OF MANUFACTURED PRODUCTS DECREASE

The total value of sales of manufactured products at current prices for the first quarter of 2003 reflected a decrease of $2,0 \%$ (-R3 144million) after seasonal adjustment compared with the fourth quarter of 2002. Lower manufacturing sales were reported by 20 of the 27 manufacturing divisions during this period. However, the actual total value of sales of manufactured products at current prices for the first quarter of 2003 reflected an increase of 9,0\% (+R12 241 million) compared with the first quarter of 2002. Higher manufacturing sales were reported by 24 of the 27 manufacturing divisions.

The decrease of $2,0 \%$ after seasonal adjustment in the total value of sales of manufactured products at current prices for the first quarter of 2003 compared with fourth quarter of 2002 was mainly due to large decreases reported by the basic precious and non-ferrous metal products ( $-10,5 \%$ or -R586 million), coke and refined petroleum products ( $-6,9 \%$ or - R781 million), motor vehicles, trailers, parts and accessories ( $-4,8 \%$ or -R 983 million) and fabricated metal products ( $-4,1 \%$ or - R370 million) divisions (cf. table B).

The major contributors to the increase of $9,0 \%$ in the actual value of sales of manufactured products at current prices for the first quarter of 2003 compared with the first quarter of 2002 were the basic iron and steel products ( $+1,8$ percentage points or + R2 375 million), food and food products $(+1,6$ percentage points or + R2 130 million), fabricated metal products $(+0,7$ of a percentage point or + R945 million), beverage ( $+0,6$ of a percentage point or +R 854 million), 'other' chemical products $(+0,6$ of a percentage point or + R771 million), machinery and equipment $(+0,5$ of a percentage point or + R726 million) and motor vehicles, trailers, parts and accessories ( $+0,5$ of a percentage point or +R 657 million) divisions (cf. table C).

Table B - Contribution of the manufacturing divisions to the total value of seasonally adjusted sales of manufactured products

| Manufacturing <br> Divisions | $\|$Seasonally  <br> adjusted  <br> sales  <br> January 2003 <br> to  <br>   <br>   <br>   <br> Rarch 2003 <br>   | Percentage chamge between October 2002 to December 2002 and January 2003 to March 2003 | $\|$Difference in <br> seasonally <br> adjusted <br> sales of <br> manufacturing <br> divisions <br> between <br> October <br> to <br> December <br> and <br> $\left\|\begin{array}{cc}\text { January } & 2002 \\ \text { to } & 2003 \\ \text { March } & 2003 \\ \text { R'000 }\end{array}\right\|$ |
| :---: | :---: | :---: | :---: |
| Food and food products | 21470112 | -0, 5 | 106379 |
| Beverages | 7029519 | -0,4 | 28603 |
| Total textiles | 3383410 | -3,4 | 119938 |
| Total Wearing apparel | 3406399 | +1, 0 | 35346 |
| Tanning and dressing of leather | 794857 | -2, 3 | 19104 |
| Footwear | 581267 | -3,7 | 22205 |
| Wood and products of wood | 3529695 | +4, 6 | 154310 |
| Paper and paper products | 7431062 | +1,2 | 88146 |
| Total publishing and printing | 3521475 | -2,1 | 75441 |
| Coke and refined petroleum products | 10573862 | -6,9 | 781383 |
| Basic chemicals | 7485171 | -1, 6 | 123499 |
| Other chemical products | 9155704 | +1,4 | 128916 |
| Rubber products | 1627023 | -9, 0 | 160571 |
| Plastic products | 3965668 | -0,9 | 35631 |
| Glass and glass products | 846397 | +2,0 | 16829 |
| Other non-metallic mineral products | 3773452 | -3, 0 | 116959 |
| Basic iron and steel products | 13373312 | +6,4 | 800424 |
| Basic precious and non-ferrous metal products | 4975682 | -10,5 | 586371 |
| Fabricated metal products | 8746823 | -4, 1 | 370012 |
| Total machinery and equipment | 6862802 | -2,6 | 183464 |
| Electrical machinery, apparatus | 4246479 | -4, 8 | 214310 |
| Radio, television and communication apparatus | 1292013 | -2,1 | 27490 |
| Professional equipment | 540056 | +1,6 | 8621 |
| Motor vehicles; trailers; parts and accessories | 19433140 | -4,8 | 983472 |
| Other transport equipment | 986578 | -13,9 | 159731 |
| Furniture | 1840117 | -3, 0 | 57766 |
| Other manufacturing industries | 4303904 | -4,5 | 203952 |
| Total | 155175978 | -2,0 | 3143689 |

