

# **Manufacturing: Production and sales**

## **November 2004**

**Embargoed until:  
11 January 2005  
13:00**

**This is a revised version of the statistical release due to a revision of the index of the division basic iron and steel, non-ferrous metal products, metal products and machinery.**

**Table A - Selected key figures regarding manufacturing production and sales for November 2004**

<b>Actual estimates</b>	<b>November 2004</b>	<b>% change between November 2003 and November 2004</b>	<b>% change between October and November 2004</b>	<b>% change between September to November 2003 and September to November 2004</b>	<b>% change between January to November 2003 and January to November 2004</b>
Physical volume of manufacturing production index (2000=100)	121,7	+5,8	-1,1	+5,8	+3,8
Total value of sales of manufactured products (R million)	74 511	+15,4	+2,2	+12,9	+8,6

<b>Seasonally adjusted estimates</b>	<b>November 2004</b>	<b>% change between November 2003 and November 2004</b>	<b>% change between October and November 2004</b>	<b>% change between June to August 2004 and September to November 2004</b>
Physical volume of manufacturing production index (2000=100)	109,8	+5,6	-1,2	+0,6
Total value of sales of manufactured products (R million)	67 445	+15,8	+1,6	+2,6

**Key findings regarding manufacturing production and sales for November 2004**

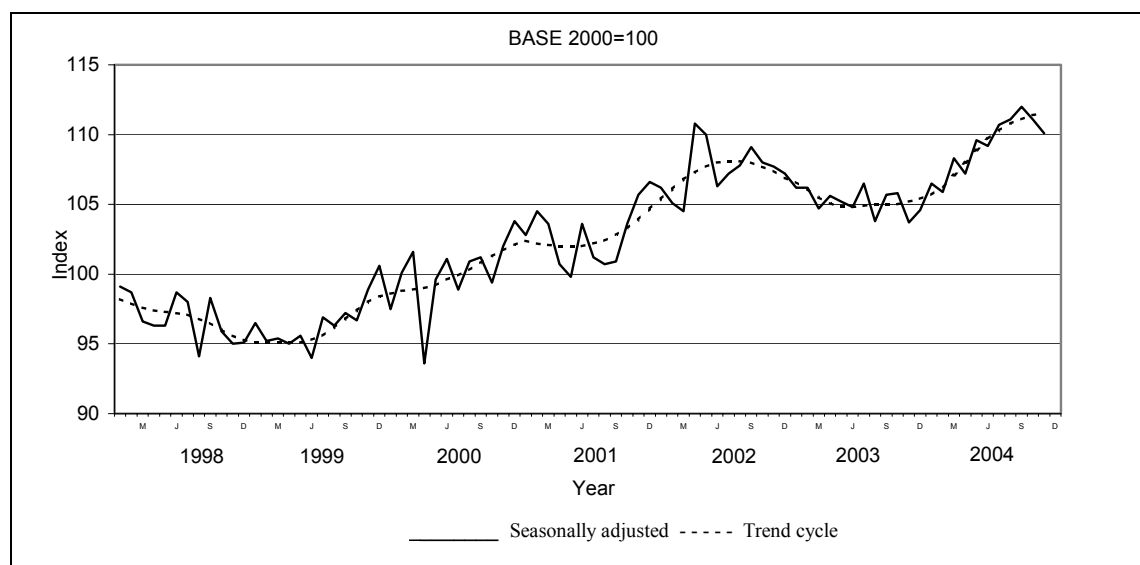
**Manufacturing production increases**

*Manufacturing production for the three months ended November 2004 increased by 0,6%, after seasonal adjustment, compared with the previous three months. Higher production was reported by five of the ten manufacturing divisions.*

The major contributor to the seasonally adjusted increase of 0,6% in total manufacturing production for the three months ended November 2004 compared with the previous three months was the wood and wood products, paper, publishing and printing division (contributing +0,4 of a percentage point to total manufacturing production), followed by the basic iron and steel, non-ferrous metal products, metal products and machinery division (contributing +0,3 of a percentage point) and furniture and 'other' manufacturing divisions (contributing +0,3 of a percentage point). However, these increases were partially counteracted by a decrease reported by the petroleum, chemical products, rubber and plastic products division (contributing -0,4 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 1998 and November 2004. The trend series has been rising since mid-2003.

