

Dipalopalo tsa Aforika Borwa • Statistieke Suid-Afrika • Tistatistiki ta Afrika-Dzonga • Ukuqokelelwa kwamanani eNingizimu Afrika

# Manufacturing: production and sales

March 2003

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.

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#### Key figures as at the end of March 2003

Actual estimates	March 2003	% change between March 2002 and 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)	52 746,8	+7,1	+9,0

% change Seasonally % change between adjusted March between October 2002 to estimates 2003 February 2003 December 2002 and and January 2003 to March 2003 March 2003 Physical volume of manufacturing production index (2000=100)104,7 -1,7-1,9Total value of manufactured -2,1 products 50 824,4 -2,0 (R million)

sales

of

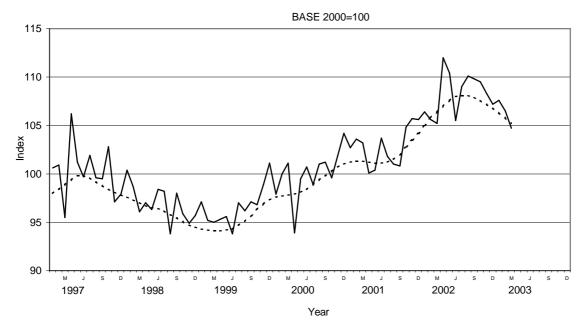
sales

#### 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 \_\_\_\_\_ Seasonally adjusted ---- Trend cycle

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

Manufacturing   contribu-   seasonally   percentage   (percentage   Divisions   tion to the   adjusted   change   points) to   total manu-   production   (January 2003   the seaso-   facturing   index for   to   nally adju   production   the three   March 2003   ted quarte   in the base   months   compared   percentage   year 2000   January 2003   with the   change in   (Weights)   to   preceding   total manu   March 2003   three   facturing					
Divisions					•
total manu-   production   (January 2003)   the seasonally adjusted percentage   production   in the base   year 2000   January 2003   the three   months   compared   percentage   year 2000   January 2003   with the change in total manu   facturing   months   to   preceding   production   march 2003   three   facturing   march 2004   three   facturing   total march 2004   three   facturing   march 2004   three   facturing   total march 2004   thre					
facturing   production   the three   months   compared   production   in the base   year 2000   (Weights)   to   preceding   the three   months   compared   percentage   year 2000   March 2003   with the   change in   three   facturing   production   three   facturing   facturing   production   three   facturing   facturing					
Production in the base   March 2003   ted quarte   Name   Name				(January 2003	
In the base   year 2000   January 2003   with the change in total manu three months   total ma				1	nally adjus-
Year 2000				March 2003	ted quarterly
Weights   to   March   2003   Preceding   total manu   facturing   months   production		in the base	months	compared	percentage
March   2003			January 20		
Food and food products   10,7   101,7   +1,1   +0,1		(Weights)	to	preceding	total manu-
Food and food products			March 20		
Beverages				months)	production 1/
Beverages	Food and food products	107	101 7	±1 1	±0 1
Total textiles	·				-
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   +0,0     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     Glass and glass products   1,0   116,6   +0,7   +0,0     Other non-metallic mineral   products   3,1   120,4   -3,1   -0,1     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				•	
Tanning and dressing of leather			-	•	-
Footwear					
Wood and products of wood					
Paper and paper products					
Total publishing and printing					
Coke and refined petroleum   products   4,2   93,1   -8,5   -0,4   -0,0     Basic 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   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					
products		4,1	94,5	+1,1	+0,1
Basic chemicals					
Other chemical products			-	•	
Rubber products					
Plastic products	·			•	
Glass and glass products			-	•	
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			-	•	
products   3,5   102,1   -7,2   -0,2		1,0	116,6	+0,7	+0,0
Basic iron and steel products   7,6					
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				•	
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		7,6	114,2	+1,9	+0,1
Fabricated metal products					
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			100,0		+0,0
Electrical machinery, apparatus   3,4   102,7   -2,1   -0,1   Radio, television and					
Radio, television and			113,3	-7,5	-0,4
communication apparatus   1,0	Electrical machinery, apparatus	3,4	102,7	-2,1	-0,1
Professional equipment   0,5   132,7   +7,9   +0,0	Radio, television and				
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	communication apparatus	1,0	80,8	-0,4	-0,0
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	Professional equipment	0,5	132,7	+7,9	+0,0
Other transport equipment	Motor vehicles; trailers;				
Furniture 1,6 102,8 -7,6 -0,1	parts and accessories	8,0	104,8	-3,6	-0,3
Furniture 1,6 102,8 -7,6 -0,1	Other transport equipment	1,0	100,9	-15,6	-0,2
Other manufacturing divisions 2,6 101,3 +0,3 +0,0	Furniture	1,6			-0,1
	Other manufacturing divisions	2,6	101,3	+0,3	+0,0
Total		100.0	106.3	_1 0	

<sup>1/</sup> 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.

## Adjustment of the base period of the index of physical volume of manufacturing production from 1995=100 to 2000=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 –R983 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 +R854 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 +R657 million) divisions (cf. table C).