Table C - Contribution of the manufacturing divisions to total value of sales of manufactured products

| Manufacturing | Percentage contribution to total value of sales of manufactured products January 2002 to March 2002 | Percentage  <br> change  <br> between  <br> January 2002 <br> to  <br> March <br> and 2002 <br> January <br> to 2003 <br> March 2003 | Contribution (percentage points) to the percen- tage change in the total value of sales of manufactured products $1 /$ | Difference  <br> in sales of  <br> manufacturing  <br> divisions  <br> between  <br> January 2002 <br> to  <br> March 2002 <br> and  <br> January 2003 <br> to  <br> March 2003 <br> R'000   |
| :---: | :---: | :---: | :---: | :---: |
| Food and food products | 13, 3 | 11, 8 | 1,6 | 2129684 |
| Beverages | 4,5 | 14,1 | 0,6 | 854151 |
| Total textiles | 2,1 | 7,1 | 0,1 | 201577 |
| Total Wearing apparel | 1,9 | 19, 3 | 0,4 | 490359 |
| Tanning and dressing of leather\| | 0,5 | 7,3 | 0,0 | 52671 |
| Footwear | 0,3 | 9,0 | 0,0 | 38384 |
| Wood and products of wood | 2,0 | 21,4 | 0, 4 | 579520 |
| Paper and paper products | 5,1 | 3,8 | 0,2 | 268970 |
| Total publishing and printing | 2,2 | 11,5 | 0,3 | 348099 |
| Coke and refined petroleum products | 7,3 | 0,9 | 0,1 | 87748 |
| Basic chemicals | 5,3 | 0,7 | 0,0 | 47379 |
| Other chemical products | 5,9 | 9,6 | 0,6 | 771467 |
| Rubber products | 1,2 | -0, 3 | -0,0 | -4 588 |
| Plastic products | 2,4 | 15,6 | 0,4 | 512408 |
| Glass and glass products Other non-metallic mineral | 0,5 | 8,3 | 0,0 | 58127 |
| products | 2,3 | 12,5 | 0,3 | 386940 |
| Basic iron and steel products | 7,9 | 22, 2 | 1,8 | 2374595 |
| Basic precious and non-ferrous metal products | 3,4 | -3,0 | -0,1 | -138 701 |
| Fabricated metal products | 5,4 | 12,8 | 0,7 | 945282 |
| Total machinery and equipment | 4,3 | 12,3 | 0,5 | 726327 |
| Electrical machinery, apparatus | 2,8 | 8,0 | 0,2 | 303977 |
| Radio, television and communication apparatus | 0,8 | 30,9 | 0,2 | 336068 |
| Professional equipment | 0, 3 | 12,7 | 0, 0 | 59985 |
| Motor vehicles; trailers; parts and accessories | 13,3 | 3,6 | 0,5 | 656520 |
| Other transport equipment | 0,8 | -6,6 | -0,1 | -75 176 |
| Furniture | 1,1 | 5,5 | 0,1 | 79901 |
| Other manufacturing divisions | 3,0 | 3,7 | 0,1 | 149343 |
| Total | 100,0 | 9,0 | 9,0 | 12241017 |

1/ The contribution (percentage points) is calculated by multiplying the percentage change of each manufacturing division with the percentage contribution of the same division during corresponding period, divided by 100.


## Contents



## Notes

| Forthcoming issues | Issue | Expected release date |
| :--- | :--- | :--- |
|  | April 2003 | 10 June 2003 |
| May 2003 | 8 July 2003 |  |

## Additional information

## Explanatory notes

## Scope of the survey

## Classification

## Statistical unit

## Weighting

Re-basing
8

## Survey methodology and 9 design

1 Statistics South Africa (Stats SA) conducts a monthly sample survey of the manufacturing industry covering private manufacturing establishments (branches), public corporations and government establishments. This statistical release contains historical information regarding indices of the physical volume of manufacturing production, the total value of sales of manufactured products and unfilled orders, according to manufacturing divisions and major groups on a monthly basis.

