Statistics

# Manufacturing: Production and sales 

 June 2005
## Embargoed until:

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Table A - Selected key figures regarding manufacturing production and sales for June 2005

| Estimates | June 2005 | \% change <br> between <br> June 2004 <br> and <br> June 2005 | \% change <br> between <br> April to <br> June 2004 <br> and <br> April to <br> June 2005 | \% change <br> between <br> January to <br> June 2004 <br> and |
| :--- | :---: | :---: | :---: | :---: |
| January to <br> June 2005 |  |  |  |  |
| Physical volume of <br> manufacturing <br> production index <br> (2000=100) | 113,0 |  |  |  |
| Total value of sales <br> of manufactured <br> products <br> (R million) | $+2,3$ |  | $+3,9$ |  |


| Seasonally <br> adjusted <br> estimates | June 2005 | \% change <br> between <br> May <br> and <br> June 2005 | \% change <br> between <br> January to <br> March 2005 <br> and <br> April to <br> June 2005 |
| :--- | :---: | :---: | :---: |
| Physical volume of <br> manufacturing <br> production index <br> (2000=100) 113,0 $+0,7$ <br> Total value of sales <br> of manufactured <br> products <br> (R million) 70607  |  | $+3,2$ |  |

## Key findings regarding manufacturing production and sales for June 2005

## Manufacturing production increases

The estimated manufacturing production for the second quarter of 2005 increased by 3,2\%, after seasonal adjustment, compared with the first quarter of 2005. Higher production was reported by eight of the ten manufacturing divisions. The seasonally adjusted difference between the first and the second quarter of 2005 should be used with caution. Lower production was reported in March 2005 and increased production in April 2005 due to a longer working month after the public holidays in March 2005.

The major contributor to the seasonally adjusted increase of $3,2 \%$ in total manufacturing production for second quarter of 2005 compared with the first quarter of 2005 was the petroleum, chemical products, rubber and plastic products division (contributing $+1,4$ percentage point to the increase in total manufacturing production), followed by the food and beverages division (contributing $+0,6$ of a percentage point), the wood and wood products, paper, publishing and printing (contributing $+0,4$ of a percentage point), the basic iron and steel, non-ferrous metal products, metal products and machinery division (contributing $+0,4$ of a percentage point), the glass and non-metallic mineral products division (contributing $+0,2$ of a percentage point), the radio, television and communication apparatus and professional equipment (contributing $+0,2$ of a percentage point) and the motor vehicles, parts and accessories and other transport equipment division (contributing $+0,2$ of a percentage point) (see table B ).

Figure 1 shows the seasonally adjusted and trend series for the volume index of manufacturing production between January 1999 and June 2005. The trend series has been rising since mid-2003 to September 2004, declining slightly up to December 2004 and resuming its upward trend in 2005.

Figure 1 - Index of the physical volume of manufacturing production


Table B - Contribution of manufacturing divisions to total manufacturing production (Base 2000=100)