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

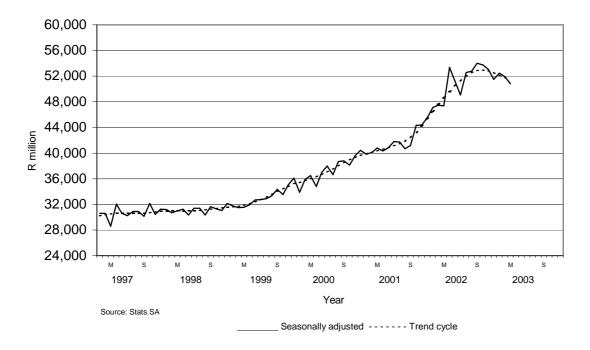
	Seaso	onal	ly	Percent	age	Differe	nce in
Manufacturing	adj	uste	đ	chame	je	season	nally
Divisions	sa	les		betwee	en	adju:	sted
	Januar	y :	2003	October	2002	sale	s of
	to			to		manufact	turing
	March	:	2003	December	2002	divis	ions
	1			and	i	betwe	een
	1			January	2003	October	2002
	1			to	)	to	
	1			March	2003	December	r 2002
İ	İ			İ		and	i .
İ	İ			İ		January	2003
İ	İ			İ		to	
İ	İ			İ		March	2003
İ	į R	000		İ		į R'	000
Food and food products			112	-0,5		106	
Beverages			519	-0,4		28	
Total textiles	3	383	410	-3,4		119	938
Total Wearing apparel	3	406	399	+1,0		35	346
Tanning and dressing of leather	1	794	857	-2,3		19	104
Footwear	1	581	267	-3,7		22	205
Wood and products of wood	3	529	695	+4,6		154	310
Paper and paper products	7	431	062	+1,2		88	146
Total publishing and printing	3	521	475	-2,1		75	441
Coke and refined petroleum	1						
products	10	573	862	-6,9		781	383
Basic chemicals	7	485	171	-1,6		123	499
Other chemical products	j 9	155	704	+1,4		128	916
Rubber products	1	627	023	-9,0		160	571
Plastic products	j 3	965	668	-0,9		35	631
Glass and glass products	İ	846	397	+2,0		16	829
Other non-metallic mineral	İ						
products	3	773	452	-3,0		116	959
Basic iron and steel products	13	373	312	+6,4		800	424
Basic precious and non-ferrous	İ						
metal products	4	975	682	-10,5		586	371
Fabricated metal products	8	746	823	-4,1		370	012
Total machinery and equipment	6	862	802	-2,6		183	464
Electrical machinery, apparatus	4	246	479	-4,8		214	310
Radio, television and	İ			•			
communication apparatus	j 1	292	013	-2,1		27	490
Professional equipment	i	540	056	+1,6		8	
Motor vehicles; trailers;	i			, -			
parts and accessories	j 19	433	140	-4,8		983	472
Other transport equipment	i		578	-13,9		159	
Furniture	1		117	-3,0		57	
Other manufacturing industries	:		904	-4,5		203	
	-i						
Total	155	175	978	-2,0		3 143	689
•				•			

155 175 970 -270 5 145 005

Table C - Contribution of the manufacturing divisions to total value of sales of manufactured products  $% \left( 1\right) =\left( 1\right) \left( 1\right)$ 

	Percent	age	Percent	age	Contribution	Differ	ence
Manufacturing	contribut	cion	chang	e	(percentage	in sale	s of
_	to total	value	betwe	en	points) to	manufac	turin
	of sales	of	January	2002	the percen-	divis	ions
	manufacti	ıred	to		tage change	betw	reen
	product	s	March	2002	in the total	January	200
	January	2002	and		value of	į to	)
	to		January	2003	sales of	March	200
	March	2002	to		manufactured	and	l
	ĺ		March	2003	products 1/	January	200
	İ		İ		İ	į to	•
	I		I			March	200
	İ		ĺ		İ	İ	
	İ		İ		İ	İ	
	İ		İ		İ	R'000	)
Food and food products	13,3		11,8		1,6	2 129	
Beverages	4,5		14,1		0,6	854	
Total textiles	2,1		7,1		0,1	201	
Total Wearing apparel	1,9		19,3		0,4	490	
Tanning and dressing of leather			7,3		0,0	52	
Footwear	0,3		9,0		0,0	38	384
Wood and products of wood	2,0		21,4		0,4	579	520
Paper and paper products	5,1		3,8		0,2	268	970
Total publishing and printing	2,2		11,5		0,3	348	099
Coke and refined petroleum	l						
products	7,3		0,9		0,1	87	748
Basic chemicals	5,3		0,7		0,0	47	379
Other chemical products	5,9		9,6		0,6	771	467
Rubber products	1,2		-0,3		-0,0	-4	588
Plastic products	2,4		15,6		0,4	512	408
Glass and glass products	0,5		8,3		0,0	58	127
Other non-metallic mineral	ĺ						
products	2,3		12,5		0,3	386	940
Basic iron and steel products	7,9		22,2		1,8	2 374	595
Basic precious and non-ferrous	İ						
metal products	3,4		-3,0		-0,1	-138	701
Fabricated metal products	5,4		12,8		0,7	945	282
Total machinery and equipment	4,3		12,3		0,5	726	327
Electrical machinery, apparatus	2,8		8,0		0,2	303	977
Radio, television and	İ						
communication apparatus	0,8		30,9		0,2	336	068
Professional equipment	0,3		12,7		0,0	59	985
Motor vehicles; trailers;	İ						
parts and accessories	13,3		3,6		0,5	656	520
Other transport equipment	0,8		-6,6		-0,1	-75	176
Furniture	1,1		5,5		0,1	79	901
Other manufacturing divisions	3,0		3,7		0,1	149	343
	ļ						
Total	100,0		9,0		9,0	12 241	017

<sup>1/</sup> 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.