2 In accordance with international practice, the indices have to be re-based every five years to a new base year. The indices in this statistical release have been calculated on the basis of $2000=100$. Both actual and seasonally adjusted figures are presented.

3 In order to improve timeliness, some information for the current month (March 2003) have been estimated due to late response. These estimates will be revised in the future statistical release(s) as soon as more up-to-date information is available.

4 This survey covers manufacturing establishments conducting activities regarding -

- the manufacturing, processing, making or packing of products;
- the slaughtering of animals, including poultry; and
- installation, assembly, completion, repair and related work.

5 The 1993 edition of the Standard Industrial Classification of all Economic Activities (SIC), Fifth Edition, Report No. 09-90-02, was used to classify the statistical units in the survey. The SIC is based on the 1990 International Standard Industrial Classification of all Economic Activities (ISIC) with suitable adaptations for local conditions. Statistics in this publication are presented at SIC division and major group level. Each statistical unit is classified to an industry which reflects the predominant activity of the establishment (branch).

6 The basic statistical unit for the collection of information is the manufacturing establishment. An establishment is the smallest economic unit that functions as a separate entity. Each statistical unit is classified to an industry (cf. paragraph 5).

7 A weight is calculated for every major group according to the value added of the relevant major group compared with the value added of the total manufacturing industry based on the 1991, 1993 and 1996 Censuses of Manufacturing. Weights between census years are fixed and are based on the results of the most recent Census of Manufacturing. The production indices of all the major groups are multiplied by the applicable weights and aggregated to reflect the total physical volume of manufacturing production index (cf. Table E for the fixed weights which were used for the three periods 1990 to 1992, 1993 to 1995 and 1996 to 2002.).

In accordance with international practice, the indices have to be re-based every five years to a new base year. The indices in this statistical release have been calculated on the basis of $2000=100$. The first results on this basis were published in December 2002 statistical release. Both actual and seasonally adjusted figures are presented.

The calculation of the monthly production indices is based on the value of products and articles manufactured, after the effect of price changes has been eliminated through deflation by using appropriate sub-indices of the Production Price Index (PPI). The value of the manufactured products is obtained from a monthly sample survey of manufacturing establishments in the private and public sectors.

10 The survey is collected by mail each month from a sample of approximately 2400 manufacturing establishments.

11 The above-mentioned measurement method in paragraph 8 was followed in 37 of the 45 major groups. On account of certain considerations more appropriate indicators were used for the eight remaining major groups namely grain mill products, tobacco products, coke and refined petroleum products, basic iron and steel products, basic precious and non-ferrous metal products, motor vehicles, bodies for motor vehicles and parts and accessories for motor vehicles. The volume indices for the major groups grain mill products, tobacco products, coke and refined petroleum products, basic iron and steel products, basic precious and non-ferrous metal products, motor vehicles, bodies for motor vehicles and parts and accessories for motor vehicles are calculated on the basis of physical quantities. This method based on physical quantities is applied by other international statistical agencies for petroleum products due to the results being more satisfactory (mainly due to these commodities being relatively homogeneous and the nature of the industry). For publication purposes, the major group tobacco products is included under 'Other' manufacturing industries.

## Sample design

## Benchmarking

12 The 1988 Census of Manufacturing provided the sampling frame for the selection of the monthly sample regarding manufacturing production and sales which was implemented as from January 1995. A stratified systematic sample design based on gross output was used. All statistical units were stratified by type of economic activity according to the Standard Industrial Classification of all Economic Activities (SIC) and measure of size, where measure of size was the total manufacturing gross output of the establishment. All large establishments (size category one cases) are completely enumerated. A sample was drawn from medium and small size establishments by systematically selecting establishments with equal probability.

13 The index of physical volume of manufacturing production as well as the total value of sales of manufactured products should provide an accurate reflection of the trend of activities of the relevant industry. The level of activities as measured by the monthly Manufacturing Production and Sales sample survey is based on information received from a sample of manufacturing establishments which is weighted according to the original sample design in order to represent the population of manufacturing establishments. It is necessary to adjust the level of activities as measured by the monthly sample survey to the level of activities as measured periodically by the Census of Manufacturing. This procedure, whereby the latest results of an economic census are used to compile more accurate level estimates for a certain year, is known as benchmarking. The results, due to benchmarking, were published in statistical releases P3041.3 (entitled Manufacturing statistics: Indices of the physical volume of manufacturing production, Base: 1995=100, January 1990 to September 1999) on 21 December 1999 and P3041.4 (entitled Manufacturing statistics: Value of sales, January 1990 to September 1999) on 8 December 1999.