**Figure 1 – Index of the physical volume of manufacturing production**



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

Manufacturing divisions	Percentage contribution to the total manufacturing production using the weights according to large sample survey of the manufacturing industry, 2001	Average seasonally adjusted production index for September to November 2004	Quarterly percentage change of September to November 2004 compared with the preceding three months	Contribution (percentage points) to the seasonally adjusted quarterly percentage change in total manufacturing production
Food and beverages	16,4	113,9	-0,7	-0,1
Textiles, clothing, leather and footwear	5,4	100,6	-0,9	-0,1
Wood and wood products, paper, publishing and printing	11,0	108,5	+3,5	+0,4
Petroleum, chemical products, rubber and plastic products	22,5	108,8	-1,8	-0,4
Glass and non-metallic mineral products	3,9	118,9	+3,2	+0,1
Basic iron and steel, non-ferrous metal products, metal products and machinery	22,4	113,0	+1,3	+0,3
Electrical machinery	2,7	100,3	-0,1	0,0
Radio, television and communication apparatus and professional equipment	1,3	101,0	-2,7	0,0
Motor vehicles, parts and accessories and other transport equipment	8,6	120,4	+1,2	+0,1
Furniture and other manufacturing divisions	5,8	104,8	+4,4	+0,3
<b>Total</b>	<b>100,0</b>	<b>111,0</b>	<b>+0,6</b>	<b>+0,6</b>

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.

**Sales of manufactured products increase**

*The total value of sales of manufactured products at current prices for the three months ended November 2004 increased by 2,6% (+R5 150 million), after seasonal adjustment, compared with the previous three months. Higher manufacturing sales were reported by nine of the ten manufacturing divisions during this period (see table C). Furthermore, the actual value of sales of manufactured products at current prices for the three months ended November 2004 was 12,9% higher than for the three months ended November 2003 (see table D). Sales of manufactured products at current prices for the first eleven months of 2004 was 8,6% higher than for the first eleven months of 2003.*

The seasonally adjusted increase of 2,6% in the total value of sales of manufactured products at current prices for the three months ended November 2004 was mainly due to large increases reported for motor vehicles, parts and accessories and other transport equipment (+5,8% or +R1 661 million), basic iron and steel, non-ferrous metal products, metal products and machinery (+3,6% or +R1 559 million), petroleum, chemical products, rubber and plastic products (+1,7% or +R690 million) and food and beverages (+1,5% or +R508 million) (see table C).

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

Manufacturing divisions	Seasonally adjusted sales September to November 2004	Percentage change between June to August 2004 and September to November 2004	Difference in seasonally adjusted sales of manufacturing divisions between June to August 2004 and September to November 2004
	R'000		R'000
Food and beverages	34 863 254	+1,5	508 441
Textiles, clothing, leather and footwear	8 954 199	-2,0	-178 086
Wood and wood products, paper, publishing and printing	17 196 855	+2,1	352 262
Petroleum, chemical products, rubber and plastic products	40 982 288	+1,7	689 528
Glass and non-metallic mineral products	6 232 127	+4,5	266 866
Basic iron and steel, non-ferrous metal products, metal products and machinery	44 934 830	+3,6	1 559 338
Electrical machinery	5 352 927	+3,5	183 402
Radio, television and communication apparatus and professional equipment	2 706 734	+0,3	8 253
Motor vehicles, parts and accessories and other transport equipment	30 349 282	+5,8	1 661 259
Furniture and other manufacturing divisions	9 308 506	+1,1	98 286
<b>Total</b>	<b>200 881 002</b>	<b>+2,6</b>	<b>5 149 551</b>

The major contributors to the increase of 12,9% in sales of manufactured products at current prices for the three months ended November 2004 compared with the three months ended November 2003 were basic iron and steel, non-ferrous metal products, metal products and machinery (+3,2 percentage points or +R6 213 million), motor vehicles, parts and accessories and other transport equipment (+2,9 percentage points or +R5 627 million), petroleum, chemical products, rubber and plastic products (+2,5 percentage points or +R4 785 million) and food and beverages (+2,2 percentage points or +R4 276 million) (see table D).