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## Notes

Forthcoming issues	Issue	Expected release date
	April 2003 May 2003 June 2003 July 2003 August 2003	10 June 2003 8 July 2003 12 August 2003 9 September 2002 7 October 2003
	September 2003	11 November 2003
Purpose of the survey	covering a sample of p establishments operating in results of this survey are	g Production and Sales Survey is a country-wide sample survey private establishments, public corporations and government at the manufacturing industry in the South African economy. The used to calculate physical volume of manufacturing production te the Gross Domestic Product (GDP) to monitor and develop

### **Additional information**

#### **Explanatory notes**

#### Introduction

- 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.
- 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.
- 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.

#### Scope of the survey

- 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.

#### Classification

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).

#### Statistical unit

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).

#### Weighting

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.).

#### Re-basing

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.

## Survey methodology and 9 design

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.

The survey is collected by mail each month from a sample of approximately 2 400 manufacturing establishments.

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

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.

**Benchmarking** 

- 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.
- 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 15 total manufacturing industry

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.

#### Seasonal adjustment

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.

#### Trend cycle

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.

#### Reliability of estimates

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

#### Historical data

- 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.

#### **Related publications**

- 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.

#### **Unpublished statistics**

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.

#### **Rounding-off of figures**

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.

#### Pre-release policy

- 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.

## Symbols and abbreviations

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

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	%
wantuacturing major divisions	No. of establishments	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	2 290	77,2

#### Glossary

#### **Enterprise**

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.

#### Establishment

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.

# Index of physical volume of manufacturing production

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.

#### **Industry**

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

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

#### Intermediate consumption

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

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

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.

Weight

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.

P3041.2

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

Base 2000 = 100

Month	1997	1998	1999	2000	2001	2002	2003
				Actual indices			
J	85,3	85,8	83,6	85,2	89,5	92,7	93,6
F	99,1	97,2	93,7	98,7	102,0	104,5	105,5
M	98,4	98,9	97,9	104,8	107,3	109,6	108,8
A	100,9	92,3	90,7	89,0	94,6	105,3	
M	101,7	96,8	95,9	99,9	100,8	110,7	
J	100,9	99,6	94,8	102,1	105,0	106,7	
J	103,9	99,9	98,3	100,1	102,7	109,9	
A	101,9	95,6	97,7	102,5	102,6	111,9	
s	104,3	102,3	100,9	104,8	104,0	113,1	
0	115,2	106,9	107,3	109,8	115,5	120,6	
N	107,9	105,5	109,9	113,6	118,1	121,1	
D	83,5	81,8	86,3	89,5	91,3	92,6	
rear	100,3	96,9	96,4	100,0	102,8	108,2	
Year	100,3	96,9		100,0 easonally adju		108,2	
Year	100,3	96,9				108,2	107,6
		· ·	s	easonally adju	sted indices		107,6 106,5
J	100,6	100,4	s S 97,1	easonally adju	sted indices	106,2	
J	100,6	100,4 98,7	97,1 95,1	easonally adju 97,9 100,0	102,5 103,2	106,2 105,4	106,5
Ј F М	100,6 100,9 95,6	100,4 98,7 96,1	97,1 95,1 95,1	easonally adju 97,9 100,0 101,4	102,5 103,2 103,4	106,2 105,4 105,4	106,5
J   F   M   A	100,6 100,9 95,6 106,2	100,4 98,7 96,1 97,1	97,1 95,1 95,1 95,4	easonally adju 97,9 100,0 101,4 93,9	102,5 103,2 103,4 100,2	106,2 105,4 105,4 112,1	106,5
J   F   M   A	100,6 100,9 95,6 106,2 101,2	100,4 98,7 96,1 97,1 96,3	97,1 95,1 95,1 95,4 95,6	97,9 100,0 101,4 93,9 99,5	102,5 103,2 103,4 100,2 100,4	106,2 105,4 105,4 112,1 110,4	106,5
J F M A M	100,6 100,9 95,6 106,2 101,2 99,7	100,4 98,7 96,1 97,1 96,3 98,5	97,1 95,1 95,1 95,4 95,6 93,8	97,9 100,0 101,4 93,9 99,5 100,8	102,5 103,2 103,4 100,2 100,4 103,8	106,2 105,4 105,4 112,1 110,4 105,5	106,5
J F M A J J	100,6 100,9 95,6 106,2 101,2 99,7 101,9	100,4 98,7 96,1 97,1 96,3 98,5 98,2	97,1 95,1 95,4 95,6 93,8 96,9	97,9 100,0 101,4 93,9 99,5 100,8 98,9	102,5 103,2 103,4 100,2 100,4 103,8 101,8	106,2 105,4 105,4 112,1 110,4 105,5 109,0	106,5
J   F   M   A   M   J   J   A	100,6 100,9 95,6 106,2 101,2 99,7 101,9	100,4 98,7 96,1 97,1 96,3 98,5 98,2 93,8	97,1 95,1 95,4 95,6 93,8 96,9	97,9 100,0 101,4 93,9 99,5 100,8 98,9 101,0	102,5 103,2 103,4 100,2 100,4 101,8 101,8	106,2 105,4 105,4 112,1 110,4 105,5 109,0 110,1	106,5
J F M A M J J A S	100,6 100,9 95,6 106,2 101,2 99,7 101,9 99,5	100,4 98,7 96,1 97,1 96,3 98,5 98,2 93,8 98,0	97,1 95,1 95,1 95,4 95,6 93,8 96,9 96,2	97,9 100,0 101,4 93,9 99,5 100,8 98,9 101,0 101,2	102,5 103,2 103,4 100,2 100,4 103,8 101,8 101,1	106,2 105,4 105,4 112,1 110,4 105,5 109,0 110,1	106,5