14 The results of the 1991, 1993 and 1996 Censuses of Manufacturing and information obtained from the former TBVC states were used to adjust the level of the manufacturing production indices and the value of sales of manufactured products. The total value of output of the manufacturing major groups (which represents the total value of work done by the establishments in these major groups) as obtained from the manufacturing censuses, was deflated with appropriate sub-indices of the Production Price Index in order to calculate the real output. The latter served as benchmarks to verify or adjust the level of the monthly physical volume of manufacturing production indices. The level adjustments were done on the volume indices for January of the relevant census year (e.g. the 1996 census year covers the period 1 July 1995 to 30 June 1996 and therefore the benchmarking was done using the index of January 1996 as reference point). The motor vehicle major group is the only exception where the financial year for most of the establishments covered the period 1 January 1995 to 31 December 1995. The benchmarking was done using the physical volume of manufacturing production index for July 1995 as reference point.

## Production index for the total manufacturing industry

## Seasonal adjustment

Trend cycle

## Reliability of estimates

## Historical data

## Related publications

15 In order to calculate a production index for the total manufacturing industry, the production indices for the major groups are combined as follows:

A weight is calculated for every major group according to the value added of the relevant major group compared with the value added of the total manufacturing industry based on the 1991, 1993 and 1996 Censuses of Manufacturing. Weights between census years are fixed and are based on the results of the most recent Census of Manufacturing. The production indices of all the major groups are multiplied by the applicable weights and aggregated to reflect the total physical volume of manufacturing production index.

16 Seasonally adjusted estimates of all major groups are generated each month, using the X-11 Seasonal Adjustment Program developed by US Bureau of the Census Economic Research and Analyses Division, 1968. Seasonal adjustment is a means of removing the estimated effects of normal seasonal variation from the series so that the effects of other influences on the series can be more clearly recognised. Seasonal adjustment does not aim to remove irregular or non-seasonal influences which may be present in any particular month. Influences that are volatile or unsystematic can still make it difficult to interpret the movement of the series even after adjustment for seasonal variations. This means the month-to-month movements of seasonally adjusted estimates may not be reliable indicators of trend behaviour.

17 The trend is the long-term pattern or movement of a time series. The X-11 Seasonal Adjustment Program is used for smoothing seasonally adjusted estimates.

18 Estimates are subject to sampling and non-sampling errors. Figures for the latest month are preliminary.

19 More comprehensive detail on the method of calculation and historical data in respect of the production indices according to manufacturing major groups for the period January 1990 to November 2002 is available in statistical release P3041.3 (entitled Manufacturing statistics: Indices of the physical volume of manufacturing production, Base: 2000=100, January 1990 to November 2002.

20 More comprehensive detail on the method of calculation and historical data in respect of the value of sales for the period January 1990 to September 1999 was published on 8 December 1999 in statistical release P3041.4.

21 Users may also wish to refer to the following publications which are available from Stats SA -

- P3041.3-Manufacturing statistics: Indices of the physical volume of manufacturing production, Base: $2000=100$, January 1990 to November 2002.
- P3041.4 - Manufacturing statistics: Value of sales (divisions, major groups and subgroups), January 1990 to September 1999.
- Bulletin of Statistics.
- SA Statistics.
- P0441 - Gross Domestic Product.


## Rounding-off of figures

## Pre-release policy

22 In some cases Stats SA can also make available statistics which are not published. The statistics can be made available as a computer printout, diskette or CD. Generally a charge is made for providing unpublished statistics.

23 The figures in the tables have, where necessary, been rounded off to the nearest final digit shown. There may, therefore, be slight discrepancies between the sums of the constituent items and the totals shown.

24 Stats SA has adopted the confidential pre-release policy in respect of selected economic indicators and specific government departments. The policy accords with practice among leading statistical agencies. The statistical integrity of the indices and strict observance of the release time has been assured by the following procedure: in respect of this statistical release, an official representative from the Office of the President, the Office of the Deputy President, the Department of Trade and Industry, the Department of Finance and the South African Reserve Bank receive a copy of the release on a strictly confidential basis two hours in advance of the public issue.