| I | \| Percentage | Average | \| Average | Quarterly | Contribution |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Manufacturing | \|contribution | seasonally | \| seasonally| | percentage | (percentage |
| divisions | \|to the total | adjusted | \| adjusted | | change of | points) to |
| I | \|manufacturing | production | \| production| | April to | the seasonally \| |
| । | \| production | index for | \| index for | | June 2005 | adjusted |
| \| | \|using the | January to | \| April to | | compared | quarterly |
| I | \|weights | March | \| June | with the | percentage |
| I | \|according to | 2005 | \| 2005 | preceding | change in total\| |
| \| | \|large sample |  | 1 \| | three | manufacturing |
| \| | \|survey of the | |  | 1 \| | months | production |
| । | \|manufacturing | |  | 1 \| |  |  |
| \| | \|industry, 2001| |  | 1 \| |  | $1 /$ |
| \| Food and beverages | 16,4 | 114,3 | 118,3 | $+3,5$ | +0,6 |
| \| Textiles, clothing, | 1 |  |  |  |  |
| \| leather and footwear | 5,4 | 100,3 | 100,3 | 0,0 | 0,0 |
| \| Wood and wood products, paper, | 1 |  |  |  |  |
| \| publishing and printing | 11,0 | 104,5 | 107,8 | +3,2 | +0, 4 |
| \| Petroleum, chemical products, rubber and plastic products | 22,5 | 107,7 | 114,6 | +6,4 | +1, 4 |
| \| Glass and non-metallic mineral | 22, |  |  |  |  |
| \| products | 3,9 | 112,7 | 119,9 | $+6,4$ | +0,2 |
| \| Basic iron and steel, | 1 |  |  |  |  |
| \| non-ferrous metal products, | 1 |  |  |  |  |
| \| metal products and machinery | 22,4 | 112,9 | 114,9 | +1, 8 | +0, 4 |
| \| Electrical machinery | 2,7 | 95,7 | 96,3 | +0,6 | +0,0 |
| \| Radio, television and | 1 |  |  |  |  |
| \| communication apparatus and | 1 |  |  |  |  |
| \| professional equipment | 1,3 | 100,1 | 112,4 | +12,3 | +0,2 |
| \| Motor vehicles, parts and | 1 |  |  |  |  |
| \| accessories and | , |  |  |  |  |
| \| other transport equipment | 8,6 | 120,3 | 123,5 | +2, 7 | +0,2 |
| \| Furniture and other | 1 - |  |  |  |  |
| \| manufacturing divisions | 5,8 | 106,6 | 102,3 | -4,0 | -0,2 |
| \| Total | 100,0 | 110,0 | 113,5 | +3, 2 | +3,2 |

## Sales of manufactured products increase

The estimated total value of sales of manufactured products at current prices for the second quarter of 2005 increased by 4,8\% (+R9 677 million), after seasonal adjustment, compared with the first quarter of 2005. Higher manufacturing sales were reported by nine of the ten manufacturing divisions during this period (see table C). The value of sales of manufactured products at current prices for the second quarter of 2005 was $\mathbf{7 , 3 \%}$ higher than for the second quarter of 2004 (see table D).

The seasonally adjusted increase of $4,8 \%$ in the total value of sales of manufactured products at current prices for the second quarter of 2005 compared with the first quarter of 2005 was mainly due to increases reported for motor vehicles, parts and accessories and other transport equipment ( $+9,3 \%$ or +R 2808 million), petroleum, chemical products, rubber and plastic products $(+8,3 \%$ or +R 3203 million), glass and non-metallic mineral products ( $+8,3 \%$ or +R 465 million), wood and wood products, paper, publishing and printing ( $+4,1 \%$ or + R 725 million), food and beverages $(+3,7 \%$ or $+\mathrm{R} 1376$ million) and basic iron and steel, non-ferrous metal products, metal products and machinery ( $+1,1 \%$ or + R485 million) divisions (see table C).