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

Base 2000 = 100

Advisions   Amazon   Pebruary   March   Pebruary	Manufacturing	I 			ual indice			.ly adjusted indices		
	divisions	į	i i	March	  February				   March	
Next		:	: :				2002	!	3	
Meat, fish, fruit etc.	Food and food products	10,7	1101,6	100,2	99,1	97,8	ı	106,3	99,3	
Severages	Meat, fish, fruit etc.	2,8	113,1	115,0	115,8					
Severages	Dairy products	1,4	100,7	108,6	94,6	101,2	102,6	97,6	95,2	
Severages		2,1	113,6	116,2	94,8			101,8	102,4	
Severages	<del>-</del>	4,4	88,7	80,5	91,7	79,5	89,7			
Waering apparel 0,8 111,2 112,5 112,6 115,7 102,9 115,0 101,5 92,9 115,0 101,5 92,9 115,0 0 92,6 Samiling and dressing of leather 0,4 96,9 97,3 87,0 82,7 91,8 85,2 78,2 800d and products of wood 1,9 110,6 114,5 112,9 118,8 109,0 112,8 113,6 Samilling and planing of wood 0,8 108,3 115,3 109,5 118,3 107,1 106,7 106,7 106,7 109,7 Products of wood 1,2 112,1 113,9 115,1 119,2 110,2 116,7 116,7 20per and paper products 5,3 103,1 110,5 92,6 101,9 106,2 98,2 97,8 101,1 106,2 109,2 106,2 98,2 97,9 101,3 106,2 98,2 97,9 101,3 106,2 98,2 97,9 101,3 101,5 92,6 101,9 106,2 98,2 97,9 101,1 106,2 106,2 98,2 97,9 101,1 106,2 106,2 98,2 97,9 101,1 106,2 106,2 98,2 97,1 98,5 92,2 95,8 94,8 101,8 90,8 99,1 97,1 106,2 98,6 95,4 94,3 101,8 90,8 99,1 97,1 106,2 98,6 95,4 94,3 101,8 90,8 99,1 97,1 106,2 98,6 95,4 94,3 101,8 90,8 99,1 97,1 106,2 98,6 95,4 94,3 101,8 90,8 99,1 97,1 106,2 98,6 95,4 94,3 101,8 109,8 99,1 97,1 106,2 98,6 95,4 94,3 101,8 109,8 99,1 97,1 106,2 98,6 95,4 94,3 101,8 109,8 99,1 97,1 106,2 98,6 95,4 94,3 101,8 109,8 109,1		4,6	112,4	118,8	116,6	130,1	109,5	116,0		
Waering apparel 0,8 111,2 112,5 112,6 115,7 102,9 115,0 101,5 92,9 115,0 101,5 92,9 115,0 0 92,6 Samiling and dressing of leather 0,4 96,9 97,3 87,0 82,7 91,8 85,2 78,2 800d and products of wood 1,9 110,6 114,5 112,9 118,8 109,0 112,8 113,6 Samilling and planing of wood 0,8 108,3 115,3 109,5 118,3 107,1 106,7 106,7 106,7 109,7 Products of wood 1,2 112,1 113,9 115,1 119,2 110,2 116,7 116,7 20per and paper products 5,3 103,1 110,5 92,6 101,9 106,2 98,2 97,8 101,1 106,2 109,2 106,2 98,2 97,9 101,3 106,2 98,2 97,9 101,3 106,2 98,2 97,9 101,3 101,5 92,6 101,9 106,2 98,2 97,9 101,1 106,2 106,2 98,2 97,9 101,1 106,2 106,2 98,2 97,9 101,1 106,2 106,2 98,2 97,1 98,5 92,2 95,8 94,8 101,8 90,8 99,1 97,1 106,2 98,6 95,4 94,3 101,8 90,8 99,1 97,1 106,2 98,6 95,4 94,3 101,8 90,8 99,1 97,1 106,2 98,6 95,4 94,3 101,8 90,8 99,1 97,1 106,2 98,6 95,4 94,3 101,8 90,8 99,1 97,1 106,2 98,6 95,4 94,3 101,8 109,8 99,1 97,1 106,2 98,6 95,4 94,3 101,8 109,8 99,1 97,1 106,2 98,6 95,4 94,3 101,8 109,8 99,1 97,1 106,2 98,6 95,4 94,3 101,8 109,8 109,1		2,9	111,6	117,9	101,8	105,8	110,1	101,4		
Waering apparel 0,8 111,2 112,5 112,6 115,7 102,9 115,0 101,5 92,9 115,0 101,5 92,9 115,0 0 92,6 Samiling and dressing of leather 0,4 96,9 97,3 87,0 82,7 91,8 85,2 78,2 800d and products of wood 1,9 110,6 114,5 112,9 118,8 109,0 112,8 113,6 Samilling and planing of wood 0,8 108,3 115,3 109,5 118,3 107,1 106,7 106,7 106,7 109,7 Products of wood 1,2 112,1 113,9 115,1 119,2 110,2 116,7 116,7 20per and paper products 5,3 103,1 110,5 92,6 101,9 106,2 98,2 97,8 101,1 106,2 109,2 106,2 98,2 97,9 101,3 106,2 98,2 97,9 101,3 106,2 98,2 97,9 101,3 101,5 92,6 101,9 106,2 98,2 97,9 101,1 106,2 106,2 98,2 97,9 101,1 106,2 106,2 98,2 97,9 101,1 106,2 106,2 98,2 97,1 98,5 92,2 95,8 94,8 101,8 90,8 99,1 97,1 106,2 98,6 95,4 94,3 101,8 90,8 99,1 97,1 106,2 98,6 95,4 94,3 101,8 90,8 99,1 97,1 106,2 98,6 95,4 94,3 101,8 90,8 99,1 97,1 106,2 98,6 95,4 94,3 101,8 90,8 99,1 97,1 106,2 98,6 95,4 94,3 101,8 109,8 99,1 97,1 106,2 98,6 95,4 94,3 101,8 109,8 99,1 97,1 106,2 98,6 95,4 94,3 101,8 109,8 99,1 97,1 106,2 98,6 95,4 94,3 101,8 109,8 109,1		1,7	110,4	114,7	102,1	106,5	107,3	102,0		