25 Stats SA's pre-release policy may be inspected at its Website, www.statssa.gov.za.

| GDP | Gross Domestic Product |
| :--- | :--- |
| ISIC | International Standard Classification of all Economic Activities |
| PPI | Production Price Index |
| SIC | Standard Industrial Classification of all Economic Activities |
| SNA | System of National Accounts |
| Stats SA | Statistics South Africa |
| TBVC states | Relates to the former Transkei, Bophuthatswana, Venda and Ciskei <br> states |
| $1 /$ | Preliminary figures |
| $*$ | Revised figures |

## Technical notes

Response rates The response rate for the survey on manufacturing production and sales for March 2003 is $77,2 \%$. The response rates by manufacturing major division are tabulated in table D.

Table D - Response rates for March 2003

| Manufacturing major divisions | Sample <br> No. of establishments | \% <br> response |
| :--- | :---: | :---: |
|  |  |  |
| Food and food products | 306 | 74,5 |
| Beverages | 62 | 82,3 |
| Textile | 104 | 95,2 |
| Total wearing apparel | 125 | 82,4 |
| Tanning and dressing of leather | 24 | 87,5 |
| Footwear | 21 | 85,7 |
| Wood and products of wood | 110 | 64,5 |
| Paper and paper products | 92 | 78,3 |
| Total publishing and printing | 86 | 70,9 |
| Coke and refined petroleum products | 28 | 85,7 |
| Basic chemicals | 73 | 83,6 |
| Other chemical products | 107 | 73,8 |
| Rubber products | 21 | 76,2 |
| Plastic products | 92 | 72,8 |
| Glass and glass products | 12 | 83,3 |
| Other non-metallic mineral products | 126 | 86,5 |
| Basic iron and steel products | 39 | 89,7 |
| Basic precious and non-ferrous metal products | 22 | 81,8 |
| Fabricated metal products | 219 | 79,0 |
| Total machinery and equipment | 182 | 76,9 |
| Electrical machinery, apparatus | 77 | 85,7 |
| Radio, television and communication apparatus | 22 | 68,2 |
| Professional equipment | 25 | 80,0 |
| Motor vehicles; trailers; parts and accessories | 130 | 71,5 |
| Other transport equipment | 36 | 83,3 |
| Furniture | 70 | 57,1 |
| Other manufacturing industries | 79 | 62,0 |
| Total | 290 |  |

## Glossary

## Enterprise

## Establishment

Index of physical volume of manufacturing production

An enterprise (firm) is a legal entity consisting of one or more establishments. The establishments need not necessarily all be manufacturing establishments, but some may be classifiable as other industries of the economy, such as wholesale trade, retail trade, motor trade and construction.

An establishment is defined as an enterprise (firm), or part of an enterprise, that is situated at a single location and in which only a single (non-ancillary) productive activity is carried out or in which the principal productive activity accounts for most of the value added.

The index of physical volume of manufacturing production or a production index is a statistical measure of the change in the volume of production. The production index of a major group is the ratio between the volume of production of a major group in a given period and the volume of production of the same major group in the base period. The base period is 2000. The production in the base period is set at 100 .

An industry consists of a group of establishments engaged in the same or similar kinds of economic activity. Industries are defined in the System of National Accounts (SNA) in the same way as in the Standard Industrial Classification of all Economic Activities, Fifth Edition, Report No. 09-90-02 of January 1993 (SIC).

Intercensal period is the period between January of the one census year and January of the next census year.

Intermediate consumption includes -

- purchases and transfers-in of materials;
- payments to other establishments for work done;
- other direct factory costs;
- rent and leasing paid;
- head office charges;
- royalties, copyright, trade names and patent rights paid;
- advertising;
- insurance premiums;
- services; and
- secretarial and administrative fees.


## Output

Output is the aggregate value of goods manufactured and work done.
Output includes -

- sales and transfers-out of own manufactures, factory waste and stocks of factored
- goods;
- repairs;
- installation, erection and assembly;
- sundry trading revenue;
- sales of factored goods minus purchases of factored goods;
- rent and leasing received;
- royalties received;
- difference between opening value and closing value of work in progress, stocks of own manufactures and stocks of factored goods;
- head office charges; and
- other revenue.
- excise and customs duty paid.