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

| (lanufacturing | Seasonally adjusted sales |  |  | Seasonally |  |  | Percentage change between | \|Difference in |seasonally |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | adjus | sted |  |  |  |  |  |
|  |  |  |  | sales |  |  |  | ladjusted |  |  |
|  | January to |  |  | April to |  |  | \| January to | \|sales | of |  |
|  | March 2005 |  |  | June 2005 |  |  | ```\| March 2005``` | \|manufacturing |  |  |
|  |  |  |  |  |  |  |  | \|divisi | ions |  |
|  | \| |  |  |  |  |  | \| April to | \| between |  |  |
|  |  |  |  |  |  |  | \| June 2005 | \| January to |  |  |
|  | \| |  |  |  |  |  | 1 | \| March 2005 |  |  |
|  | I |  |  | \| |  |  | 1 | 1 and |  |  |
|  | \| |  |  | \| |  |  | 1 | \| April to |  |  |
|  | । |  |  |  |  |  | I | \|June 2005 |  |  |
|  | \| |  |  |  |  |  | 1 | \| |  |  |
|  | I |  |  |  |  |  |  | । |  |  |
|  | R'000 |  |  | R'000 |  |  | \| | R'000 |  |  |
| \| Food and beverages | 37 | 639 |  | 39 | 015 | 295 | +3, 7 |  | 376 | 006 |
| \| Textiles, clothing, |  |  |  |  |  |  |  |  |  |  |
| leather and footwear | 10 | 448 | 056 |  | 326 |  | -1,2 |  | -121 | 265 |
| \| Wood and wood products, paper, | publishing and printing | 17 | 744 | 433 |  | 469 |  | +4, 1 |  | 725 | 092 |
| \| Petroleum, chemical products, | rubber and plastic products | 38 | 438 | 045 |  | 641 |  | +8, 3 | 3 | 202 | 996 |
| \| Glass and non-metallic mineral | products | 5 | 628 | 019 |  | 092 |  | +8, 3 |  | 464 | 609 |
| \| Basic iron and steel, <br> \| non-ferrous metal products, |  |  |  |  |  |  |  |  |  |  |
| \| metal products and machinery | 43 | 820 | 468 |  | 305 | 378 | +1,1 |  | 484 | 910 |
| \| Electrical machinery |  | 103 |  |  | 267 |  | +3,2 |  | 164 | 176 |
| \| Radio, television and communication apparatus and professional equipment | 2 | 651 |  |  | 863 |  | +8, 0 |  | 211 | 266 |
| \| Motor vehicles, parts and | accessories and |  |  |  |  |  |  |  |  |  |  |
| \| other transport equipment | 30 | 288 |  |  | 096 | 205 | +9, 3 | 2 | 807 | 618 |
| \| Furniture and other |  |  |  |  |  |  |  |  |  |  |
| \| manufacturing divisions |  | 315 |  |  | 677 | 350 | +3,9 |  | 361 | 509 |
| \| Total | 201 | 078 | 335 | 210 | 755 | 251 | +4, 8 |  | 676 | 916 |

The major contributors to the increase of $7,3 \%$ in sales of manufactured products at current prices for the second quarter of 2005 compared with the second quarter of 2004 were the motor vehicles, parts and accessories and other transport equipment $(+2,3$ percentage points or + R4 575 million), petroleum chemical products, rubber and plastic products $(+1,4$ percentage points or + R2 781 million), basic iron and steel, non-ferrous metal products, metal products and machinery $(+1,1$ percentage points or + R2 219 million), food and beverages ( $+0,9$ of a percentage point or + R1 750 million), furniture and 'other' manufacturing ( $+0,6$ of a percentage point or +R 1192 million) and glass and non-metallic mineral products $(+0,3$ of a percentage point or +R 656 million) (see table D$)$.

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

| \| | \| Percentage | \| Percentage | \| Contribution| | Difference |
| :---: | :---: | :---: | :---: | :---: |
| Manufacturing | \| contribution | \| change | \| (percentage | | \|in sales of |
| divisions | \|to total value | \| between | \| points) | \|manufacturing |
| \| | lof sales of | \|April to | \| to the | \|divisions |
| I | \|manufactured | \| June 2004 | \| percentage | \| between |
| I | \| products | \| and | \|change in | \|April to |
| 1 | \|April to | \|April to | \| the total | \| June 2004 |
| I | \| June 2004 | \| June 2005 | \|value of | l and |
| I | \| | \| | \|sales of | \|April to |
| I | I | I | \|manufactured| | \| June 2005 |
| 1 | 1 | \| | \|products 1/ | |  |
| I | 1 | I | \| | |  |
| \| | I | \| | 1 \| |  |
| 1 | \| | \| | 1 \| | R'000 |
| \| Food and beverages | 18,6 | +4,8 | +0,9 | 1750250 |
| \| Textiles, clothing, | 1 5,3 |  |  |  |
| \| leather and footwear | 5,3 | -0,8 | -0,0 | -78 626 |
| \| Wood and wood products, paper, | publishing and printing | 9,0 | +5,5 | +0,5 | 961496 |
| \| Petroleum, chemical products, | rubber and plastic products | 19,7 | +7,2 | +1, 4 | 2781171 |
| \| Glass and non-metallic mineral | products | ) 2,8 | +12,0 | +0, 3 | 656407 |
| \| Basic iron and steel, | non-ferrous metal products, | 1 |  |  |  |
| \| metal products and machinery | 21,5 | +5,3 | +1,1 | 2219341 |
| \| Electrical machinery | 2,6 | +3,4 | +0,1 | 172172 |
| \| Radio, television and communication apparatus and professional equipment | \| 1,5 | -4,0 | -0,1 | -118 011 |
| \| Motor vehicles, parts and | accessories and | I |  |  |  |
| \| other transport equipment | 14,5 | +16,2 | +2,3 | 4574530 |
| \| Furniture and other | 1 |  |  |  |
| \| manufacturing divisions | 4,3 | +14,3 | +0,6 | 1191746 |
| \| Total | 100,0 | $+7,3$ | $+7,3$ | 14110476 |