Waering apparel 0,8 111,2 112,5 112,6 115,7 102,9 115,0 101,5 92,9 115,0 101,5 92,9 115,0 0 92,6 Samiling and dressing of leather 0,4 96,9 97,3 87,0 82,7 91,8 85,2 78,2 800d and products of wood 1,9 110,6 114,5 112,9 118,8 109,0 112,8 113,6 Samilling and planing of wood 0,8 108,3 115,3 109,5 118,3 107,1 106,7 106,7 106,7 109,7 Products of wood 1,2 112,1 113,9 115,1 119,2 110,2 116,7 116,7 20per and paper products 5,3 103,1 110,5 92,6 101,9 106,2 98,2 97,8 101,1 106,2 109,2 106,2 98,2 97,9 101,3 106,2 98,2 97,9 101,3 106,2 98,2 97,9 101,3 101,5 92,6 101,9 106,2 98,2 97,9 101,1 106,2 106,2 98,2 97,9 101,1 106,2 106,2 98,2 97,9 101,1 106,2 106,2 98,2 97,1 98,5 92,2 95,8 94,8 101,8 90,8 99,1 97,1 106,2 98,6 95,4 94,3 101,8 90,8 99,1 97,1 106,2 98,6 95,4 94,3 101,8 90,8 99,1 97,1 106,2 98,6 95,4 94,3 101,8 90,8 99,1 97,1 106,2 98,6 95,4 94,3 101,8 90,8 99,1 97,1 106,2 98,6 95,4 94,3 101,8 109,8 99,1 97,1 106,2 98,6 95,4 94,3 101,8 109,8 99,1 97,1 106,2 98,6 95,4 94,3 101,8 109,8 99,1 97,1 106,2 98,6 95,4 94,3 101,8 109,8 109,1		1 1,2	1113,3	122,5	101,3	104,7	114,0	100,6		
Wearing apparel		1 06	1111 2	104,3	114,6	104,5	94,6	114,4		
Tanning and dressing of leather O, 4 96,9 97,3 87,0 82,7 91,8 85,2 78,2										
No.   No.										
Nood and products of wood   1,9   110,6   114,5   112,9   118,8   109,0   112,8   113,6   113,5   109,15   118,3   109,10   112,8   113,6   109,7   Products of wood   1,2   112,1   113,9   115,1   119,2   110,2   116,7   116,7   116,1   119,2   110,2   116,7   116,1   119,2   110,2   116,7   116,1   119,2   110,2   116,7   116,1   119,2   110,2   116,7   116,1   119,2   110,2   116,7   116,1   119,2   110,2   116,7   116,1   119,2   110,2   116,7   116,1							72.8	78.3		
Sawmilling and planing of wood   0,8   108,3   115,3   109,5   118,3   107,1   106,7   109,7   Products of wood   1,2   112,1   113,9   115,1   119,2   110,2   116,6   116,7   116,							109.0	112.8		
Products of wood   1,2   112,1   113,9   115,1   119,2   110,2   116,7   116,1   2   2   2   2   3   3   3   10   1   1   1   1   1   1   1   1		0,8	108,3	115,3	109,5	118,3	107,1	106,7		
Printing, recorded media		1,2	112,1	113,9	115,1	119,2				
Printing, recorded media	Paper and paper products	5,3	103,1	110,5	92,6	101,9		98,2		
Printing, recorded media	Total publishing and printing	4,1	94,8	95,9	92,1	98,5	92,2	95,8	94,8	
	Publishing	1,5	91,3	96,7		92,7	94,6	89,8	90,7	
products		2,6	96,8	95,4	94,3	101,8	90,8	99,1	97,1	
Seasic chemicals	<del>-</del>									
Rubber products	•						104,9		-	
Rubber products						107,7	124,3	109,0		
Plastic products   3,1   124,3   121,7   125,1   125,7   113,3   119,8   117,1   115,6   113,8   116,1   115,7   117,8   117,8   116,1   115,7   117,8   117,8   117,8   116,1   115,7   117,8   117,9   117,1   117,9   117,1	<del>-</del>					115,0	110,5	110,8	-	
Class and glass products										
Other non-metallic mineral products	_									
metal products   3,2   100,8   101,9   95,2   104,3   98,5   97,9   100,4   Fabricated metal products   7,0   119,6   116,2   117,1   121,9   113,1   115,7   119,0   Structural metal products   2,4   116,8   106,8   115,1   116,4   105,1   118,3   115,6   Other fabricated metal product   4,6   121,1   121,0   118,1   124,7   117,3   114,4   120,8   Total machinery and equipment   5,8   121,3   137,6   114,8   132,2   120,2   110,3   115,3   General purpose machinery   2,5   109,3   119,3   94,3   114,8   111,0   92,6   107,7   Special purpose machinery   2,9   133,4   157,1   132,0   151,4   129,5   124,8   123,7   Household appliances   0,4   109,4   110,2   118,9   102,1   110,3   115,7   102,0   Electrical machinery, apparatus   3,4   103,7   103,2   107,0   106,0   98,9   106,6   101,9   For elevision and		1 1,0	1 110,9	112,1	115,6				117,0	