## Value added

## Sales

## Weight

Value added is the value of output less intermediate consumption. It represents the value added to the cost of the materials used in the process of production.

Sales are the total value of sales and transfers-out of all own manufactured products/articles and the amounts received for installation, erection or assembly or other services rendered.

The weight of a major group is the ratio of the value added of a major group (i.e. output of a major group minus intermediate consumption) to the total value added of the manufacturing industry. The weight of a major group reflects the importance of the major group in the total manufacturing industry. The weights change over time due to quality changes, changes in relative prices, and changes in preference, etc. New weights need to be calculated from time to time.

Table 1 - Indices of the physical volume of manufacturing production: Total


[^0]Table 2 - Indices of the physical volume of manufacturing production according to manufacturing divisions and major groups


* Revised

1/ Preliminary

Table 3 - Value of sales of the manufacturing industry: Total (R'000)


[^1]Table 4 - Value of sales of manufactured products according to manufacturing divisions and major groups (R'000)


Table 5 - Value of unfilled orders according to selected manufacturing subgroups (R'000)


* Revised

1/ Preliminary

Table E - Weights and the average indices of physical volume of manufacturing production according to manufacturing
divisions and major groups before re-basing

| Manufacturing divisions and major groups |  |  |  | Base 1995 = 100 |
| :---: | :---: | :---: | :---: | :---: |
|  | Weights |  |  | Average indices for the year 2000 before re-basing |
|  | 1990-1992 | 1993-1995 | 1996-2002 |  |
| Food and food products | 10,97 | 12,33 | 10,71 | 99,1 |
| Meat, fish, fruit etc. | 2,93 | 3,20 | 2,83 | 111,7 |
| Dairy products | 1,40 | 1,68 | 1,36 | 89,4 |
| Grain mill products | 2,13 | 2,80 | 2,10 | 91,3 |
| Other food products | 4,52 | 4,65 | 4,41 | 97,6 |
| Beverages | 4,83 | 5,26 | 4,60 | 92,6 |
| Total textiles | 3,33 | 3,33 | 2,88 | 93,5 |
| Textiles | 2,09 | 2,03 | 1,69 | 84,6 |
| Other textile products | 1,24 | 1,30 | 1,19 | 106,2 |
| Total wearing apparel | 3,94 | 3,81 | 3,60 | 82,8 |
| Knitted, crocheted articles | 0,67 | 0,64 | 0,60 | 73,9 |
| Wearing apparel | 3,27 | 3,17 | 3,00 | 84,5 |
| Tanning and dressing of leather | 0,41 | 0,34 | 0,41 | 125,2 |
| Footwear | 1,15 | 1,10 | 0,93 | 65,6 |
| Wood and products of wood | 1,96 | 1,81 | 1,95 | 119,3 |
| Sawmilling and planning of wood | 0,98 | 0,82 | 0,77 | 104,8 |
| Products of wood | 0,97 | 0,99 | 1,17 | 128,8 |
| Paper and paper products | 4,58 | 4,73 | 5,32 | 105,3 |
| Total publishing and printing | 3,57 | 3,95 | 4,11 | 87,8 |
| Publishing | 1,15 | 1,41 | 1,48 | 97,8 |
| Printing, recorded media | 2,42 | 2,54 | 2,63 | 82,3 |
| Coke and refined petroleum products | 6,45 | 6,41 | 4,17 | 104,5 |
| Basic chemicals | 4,57 | 3,19 | 4,47 | 132,0 |
| Other chemical products | 5,97 | 6,61 | 6,17 | 101,8 |
| Rubber products | 1,59 | 1,52 | 1,36 | 98,7 |
| Plastic products | 2,58 | 2,85 | 3,08 | 89,7 |
| Glass and glass products | 1,15 | 0,99 | 1,00 | 88,5 |
| Other non-metallic mineral products | 3,67 | 3,58 | 3,50 | 97,6 |
| Basic iron and steel products | 6,90 | 6,49 | 7,56 | 116,3 |
| Basic precious and non-ferrous metal products | 2,15 | 2,19 | 3,25 | 175,6 |
| Fabricated metal products | 7,53 | 6,84 | 7,03 | 103,4 |
| Structural metal products | 2,84 | 2,04 | 2,39 | 90,5 |
| Other fabricated metal products | 4,69 | 4,80 | 4,65 | 110,0 |
| Total machinery and equipment | 6,31 | 6,06 | 5,78 | 99,7 |
| General purpose machinery | 2,58 | 2,59 | 2,50 | 110,6 |
| Special purpose machinery | 3,14 | 2,82 | 2,89 | 87,8 |
| Household appliances | 0,60 | 0,65 | 0,39 | 117,0 |
| Electrical machinery, apparatus | 3,36 | 3,49 | 3,45 | 102,1 |
| Electric motors | 0,31 | 0,37 | 0,57 | 106,9 |
| Electricity distribution | 0,32 | 0,46 | 0,52 | 135,2 |
| Insulated wire and cables | 0,71 | 0,79 | 0,77 | 91,1 |
| Accumulators | 0,43 | 0,47 | 0,33 | 82,3 |
| Electric lamps | 0,30 | 0,25 | 0,22 | 90,5 |
| Other electrical equipment | 1,28 | 1,15 | 1,04 | 99,9 |
| Radio, television and communication apparatus | 1,59 | 1,20 | 0,97 | 123,8 |
| Professional equipment | 0,41 | 0,54 | 0,51 | 80,9 |
| Motor vehicles; trailers; parts and accessories | 6,40 | 6,77 | 8,05 | 119,6 |
| Motor vehicles | 3,30 | 3,62 | 4,50 | 114,9 |
| Bodies for motor vehicles; trailers and semi-trailers | 0,61 | 0,52 | 0,55 | 63,3 |
| Parts and accessories | 2,49 | 2,62 | 3,00 | 137,0 |
| Other transport equipment | 1,16 | 1,10 | 1,01 | 118,3 |
| Furniture | 1,69 | 1,62 | 1,56 | 98,9 |
| Other manufacturing divisions | 1,79 | 1,88 | 2,58 | 111,5 |
| TOTAL | 100,0 | 100,0 | 100,0 | 106,0 |