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 in 2004, divided by 100.

Figure 2 shows the seasonally adjusted and trend series for sales of manufactured products between January 1999 and June 2005. After peaking in September 2002, the series declined until May 2003, before resuming its upward movement.

Figure 2-Total value of sales of manufactured products at current prices


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## Notes

## Forthcoming issues

Purpose of the survey

## Special Data <br> Dissemination Standard of the IMF

## Issue

July 2005

## Expected release date

8 September 2005

The results of the monthly manufacturing production and sales survey are used to calculate indices of the physical volume of manufacturing production. These indices provide an indicator of the real level of manufacturing activity in the economy. They are used in monitoring the state of the economy and formulation of economic policy. They are also important inputs to estimation of the Gross Domestic Product (GDP).

The data in this statistical release adhere 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.

## Detailed tables

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

| Base $2000=100$ |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| \| Month | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 |
| Indices |  |  |  |  |  |  |  |
| 1 J | 83,6 | 85,2 | 91,1 | 93,7 | 94,4 | 93,1 | 1/ 96,2 |
| I F | 93,7 | 98,7 | 102,7 | 103,6 | 104,3 | 103,6 | 1/ 106,3 |
| 1 M | 97,9 | 104,8 | 106,8 | 108,2 | 108,4 | 114,0 | 1/ 114,9 |
| 1 A | 90,7 | 89,0 | 95,3 | 104,4 | 100,0 | 100,3 | 1/ 109,1 |
| 1 M | 95,9 | 99,9 | 100,2 | 110,3 | 105,6 | 111,5 | 1/ 112,8 |
| 1 J | 94,8 | 102,1 | 104,0 | 106,7 | 105,3 | 110,5 | 1/ 113,0 |
| 1 J | 98,3 | 100,1 | 102,8 | 108,8 | 108,7 | 112,9 |  |
| 1 A | 97,7 | 102,5 | 102,3 | 109,8 | 106,4 | 113,6 |  |
| 1 S | 100,9 | 104,8 | 103,1 | 111,4 | 108,6 | 115,9 |  |
| 10 | 107,3 | 109,8 | 114,9 | 119,6 | 116,7 | 122,4 |  |
| 1 N | 109,9 | 113,6 | 117,6 | 119,8 | 115,1 | 122, 2 |  |
| 1 D | 86,3 | 89,5 | 92,5 | 92,7 | 91,4 | 98,9 |  |
| \| Year | 96,4 | 100,0 | 102,8 | 107,4 | 105,4 | 109,9 |  |
| \| Seasonally adjusted indices |  |  |  |  |  |  |  |
| J | 95,5 | 97,0 | 102,4 | 105,5 | 106,6 | 105,1 | 109,0 |
| F | 94,6 | 99,8 | 105,0 | 105,8 | 107,4 | 106,7 | 110,1 |
| 1 M | 94,4 | 100,9 | 103,7 | 104,5 | 104,7 | 110,1 | 110,9 |
| 1 A | 96,6 | 94,7 | 101,4 | 111,6 | 106,1 | 105,7 | 115,3 |
| M | 96,4 | 100,0 | 100,1 | 110,1 | 105,1 | 110,9 | 112,2 |
| J | 94,0 | 101,2 | 103,1 | 106,1 | 104,8 | 110,2 | 113,0 |
| J | 97,3 | 99,1 | 101,7 | 107,6 | 107,5 | 111, 7 |  |
| A | 96,9 | 101,2 | 100,9 | 107,8 | 104,2 | 111,3 |  |
| 1 S | 97,2 | 101,1 | 100,1 | 108,3 | 105,4 | 112,5 |  |
| 10 | 97,3 | 99,6 | 104,4 | 108,5 | 105,9 | 110,8 |  |
| 1 N | 98,2 | 101,5 | 105,3 | 107,4 | 103,7 | 109,7 |  |
| D | 99,5 | 103,0 | 105,1 | 105,6 | 103,8 | 113,3 |  |

1/ Preliminary.