metal products   3,2   100,8   101,9   95,2   104,3   98,5   97,9   100,4   Fabricated metal products   7,0   119,6   116,2   117,1   121,9   113,1   115,7   119,0   Structural metal products   2,4   116,8   106,8   115,1   116,4   105,1   118,3   115,6   Other fabricated metal product   4,6   121,1   121,0   118,1   124,7   117,3   114,4   120,8   Total machinery and equipment   5,8   121,3   137,6   114,8   132,2   120,2   110,3   115,3   General purpose machinery   2,5   109,3   119,3   94,3   114,8   111,0   92,6   107,7   Special purpose machinery   2,9   133,4   157,1   132,0   151,4   129,5   124,8   123,7   Household appliances   0,4   109,4   110,2   118,9   102,1   110,3   115,7   102,0   Electrical machinery, apparatus   3,4   103,7   103,2   107,0   106,0   98,9   106,6   101,9   For elevision and		l   3.5	104.5	105.7	91.7	109.9	l l 103.8	95.1	108.1	
metal products   3,2   100,8   101,9   95,2   104,3   98,5   97,9   100,4   Fabricated metal products   7,0   119,6   116,2   117,1   121,9   113,1   115,7   119,0   Structural metal products   2,4   116,8   106,8   115,1   116,4   105,1   118,3   115,6   Other fabricated metal product   4,6   121,1   121,0   118,1   124,7   117,3   114,4   120,8   Total machinery and equipment   5,8   121,3   137,6   114,8   132,2   120,2   110,3   115,3   General purpose machinery   2,5   109,3   119,3   94,3   114,8   111,0   92,6   107,7   Special purpose machinery   2,9   133,4   157,1   132,0   151,4   129,5   124,8   123,7   Household appliances   0,4   109,4   110,2   118,9   102,1   110,3   115,7   102,0   Electrical machinery, apparatus   3,4   103,7   103,2   107,0   106,0   98,9   106,6   101,9   For elevision and	-				109.0	113.3	102.5	115.9	-	
Mathematical products   3,2   100,8   101,9   95,2   104,3   98,5   97,9   100,4		',-	,-	,-	,-	,	,-	,		
Fabricated metal products 7,0   119,6   116,2   117,1   121,9   113,1   115,7   119,0   113,1   115,7   119,0   113,1   115,7   119,0   113,1   115,7   119,0   113,1   115,7   119,0   113,1   115,7   119,0   113,1   115,1   116,4   105,1   118,3   115,6   118,1   114,4   117,3   114,4   120,8   120,4   114,8   124,7   117,3   114,4   120,8   120,4   114,8   132,2   120,2   110,3   115,3   115,6   114,8   132,2   120,2   110,3   115,3   115,3   115,0   114,8   111,0   116,3   115,3   115,3   115,3   114,8   111,0   116,3   115,3   115,3   114,8   111,0   116,3   115,3   115,3   114,8   111,0   110,3   115,3   110,3   115,3   114,8   111,0   110,3   115,3   110,3   115,4   110,4   110,2   118,9   102,1   110,3   115,7   102,0   110,3   115,7   102,0   110,3   115,7   102,0   110,3   115,7   102,0   110,3   115,7   102,0   106,0   98,9   106,6   101,9   106,0   106,0		3,2	100,8	101,9	95,2	104,3	98,5	97,9	100,4	
109,3   119,3   94,3   114,8   111,0   92,6   100,7   103,4   157,1   132,0   151,4   129,5   124,8   123,7   103,2   107,0   106,0   98,9   106,6   101,9   103,0   104,0   105,0   104,0   105,0		7,0	119,6	116,2		121,9	113,1	115,7	119,0	
109,3   119,3   94,3   114,8   111,0   92,6   100,7   103,4   157,1   132,0   151,4   129,5   124,8   123,7   103,2   107,0   106,0   98,9   106,6   101,9   103,0   104,0   105,0   104,0   105,0	Structural metal products	2,4	116,8	106,8	115,1	116,4	105,1	118,3	115,6	
109,3   119,3   94,3   114,8   111,0   92,6   100,7   103,4   157,1   132,0   151,4   129,5   124,8   123,7   103,2   107,0   106,0   98,9   106,6   101,9   103,0   104,0   105,0   104,0   105,0	Other fabricated metal product	4,6	121,1	121,0	118,1	124,7	117,3	114,4	120,8	
109,3   119,3   94,3   114,8   111,0   92,6   100,7   103,4   157,1   132,0   151,4   129,5   124,8   123,7   103,2   107,0   106,0   98,9   106,6   101,9   103,0   104,0   105,0   104,0   105,0						132,2	120,2	110,3	115,3	
Household appliances 0,4 109,4 110,2 118,9 102,1 110,3 115,7 102,0 and communication apparatus 1,0 76,8 87,8 93,4 92,1 76,5 84,5 79,9 arcs and accessories 8,0 108,8 104,3 108,4 103,9 99,7 103,1 99,7 and communication apparatus 4,5 105,5 106,8 102,4 101,2 102,5 97,2 96,9 and coessories 4,5 105,5 106,8 102,4 101,2 102,5 97,2 96,9 and coessories 3,0 114,9 99,7 119,5 108,1 97,6 114,6 106,6 and coessories 3,0 114,9 99,7 119,5 108,1 97,6 114,6 106,6 and coessories 3,0 114,9 99,7 119,5 108,1 97,6 114,6 106,6 and coessories 3,0 114,9 99,7 119,5 108,1 97,6 114,6 106,6 and coessories 3,0 114,9 99,7 119,5 108,1 97,6 114,6 106,6 and coessories 3,0 114,9 99,7 119,5 108,1 97,6 114,6 106,6 and coessories 1,0 118,2 176,1 105,9 135,1 117,0 104,3 89,2 and coessories 1,6 107,3 109,0 97,4 95,2 111,2 102,0 97,2 and coessories 2,6 102,9 78,8 102,6 81,5 80,6 101,7 84,4				119,3	94,3	114,8	111,0	92,6		