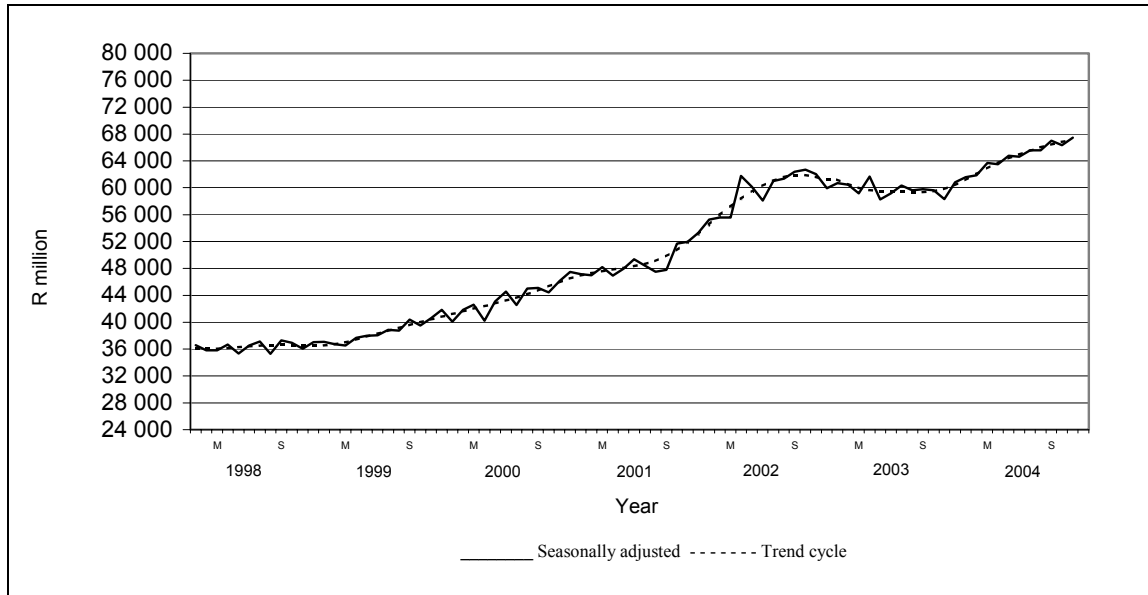
**Table D - Contribution of the manufacturing divisions to total value of sales of manufactured products**

Manufacturing divisions	Percentage contribution to total value of sales of manufactured products September to November 2003	Percentage change between September to November 2003 and September to November 2004	Contribution (percentage points) to the percentage change in the total value of sales of manufactured products 1/	Difference in sales of manufacturing divisions between September to November 2003 and September to November 2004
				R'000
Food and beverages	16,8	13,3	2,2	4 276 188
Textiles, clothing, leather and footwear	5,1	5,0	0,3	487 358
Wood and wood products, paper, publishing and printing	9,2	6,5	0,6	1 142 147
Petroleum, chemical products, rubber and plastic products	20,5	12,2	2,5	4 784 962
Glass and non-metallic mineral products	3,0	21,4	0,6	1 224 143
Basic iron and steel, non-ferrous metal products, metal products and machinery	21,7	14,9	3,2	6 213 403
Electrical machinery	2,9	4,5	0,1	248 364
Radio, television and communication apparatus and professional equipment	1,6	-6,4	0,0	-192 203
Motor vehicles, parts and accessories and other transport equipment	14,3	20,5	2,9	5 627 342
Furniture and other manufacturing divisions	4,9	10,2	0,5	967 388
<b>Total</b>	<b>100,0</b>	<b>12,9</b>	<b>12,9</b>	<b>24 779 092</b>

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.