## FOR MORE INFORMATION

Stats SA publishes approximately 300 different statistical releases each year. It is not economically viable to produce them in more than one of South Africa's eleven official languages. Since the releases are used extensively, not only locally but also by international economic and social-scientific communities, Stats SA releases are published in English only.

Stats SA has copyright on this publication. Users may apply the information as they wish, provided that they acknowledge Stats SA as the source of the basic data wherever they process, apply, utilise, publish or distribute the data; and also that they specify that the relevant application and analysis (where applicable) result from their own processing of the data.

## Advance release calendar

An advance release calendar is disseminated on http://www/statssa.gov.za

## Stats SA products

A complete set of Stats SA publications is available at the Stats SA Library and the following libraries:
National Library of South Africa, Pretoria Division
National Library of South Africa, Cape Town Division
Natal Society Library, Pietermaritzburg
Library of Parliament, Cape Town
Bloemfontein Public Library
Johannesburg Public Library
Eastern Cape Library Services, King William’s Town
Central Regional Library, Polokwane
Central Reference Library, Nelspruit
Central Reference Collection, Kimberley
Central Reference Library, Mmabatho
Stats SA also provides a subscription service.

## Electronic services

A large range of data are available via on-line services, diskette and computer printouts. For more details about our electronic data services, contact (012) 310 8600/8390/8351/4892/8496/8095.

You can visit us on the Internet at: http://www.statssa.gov.za

## Enquiries

$\left.\begin{array}{ll}\text { Telephone number: } & \begin{array}{l}\text { (012) } 3108600 / 8390 / 8351 / 4892 / 8496 / 8095 \text { (user enquiries) } \\ \\ \text { Fax number: } \\ \text { E-mail address: } \\ \text { (012) } 3108233 / 3108669 \text { (technical enquiries) } \\ \text { (012) } 3108490 \text { (library) }\end{array} \\ \text { Postal address: } & \text { (012) } 3108332\end{array} \quad \begin{array}{l}\text { Dawnvd@ statssa.gov.za } \\ \text { Teresam@ statssa.gov.za }\end{array}\right]$


[^0]:    * Revised

    1/ Preliminary

[^1]:    * Revised

    1/ Preliminary