Selectrical machinery, apparatus										
Radio, television and communication apparatus 1.0 76.8 87.8 93.4 92.1 76.5 84.5 79.9 Professional equipment 0.5 120.8 116.7 134.9 133.9 114.0 132.0 131.9 Motor vehicles; trailers; parts and accessories 8.0 108.8 104.3 108.4 103.9 99.7 103.1 99.7 Motor vehicles 4.5 105.5 106.8 102.4 101.2 102.5 97.2 96.9 Bodies for motor vehicles; trailers and semi-trailers 0.5 102.8 108.2 97.3 103.7 89.1 88.8 85.2 Parts and accessories 3.0 114.9 99.7 119.5 108.1 97.6 114.6 106.6 Other transport equipment 1.0 118.2 176.1 105.9 135.1 117.0 104.3 89.2 Furniture 1.6 107.3 109.0 97.4 95.2 111.2 102.0 97.2 Other manufacturing divisions 2.6 102.9 78.8 102.6 81.5 80.6 101.7 84.4										
1,0		3,4	103,7	103,2	107,0	106,0	98,9	106,6	101,9	
Professional equipment   0,5   120,8   116,7   134,9   133,9   114,0   132,0   131,9   Motor vehicles; trailers;		10	76 0	07.0	03.4	00.1	   76 E	04 5	70.0	
Motor vehicles; trailers;						122 0				
parts and accessories         8,0         108,8         104,3         108,4         103,9         99,7         103,1         99,7           Motor vehicles         4,5         105,5         106,8         102,4         101,2         102,5         97,2         96,9           Bodies for motor vehicles;         trailers and semi-trailers         0,5         102,8         108,2         97,3         103,7         89,1         88,8         85,2           Parts and accessories         3,0         114,9         99,7         119,5         108,1         97,6         114,6         106,6           Other transport equipment         1,0         118,2         176,1         105,9         135,1         117,0         104,3         89,2           Furniture         1,6         107,3         109,0         97,4         95,2         111,2         102,0         97,2           Other manufacturing divisions         2,6         102,9         78,8         102,6         81,5         80,6         101,7         84,4		0,5	1 20,0	110,7	134,9	133,9	1 114,0	132,0	131,3	
Motor vehicles 4,5   105,5   106,8   102,4   101,2   102,5   97,2   96,9   Bodies for motor vehicles; trailers and semi-trailers 0,5   102,8   108,2   97,3   103,7   89,1   88,8   85,2   Parts and accessories 3,0   114,9   99,7   119,5   108,1   97,6   114,6   106,6   Other transport equipment 1,0   118,2   176,1   105,9   135,1   117,0   104,3   89,2   Furniture 1,6   107,3   109,0   97,4   95,2   111,2   102,0   97,2   Other manufacturing divisions 2,6   102,9   78,8   102,6   81,5   80,6   101,7   84,4		I I 8.0	  108.8	104.3	108.4	103.9	!   99.7	103.1	99.7	
Bodies for motor vehicles; trailers and semi-trailers   0,5   102,8   108,2   97,3   103,7   89,1   88,8   85,2   87,2   88,8   85,2   88,8   85,2   88,8   85,2   88,8   88,8   88,2   88,8										
trailers and semi-trailers   0,5   102,8   108,2   97,3   103,7   89,1   88,8   85,2   Parts and accessories   3,0   114,9   99,7   119,5   108,1   97,6   114,6   106,6   Other transport equipment   1,0   118,2   176,1   105,9   135,1   117,0   104,3   89,2   Furniture   1,6   107,3   109,0   97,4   95,2   111,2   102,0   97,2   Other manufacturing divisions   2,6   102,9   78,8   102,6   81,5   80,6   101,7   84,4		i -,,	,	,	,-		i,.		/-	
1,0   118,2   176,1   105,9   135,1   117,0   104,3   89,2		0,5	102,8	108,2		103,7	89,1	88,8	85,2	
1,0   118,2   176,1   105,9   135,1   117,0   104,3   89,2						108,1	97,6	114,6	106,6	
Other manufacturing divisions   2,6  102,9  78,8 102,6 81,5   80,6 101,7 84,4	Other transport equipment	1,0	118,2	176,1		135,1	117,0			
	Furniture	1,6	107,3	109,0	97,4	95,2	111,2	102,0	97,2	
l I						-				
		I					!			