Figure 2 shows the seasonally adjusted and trend series for sales of manufactured products between January 1998 and November 2004. 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**

<b>Forthcoming issues</b>	<b>Issue</b>	<b>Expected release date</b>
	December 2004	8 February 2005
<b>Purpose of the survey</b>	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).	
<b>Special Data Dissemination Standard of the IMF</b>	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	1998	1999	2000	2001	2002	2003	2004
Actual indices							
J	85,8	83,6	85,2	90,8	93,7	94,4	94,1
F	97,2	93,7	98,7	102,7	103,6	104,4	104,1
M	98,9	97,9	104,8	106,8	108,2	108,4	111,8
A	92,3	90,7	89,0	95,3	104,4	99,9	101,6
M	96,9	95,9	99,9	100,2	110,3	105,4	109,9
J	99,6	94,8	102,1	104,0	106,7	105,3	109,4
J	100,0	98,3	100,1	102,8	108,8	108,5	112,5
A	95,6	97,7	102,5	102,3	109,8	106,0	113,2
S	102,3	100,9	104,8	103,1	111,4	108,4	115,0
O	106,9	107,3	109,8	114,9	119,6	116,7	123,1
N	105,5	109,9	113,6	117,6	119,8	115,0	121,7 1/
D	81,8	86,3	89,5	92,5	92,7	91,4	
Year	96,9	96,4	100,0	102,8	107,4	105,3	
Seasonally adjusted indices							
J	99,0	96,5	97,5	102,8	106,2	107,1	106,5
F	98,7	95,2	100,1	104,6	105,2	106,2	105,9
M	96,7	95,5	101,7	103,7	104,5	104,8	108,3
A	96,3	95,0	93,7	100,8	110,9	105,7	107,2
M	96,3	95,6	99,5	99,9	110,0	105,2	109,6
J	98,7	94,0	101,1	103,6	106,4	104,9	109,2
J	98,0	96,9	98,9	101,0	107,0	106,6	110,7
A	94,1	96,3	100,9	100,5	107,6	103,8	111,1
S	98,2	97,2	101,2	100,6	108,8	105,6	112,0
O	95,9	96,7	99,4	103,7	108,0	105,4	111,1
N	95,0	98,8	102,0	106,0	107,9	104,0	109,8
D	95,0	100,5	103,7	106,5	107,0	104,5	

1/ Preliminary.

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

Month	1998	1999	2000	2001	2002	2003	2004
J	.	-2,6	+1,9	+6,6	+3,2	+0,7	-0,3
F	.	-3,6	+5,3	+4,1	+0,9	+0,8	-0,3
M	.	-1,0	+7,0	+1,9	+1,3	+0,2	+3,1
A	.	-1,7	-1,9	+7,1	+9,5	-4,3	+1,7
M	.	-1,0	+4,2	+0,3	+10,1	-4,4	+4,3
J	.	-4,8	+7,7	+1,9	+2,6	-1,3	+3,9
J	.	-1,7	+1,8	+2,7	+5,8	-0,3	+3,7
A	.	+2,2	+4,9	-0,2	+7,3	-3,5	+6,8
S	.	-1,4	+3,9	-1,6	+8,1	-2,7	+6,1
O	.	+0,4	+2,3	+4,6	+4,1	-2,4	+5,5
N	.	+4,2	+3,4	+3,5	+1,9	-4,0	+5,8
D	.	+5,5	+3,7	+3,4	+0,2	-1,4	
Year	.	-0,5	+3,7	+2,8	+4,5	-2,0	

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.