Table 2 - Percentage change in the index of the physical volume of manufacturing production: Total

| \| Month | 1999 |  | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| \| J |  | . | +1,9 | +6,9 | +2,9 | +0, 7 | -1, 4 | +3, 3 |
| \\| F |  | - | +5,3 | +4,1 | +0,9 | +0, 7 | -0, 7 | +2,6 |
| \| M |  | - | +7,0 | +1,9 | +1, 3 | +0, 2 | +5,2 | +0, 8 |
| 1 A |  | . | -1,9 | +7,1 | +9,5 | -4,2 | +0, 3 | +8,8 |
| \| M |  | . | +4,2 | +0, 3 | +10,1 | -4,3 | +5,6 | +1, 2 |
| 1 J |  | - | +7,7 | +1,9 | +2, 6 | -1,3 | +4,9 | +2,3 |
| 1 J |  | - | +1, 8 | +2,7 | +5,8 | -0,1 | +3,9 |  |
| 1 A |  | - | +4,9 | -0,2 | +7, 3 | -3,1 | +6,8 |  |
| 1 S |  | - | +3,9 | -1,6 | +8,1 | -2,5 | +6,7 |  |
| 10 |  | - | +2,3 | +4,6 | +4,1 | -2,4 | +4,9 |  |
| \| N |  | - | +3,4 | +3,5 | +1,9 | -3,9 | +6,2 |  |
| \| D |  | . | +3, 7 | +3,4 | +0,2 | -1,4 | +8,2 |  |
| \| Year |  | - | +3, 7 | +2,8 | +4,5 | -1,9 | +4, 3 |  |

[^0]Table 3 - Indices of the physical volume of manufacturing production by manufacturing division


Table 3 - Indices of the physical volume of manufacturing production by manufacturing division (concluded)

| । | 1 \| | 1 \| | Indices |  |  | Seasonally adjusted indices |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| \| Manufacturing |  | 1 \| |  |  |  |  |  |  |
| \| divisions | \|Weights| | \|Year | |  | , | \| Percenta | 1 |  | \| Percentage| |
| \| | \| | | \| |  | 1 | \|differen |  |  | \|difference| |
| I | I | , | June | \| June | \| between | I May | June | \| between | |
| \| | 1 | \| 2004 | | 2004 | \| 2005 | \| June | \| 2005 | 2005 | \| May |
| I | I | \| |  | । | \| 2004 | , |  | 1 and |
| I | I | I |  | I | 1 and | I |  | \| June |
| \| | । | \| |  | 1 | \| June | \| |  | \| 2005 |
| , | I | , |  | I | 12005 | । |  | 1 |
| \| Food and beverages | \| 16,4 | | \|111, 8 | | 110,7 | 119,0 | $+7,5$ | \| 115,2 | 118,2 | +2,6 |
| \| Textiles, clothing, | , |  |  |  |  | , |  |  |
| \| leather and footwear | \| 5,4 | | \|100,4| | 100,2 | 97,9 | -2,3 | 96,8 | 100,6 | +3,9 |
| \| Wood and wood products, paper, publishing and printing | 1 11,0 | $\text { \| } 104,0 \mid$ | 108,0 | 108,2 | +0, 2 | - 107,6 | 105,1 | -2,3 |
| \| Petroleum, chemical products, | \| | \| | |  |  |  | 107,6 | 105,1 |  |
| \| rubber and plastic products | \| 22,5 | | \|110, 7 | | 110,3 | 112,6 | +2,1 | \| 114,7 | 114,3 | -0, 3 |
| \| Glass and non-metallic mineral products | $3,9$ | $\begin{aligned} & \mid \\ & \|113,1\| \end{aligned}$ | 116,5 | 125,1 | +7,4 | \| 119,1 | 119,7 | +0,5 |
| \| Basic iron and steel, | 1 \| |  |  |  |  | \| |  |  |
| \| non-ferrous metal products, | $1 \quad 1$ | 1 \| |  |  |  | 1 |  |  |
| \| metal products and machinery | \| 22,4 | | \|113,9| | 116,3 | 111,8 | -3,9 | \| 115,5 | 111,3 | -3,6 |
| \| Electrical machinery | \| 2,7 | | \| $98,6 \mid$ | 99,8 | 97,0 | -2,8 | \| 96,4 | 94,6 | -1,9 |
| \| Radio, television and | - |  |  |  |  | । |  |  |
| \| communication apparatus and |  | 1 \| |  |  |  | , |  |  |
| \| professional equipment | 1,3 \| | \|111,3| | 112,3 | 120,0 | +6,9 | \| 114,7 | 118,7 | +3,5 |
| \| Motor vehicles, parts and | , | \| |  |  |  | 1 |  |  |
| \| accessories and | - 1 | \| | |  |  |  | । |  |  |
| \| other transport equipment | \| 8,6 | | \|115, 4| | 116,2 | 127,3 | +9,6 | \| 119,6 | 128,8 | +7,7 |
| \| Furniture and other | 1 \| |  |  |  |  | \| |  |  |
| \| manufacturing divisions | 5,8 । | \|101, 0 | | 94,1 | 102,4 | +8,8 | 96,0 | 105,1 | +9,5 |
| \| Total | \| 100,0 | | \|109,9| | 110,5 | 113,0 | $+2,3$ | \| 112,2 | 113,0 | +0, 7 |