**Table 3 - Indices of the physical volume of manufacturing production by manufacturing division**

Base 2000 = 100

Manufacturing divisions	Weights	Year 2003	Actual indices			Seasonally adjusted indices				
			November	October	November	1/November	October	November		
			2003		2004		2003		2004	
Food and beverages	16,4	103,6	114,5	125,1	124,6	102,4	115,3	111,9		
Textiles, clothing, leather and footwear	5,4	95,7	103,4	123,5	117,4	86,9	102,4	99,2		
Wood and wood products, paper, publishing and printing	11,0	100,5	113,7	120,9	117,8	101,7	111,1	105,5		
Petroleum, chemical products, rubber and plastic products	22,5	106,6	114,7	119,3	113,0	107,3	109,7	105,0		
Glass and non-metallic mineral products	3,9	104,5	115,4	126,5	140,8	103,1	111,2	126,1		
Basic iron and steel, non-ferrous metal products, metal products and machinery	22,4	111,5	119,3	119,0	122,9	110,7	111,8	114,0		
Electrical machinery	2,7	102,7	116,7	112,4	112,8	103,2	101,6	99,7		
Radio, television and communication apparatus and professional equipment	1,3	101,2	105,6	105,1	103,6	103,1	98,9	102,5		
Motor vehicles, parts and accessories and other transport equipment	8,6	108,1	114,3	135,2	133,1	103,5	116,7	120,4		
Furniture and other manufacturing divisions	5,8	97,8	116,2	141,4	131,6	91,2	108,4	103,2		
<b>Total</b>	<b>100,0</b>	<b>105,3</b>	<b>115,0</b>	<b>123,1</b>	<b>121,7</b>	<b>104,0</b>	<b>111,1</b>	<b>109,8</b>		

1/ Preliminary.

**Table 4 - Total sales of manufacturing industry (R'000)**

Month	1998	1999	2000	2001	2002	2003	2004
Actual values							
J	30 576 822	31 165 950	33 906 711	40 233 251	47 375 894	51 643 823	52 541 243
F	35 498 013	36 217 248	41 487 385	46 701 165	55 226 455	59 099 962	60 406 324
M	38 210 216	38 782 180	45 391 460	51 045 548	58 657 750	61 384 235	65 908 558
A	35 326 061	36 079 564	38 606 833	44 861 167	59 046 008	58 115 074	60 010 965
M	35 971 768	38 617 164	43 799 078	48 988 234	61 240 265	58 700 877	65 290 063
J	37 522 754	39 201 945	46 031 926	50 924 770	59 827 100	59 613 288	64 828 015
J	37 828 313	39 493 231	43 083 506	48 906 488	61 523 700	60 397 962	65 823 059
A	36 464 484	39 882 170	46 347 295	48 882 758	63 111 998	60 566 563	66 600 738
S	39 084 148	42 233 261	47 362 496	50 070 717	65 371 794	61 812 044	69 321 988
O	41 638 502	44 392 235	49 571 166	57 505 396	69 692 230	65 558 708	72 886 164
N	40 834 784	45 966 203	52 246 640	58 662 310	69 910 936	64 569 771	74 511 463 1/
D	33 832 128	38 693 441	43 806 233	49 356 948	55 577 013	55 647 226	
Year	442 787 993	470 724 592	531 640 729	596 138 752	726 561 143	717 109 533	
Seasonally adjusted values							
J	37 085 599	37 549 520	40 529 490	47 542 140	55 854 422	60 744 167	61 646 259
F	36 358 569	37 106 659	42 432 595	47 832 374	56 462 643	60 485 702	61 866 857
M	36 540 811	37 167 738	43 424 112	48 953 824	56 367 146	59 174 067	63 694 453
A	37 294 959	38 165 688	40 911 441	47 611 911	62 880 075	61 620 111	63 431 181
M	36 057 974	38 629 898	43 636 887	48 685 495	60 761 187	58 274 951	64 725 063
J	36 898 243	38 516 011	45 154 671	50 090 103	59 065 450	59 153 268	64 631 127
J	37 816 625	39 583 403	43 209 454	49 007 734	61 508 831	60 314 003	65 550 660
A	35 861 160	39 290 582	45 680 372	48 144 515	62 066 445	59 624 091	65 549 664
S	37 741 647	40 872 653	45 844 258	48 547 288	63 364 445	59 834 342	67 085 907
O	37 293 164	39 991 788	44 974 153	52 331 939	63 461 737	59 669 838	66 350 425
N	36 683 158	41 303 933	47 028 541	52 790 752	63 028 744	58 259 328	67 444 670
D	37 186 821	42 451 167	47 936 871	53 576 461	60 794 756	60 825 214	

1/ Preliminary.

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

Month	1998	1999	2000	2001	2002	2003	2004
J	..	+1,9	+8,8	+18,7	+17,8	+9,0	+1,7
F	..	+2,0	+14,6	+12,6	+18,3	+7,0	+2,2
M	..	+1,5	+17,0	+12,5	+14,9	+4,6	+7,4
A	..	+2,1	+7,0	+16,2	+31,6	-1,6	+3,3
M	..	+7,4	+13,4	+11,8	+25,0	-4,1	+11,2
J	..	+4,5	+17,4	+10,6	+17,5	-0,4	+8,7
J	..	+4,4	+9,1	+13,5	+25,8	-1,8	+9,0
A	..	+9,4	+16,2	+5,5	+29,1	-4,0	+10,0
S	..	+8,1	+12,1	+5,7	+30,6	-5,4	+12,1
O	..	+6,6	+11,7	+16,0	+21,2	-5,9	+11,2
N	..	+12,6	+13,7	+12,3	+19,2	-7,6	+15,4
D	..	+14,4	+13,2	+12,7	+12,6	+0,1	
Year	.	+6,3	+12,9	+12,1	+21,9	-1,3	

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.

**Table 6 - Sales of manufactured products by manufacturing division (R'000)**

Manufacturing divisions	Year	Actual values						Seasonally adjusted values					
		November		October		November 1/		November		October		November	
		2003		2003		2004		2003		2004		2004	
Food and beverages	124 771 847	10 879 341	12 270 637	12 562 526	10 037 029	11 624 707	11 620 918						
Textiles, clothing, leather and footwear	35 505 661	3 291 698	3 564 955	3 589 547	2 694 310	3 001 391	2 933 950						
Wood and wood products, paper, publishing and printing	65 416 117	6 060 106	6 293 523	6 316 127	5 388 383	5 813 843	5 616 785						
Petroleum, chemical products, rubber and plastic products	148 180 564	12 971 464	14 935 640	15 516 584	11 663 862	13 435 960	13 987 727						
Glass and non-metallic mineral products	20 136 354	1 932 865	2 287 235	2 467 861	1 692 404	2 010 706	2 168 328						
Basic iron and steel, non-ferrous metal products, metal products and machinery	154 879 658	13 931 555	15 691 427	16 348 813	12 865 163	14 713 414	15 219 136						
Electrical machinery	20 906 441	1 898 402	1 974 335	2 004 994	1 683 184	1 824 560	1 771 637						
Radio, television and communication apparatus and professional equipment	11 116 190	987 929	932 118	916 836	976 287	901 693	902 361						
Motor vehicles, parts and accessories and other transport equipment	102 514 318	9 393 995	11 200 622	11 266 219	8 483 075	9 876 955	10 194 524						
Furniture and other manufacturing divisions	33 682 383	3 222 416	3 735 672	3 521 956	2 775 631	3 147 197	3 029 304						
<b>Total</b>	<b>717 109 533</b>	<b>64 569 771</b>	<b>72 886 164</b>	<b>74 511 463</b>	<b>58 259 328</b>	<b>66 350 425</b>	<b>67 444 670</b>						

1/ Preliminary.

## Explanatory notes

- Introduction**
- 1 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 actual 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 the value-added tax (VAT) database obtained from the South African Revenue Service (SARS), which replaced the previous business register. All enterprises are legally bound to register for VAT when their turnover for a period of twelve months equals or exceeds R300 000. Enterprises that conform to these criteria are included in the new business register, and hence were given a chance of selection in the new sample for the survey.
- Scope of the survey**
- 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.
- Classification**
- 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.
- Statistical unit**
- 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.
- Weighting methodology**
- 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 non-response 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](http://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 2004 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 2004).