[^1]Table 4 - Total of estimated sales of the manufacturing industry ( $\mathbf{R}^{\prime} 000$ )


1/ Preliminary.

Table 5 - Percentage change in the value of sales of the manufacturing industry: Total


[^2]Table 6 - Sales of manufactured products by manufacturing division (R'000)


Table 6 - Sales of manufactured products by manufacturing division ( $\mathbf{R}^{\prime} \mathbf{0 0 0}$ ) (concluded)


[^3]Table 7 - Percentage change between the current quarter and the corresponding quarter of the previous year in the physical volume of manufacturing production and sales by manufacturing division


## Explanatory notes

## Introduction

## Scope of the survey

Classification

## Statistical unit

## Weighting

 methodology1 Statistics South Africa (Stats SA) conducts a monthly survey of the manufacturing industry, covering manufacturing enterprises. This statistical release contains the results of a sample drawn from the new business register, with significantly enhanced coverage of South African businesses (see 4 below). The release contains monthly indices of the physical volume of manufacturing production and monthly value of sales of manufactured products by division within manufacturing.

2 In accordance with international practice, the indices are re-based every five years to a new base year. The base period of the index is 2000. Both estimated and seasonally adjusted figures are presented.

3 As is usual, information for the latest month has had to be estimated for respondents who have not reported by the cut-off date for production of results. These estimates will be revised in future statistical releases when their reported information becomes available.

4 As indicated earlier, Stats SA developed a new business register, based on units registered for value-added tax (VAT) and income tax, obtained from the South African Revenue Service (SARS), which replaced the previous business register.

5 This survey covers manufacturing enterprises, i.e. those conducting activities in -

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

6 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 (two digit) level. Each enterprise is classified to an industry which reflects its predominant activity.

7 The statistical unit for which information is compiled and published is the enterprise, defined as a legal unit or a combination of legal units that includes and directly controls all functions necessary to carry out its production activities.

8 For those strata not completely enumerated, the weights to produce estimates are the inverse ratio of the sampling fraction, modified to take account of nonresponse in the survey. Stratum estimates are calculated and then aggregated with the completely enumerated stratum to form division estimates. These procedures, which are in line with international best practice, are described in more detail on the Stats SA website at www.statssa.gov.za/publications/publicationsearch.asp.

9 For indices, a weight is calculated for every division according to the value added of the division relative to the total value added of the manufacturing industry as a whole, based on the results of the most recent census of manufacturing or large sample of the manufacturing industry. For the period 1996 to 2000 the weights are based on the 1996 Census of Manufacturing and for the period 2001 to 2005 the weights are based on the 2001 large sample survey of the manufacturing industry. Weights between census years are fixed. The production indices of all divisions are multiplied by the applicable weights and aggregated to produce the index for the total physical volume of manufacturing production (see table E for the fixed weights which were used for the two periods 1996 to 2000 and 2001 to 2005).

## Survey methodology and design

## Seasonal adjustment

Trend cycle

## Reliability of estimates

Revised figures

10 The survey is conducted monthly. Questionnaires are sent to a sample of approximately 3000 enterprises. Completed questionnaires are required to be returned to Stats SA within 10 days after the end of the reference month. Fax and telephone reminders are used to follow up non-respondents.

11 The value of sales of manufactured products is obtained monthly from the sample of 2994 enterprises, which was drawn in September 2004 from a population then of 41009 manufacturing enterprises. Each manufacturing division is divided into four size groups. The sample is drawn at the SIC three-digit level. All large enterprises (size group one), are completely enumerated. Simple random sampling is applied for size group two (medium sized) enterprises, and for size groups three and four (small) enterprises. The total value of sales of manufactured products of large enterprises (size group one) in a division is added to the weighted totals of size groups two, three and four of that division to reflect the total value of sales of the division.

12 The calculation of the monthly production indices is based on the value of sales of products and articles manufactured, after the effect of price changes has been eliminated through deflation using appropriate indices of the Production Price Index (PPI). For six of the ten SIC divisions in manufacturing, the value of production is calculated from the value of sales and stocks of manufactured products obtained from the monthly survey of manufacturing enterprises.

13 More direct indicators are used for the production of tobacco, 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 these major groups are calculated on the basis of physical quantities. This method is used by the national statistical agencies of many other countries for petroleum products as the results are considered more satisfactory (mainly because these commodities are relatively homogeneous).

14 Seasonally adjusted estimates of all divisions are generated each month, using the X-11 Seasonal Adjustment Program developed by the US Bureau of the Census, 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. Therefore the month-to-month movements of seasonally adjusted estimates may not be reliable indicators of trend behaviour.

15 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 to estimates of the underlying trend cycle.

16 Data presented in this publication are based on information obtained from a sample and are, therefore, subject to sampling variability; that is, they may differ from the figures that would have been produced if the data had been obtained from all enterprises in the manufacturing industry in South Africa. Estimates are subject to sampling and non-sampling errors.

17 Inaccuracies may occur because of imperfections in reporting by enterprises and errors made in the collection and processing of the data. Inaccuracies of this kind are referred to as non-sampling errors. Every effort is made to minimise nonsampling errors by careful design of questionnaires, testing them in pilot studies, editing reported data and implementing efficient operating procedures. Fluctuations may occur in consecutive months as a result of seasonal and economic factors.

18 Revised figures are due to late submission of data to Stats SA, or to respondents reporting revisions or corrections to their figures. Preliminary figures are

## Related publications

## Rounding of figures

## Pre-release policy

## Symbols and abbreviations

indicated in the relevant tables. Data are edited at the enterprise level.
19 Users may also wish to refer to the following publications available from Stats SA -

- Bulletin of Statistics issued quarterly.
- SA Statistics issued annually.

20 The figures in the tables have, where necessary, been rounded to the nearest digit shown.

21 Stats SA's pre-release policy may be inspected at its website, www.statssa.gov.za.
22

| GDP | Gross Domestic Product |
| :--- | :--- |
| ISIC | International Standard Industrial Classification |
| m | Million |
| SIC | Standard Industrial Classification of all Economic Activities |
| SARS | South African Revenue Service |
| Stats SA | Statistics South Africa |
| VAT | Value added tax |
| $1 /$ | Preliminary figures |
| - | Revised figures |

Neyman optimal allocation
Before drawing samples in each of the surveys the population of enterprises on the BSF was stratified. Strata were formed using a combination of Standard Industrial Classification variable and the measure of size variable for enterprises. The Neyman optimal allocation formula used to allocate samples to each stratum is given by a formula below.

$$
\mathrm{n}_{\mathrm{h}}=\frac{\mathrm{N}_{\mathrm{h}} \mathrm{~S}_{\mathrm{h}}}{\sum \mathrm{~N}_{\mathrm{h}} \mathrm{~S}_{\mathrm{h}}}
$$

where $\mathrm{N}_{\mathrm{h}}$ and $\mathrm{S}_{\mathrm{h}}$ are the stratum population size and tne stratum variance, respectively.