- Survey methodology and design**
- 10** The survey is conducted by mail on a monthly basis. Questionnaires are sent to a sample of just over 3 000 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 just over 3 000 enterprises, which was drawn in January 2003 from a population then of approximately 31 000 manufacturing enterprises. Each manufacturing division is divided into four size groups. The sample is drawn at the SIC two-digit level. All large enterprises (size group one), which comprise about one-third of the enterprises in the current sample, 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 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 and other transport equipment. 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).
- Seasonal adjustment**
- 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.
- Trend cycle**
- 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.
- Reliability of estimates**
- 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 non-sampling 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.

<b>Revised figures</b>	<b>18</b>	Revised figures are due to respondents reporting revisions or corrections to their figures and late submission of their data to Stats SA. Figures for the latest month are preliminary. Data are edited at the enterprise level.																		
<b>Related publications</b>	<b>19</b>	<p>Users may also wish to refer to the following publications available from Stats SA -</p> <ul style="list-style-type: none"> <li>• <i>Bulletin of Statistics</i> issued quarterly.</li> <li>• <i>SA Statistics</i> issued annually.</li> </ul>																		
<b>Rounding of figures</b>	<b>20</b>	The figures in the tables have, where necessary, been rounded to the nearest digit shown.																		
<b>Pre-release policy</b>	<b>21</b>	Stats SA's pre-release policy may be inspected at its website, <a href="http://www.statssa.gov.za">www.statssa.gov.za</a> .																		
<b>Symbols and abbreviations</b>	<b>22</b>	<table border="0"> <tr> <td>GDP</td> <td>Gross Domestic Product</td> </tr> <tr> <td>ISIC</td> <td>International Standard Industrial Classification</td> </tr> <tr> <td>m</td> <td>Million</td> </tr> <tr> <td>SIC</td> <td>Standard Industrial Classification of all Economic Activities</td> </tr> <tr> <td>SARS</td> <td>South African Revenue Service</td> </tr> <tr> <td>Stats SA</td> <td>Statistics South Africa</td> </tr> <tr> <td>VAT</td> <td>Value added tax</td> </tr> <tr> <td>1/</td> <td>Preliminary figures</td> </tr> <tr> <td>*</td> <td>Revised figures</td> </tr> </table>	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
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## Glossary

<b>Enterprise</b>	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.
<b>Index of physical volume of manufacturing production</b>	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.
<b>Industry</b>	An industry is made up of enterprises engaged in the same or similar kinds of economic activity. Industries are defined in the <i>System of National Accounts (SNA)</i> in the same way as in the <i>Standard Industrial Classification of all Economic Activities, Fifth Edition, Report No. 09-90-02 of January 1993 (SIC)</i> .
<b>Intermediate consumption</b>	Intermediate consumption includes - <ul style="list-style-type: none"><li>• purchases and transfers-in of materials;</li><li>• payments to other establishments for work done;</li><li>• other direct factory costs;</li><li>• rent and leasing paid;</li><li>• head office charges;</li><li>• royalties, copyright, trade names and patent rights paid;</li><li>• advertising;</li><li>• insurance premiums;</li><li>• services; and</li><li>• secretarial and administrative fees.</li></ul>
<b>Output</b>	Output is the aggregate value of goods manufactured and work done and includes - <ul style="list-style-type: none"><li>• sales and transfers-out of own manufactures, factory waste and stocks of factored goods;</li><li>• repairs;</li><li>• installation, erection and assembly;</li><li>• sundry trading revenue;</li><li>• sales of factored goods minus purchases of factored goods;</li><li>• rent and leasing received;</li><li>• royalties received;</li><li>• difference between opening value and closing value of work in progress, stocks of own manufactures and stocks of factored goods;</li><li>• head office charges; and</li><li>• other revenue.</li></ul> Output excludes excise and customs duty paid.
<b>Value added</b>	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.
<b>Sales</b>	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.
<b>Statistical unit</b>	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**

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.

**Weight**

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 Manufacturing 1996 - 2000	Weights according to the 2001 large sample survey of the manufacturing industry 2001 - 2004
Food and beverages	15,3	16,4
Textiles, clothing, 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; 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 manufacturing divisions	4,1	5,8
Total	100,0	100,0

### General information

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