Class limits: Manufacturing

| Enterprise size | Lower limits | Upper limits |
| :--- | ---: | ---: |
| Very small | 0 | 5000000 |
| Small | 5000001 | 13000000 |
| Medium | 13000001 | 51000000 |
| Large | 51000001 |  |

## Glossary

## Enterprise <br> Index of physical volume of manufacturing production

## Industry

## Output

## Value added

## Sales

## Statistical unit

The enterprise is a legal entity or a combination of legal units that includes and directly controls all functions necessary to carry out its production activities.

The index of physical volume of manufacturing production, also known as a production index, is a statistical measure of the change in the volume of production. The production index of a division is the ratio between the volume of production of a division in a given period and the volume of production of the same division in the base period. The base period is 2000 . The production in the base period is set at 100 .

An industry is made up of enterprises 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).

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 is the aggregate value of goods manufactured and work done and 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.

Output excludes excise and customs duty paid.
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.

A statistical unit is a unit about which statistics are tabulated, compiled or published. The statistical units are derived from and linked to the South African Revenue Service (SARS) administrative data.

For the purpose of this publication, the statistical unit in the monthly manufacturing: production and sales survey is the enterprise.

## Turnover

Weight

Turnover refers to -

- the value of sales and transfers out of all own manufactured products/articles;
- amounts received for work done; and
- amounts received for services rendered.

Turnover excludes -

- value added tax (VAT);
- export freight charges; and
- excise duty.

The weight of a division of manufacturing in the overall index for manufacturing is the ratio of the value added of the division (i.e. output of a division minus intermediate consumption) to the total value added of the manufacturing industry. The weight reflects the importance of the division in the total. The ratios change over time due to changes in the relative performance of industries, due to factors such as quality changes, changes in relative prices, and changes in customer preferences. New weights need to be calculated from time to time.

Table E - Weights according to manufacturing divisions

| Manufacturing divisions | \| Weights according |to the 1996 |census of manu- |facturing | $1996-2000$ \| | Weights according to the 2001 large sample survey of the manufacturing industry $2001-2005$ |
| :---: | :---: | :---: |
| Food and beverages | 15,3 | 16,4 |
| Textiles, clothing, | 1 |  |
| leather and footwear | 7,8 | 5,4 |
| Wood and wood products, paper, publishing and printing | 11,4 | 11,0 |
| Petroleum, chemical products, rubber and plastic products | 19,3 | 22,5 |
| Glass and non-metallic mineral products | 4,5 | 3,9 |
| Basic iron and steel, non-ferrous metal products, | 1 |  |
| metal products and machinery | 23,6 | 22,4 |
| Electrical machinery | 3,4 | 2,7 |
| Radio, television and communication apparatus, professional equipment | 1,5 | 1,3 |
| Motor vehicles, parts and accessories and other transport equipment | 9,1 | 8,6 |
| Furniture and other | 1 |  |
| manufacturing divisions | 4,1 | 5,8 |
| Total | 100,0 | 100,0 |

## General 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.

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## Stats SA products

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Natal Society Library, Pietermaritzburg
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Central Regional Library, Polokwane
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You can visit us on the Internet at: www.statssa.gov.za

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Produced by Stats SA


[^0]:    The percentage change is the change in the index of the physical volume of manufacturing production of the relevant year compared with the index of physical volume of manufacturing production of the previous year expressed as a percentage.

[^1]:    1/ Preliminary.

[^2]:    The percentage change is the change in the sales of the manufacturing industry of the relevant year compared with the sales of the previous year expressed as a percentage.

[^3]:    1/ Preliminary.