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

Month	:	L997		:	1998		19	999		:	2000		:	2001		:	2002	*		2003		
										Actual	l va	lues										_
 J	25	254	480	25	913	926	26	362	762	28	647	234	33	988	164	40	272	591	44	584	208	*
F	29	866	793	29	901	544	30	551	283	34	961	840	39	187	078	46	539	563	50	949	266	
M	29	866	272	32	190	538	32	737	212	38	039	203	42	683	525				52	746	778	1
A				29					208				37									
M	30	626	091	30	352	835	32	680	898	37	038	716	41	146	142	51	640	018				
J		575		31					424				42									
J		169		31					293				41				790	716				
A			042	30				586	437				41				396	381				
S				32					435				42									
0				34					689				48									
N	•									43												
D	28	128	922	29	016	347	32	992	528	37	256	576	42	207	610	47	485	481				
Year	368	283	280	373	568	657	397	608	593	448	106	023	502	499	271	613	536	837				
										Seasona		adjı	sted	valı	ıes							
	30	496	159	31	050	664	31	399	714	33	848	844	39	706	258	47	112	587	 52	450	249	,
F	j 30	493	649	30	590	478	31	308	800	35	744	381	39	984	824	47	456	295	51	901	357	,
M	28	715	986	30	970	061	31	535	780	36	538	334	41	032	086	47	387	908	50	824	373	1
A	32	095	995	31	482	597	32	285	775	34	713	273	40	348	643	53	373	491				
M	30	701	884	30	373	352	32	676	659	36	865	692	40	848	124	51	193	901				
J	30	219	628	31	241	392	32	510	821	37	859	750	41	765	956	49	053	157				
J	31	163	194	31	847	444	33	499	131	36	592	751	41	700	172	52	549	648				
A	30	752	923	30	351	192	33	219	850	38	569	467	40	677	745	52	749	549				
S	30	169	435	31	783	183	34	647	904	38	779	244	41	226	987	54	021	893				
	j 32	177	965	31	403	835	33	778	513	38	042	755	44	332	516	53	734	955				
0	J 22																					
O N		309	947	30	789	539	34	830	866	39	476	457	44	353	475	53	062	633				

<sup>\*</sup> Revised 1/ Preliminary

P3041.2 Table 4 - Value of sales of manufactured products according to manufacturing divisions and major groups (R'000)

Wannife at	1			!			ACI	cuaı	val	ues								ted '			
Manufacturing divisions		Year			arch		Fel	brua	ry	   Ма	arch	1/	1	Marc	h	Fe	ebru	ary	Ma	arch	
and major groups		2002	*	1	 2002		 		2	 003			1	2002		 		200			
	i			·																	
Food and food products		690				847			203			458		500	438			124		033	
Meat, fish, fruit etc. Dairy products		328 221		2		888 045	2		044 114	2		641 429	2		039 849	2		146 021	2	274 820	
Grain mill products		465		1 1		096	1		066	2		003	1 1		357	2		434	2	026	
Other food products	22					818			979			385			193			523		912	
Beverages		831				583			061			838			233			600		483	
Total textiles	13	425	652	1	124	622	1	049	343	1	127	432	1	026	441	1	075	883	1	025	880
Textiles	8	654	162	ĺ		637		708	470			400	ĺ		668		714	553		662	823
Other textile products		771		1		985			873			032	l		773			330		363	
Total wearing apparel		404		1		865	1			1			ļ			1		942	1		
Knitted, crocheted articles		200		!		511			826			061	!		273			930		186	
Wearing apparel		204		-		354 262			880 591			116 669			225 129			012 694		863 240	
Fanning and dressing of leather Footwear		310 185		1		421			722			201	1		031			748		167	
Wood and products of wood		676		1		542	1		462			246	l		478	1		718	1		
Sawmilling and planing of wood		496		i		286	_		939	_		533	i		966	_		622	_	311	
Products of wood		180	005	İ	750	256		765	523		893	713	İ	717	512		815	096		859	002
Paper and paper products	29	798	377	2	552	200	2	362	849	2	603	414	2	383	650	2	473	763	2	448	478
Total publishing and printing		902		1		467	1		896	1		570	1		138	1		273	1	187	
Publishing		309		ļ		503			378			558	!		031			525		472	
Printing, recorded media	8	593	228	!	639	964		707	518		738	012	!	621	107		724	748		714	941
Coke and refined petroleum	1 45	400	216	,	260	722	_	070	078	-	700	249	,	400	027	,	101	452	,	969	400
products Basic chemicals		408 234				631			961			114			239			683		580	
Other chemical products		473				600	_		386	_		864			421			281	_	040	
Rubber products		678		~		574	-		903	,		827	¦ ~		120	-		505	-	475	
Plastic products		136		1		321	1		032	1		584	1		248	1		802	1	282	
Glass and glass products Other non-metallic mineral	3	291	669	İ	243	964		283	568		257	608	İ	264	076		284	688		279	350
products		496				933						747			340			276		296	
Basic iron and steel products Basic precious and non-ferrous	İ	571		İ		861						604	İ		326			491		326	
metal products		725				379			177			157			862			168		539	
Fabricated metal products Structural metal products		231 580		2		053 187	2		995 333			615 096	2		239 609	2		235 708	2	875 927	
Other fabricated metal product				1			2		662			519	1		630	2		527	1		
Total machinery and equipment		790				080			123			174			484			617		321	
General purpose machinery		502		i -		007	_		907			513	i -		506			239		017	
Special purpose machinery		556		j 1		926	1		186			782	İ		483			753		086	
Household appliances		732		1		147			030			879			494			626		216	
Electrical machinery, apparatus	16	926	563	1	485	289	1	456	659	1	498	651	1	382	375	1	413	086	1	388	727
Radio, television and	.			!									!								
communication apparatus		503		-		632			243			036			922			402		403	
Professional equipment Motor vehicles; trailers;	2	028	90T	1	TOT	874		т/8	180		T90	546	1	157	487		1/4	619		186	092
parts and accessories	80	372	512	6	543	642	6	580	235	6	399	225	5	991	206	6	253	269	5	878	854
Motor vehicles		373				464			725			010						963		947	
Bodies for motor vehicles;	İ			İ									İ								
trailers and semi-trailers		115		ĺ		761		172	861		200	910	ĺ	152	259		175	362		173	549
Parts and accessories		884		1		417	1		649	1		305	1		975	1		943	1	758	
Other transport equipment		370		!		461			810			816	!		247			542		295	
Furniture Other manufacturing divisions		339 730		1		341 915	1		355	1		194 762			313	1		080 417	1	604 273	
	j			·									<u>.</u>								
Total	613	536	<b>8</b> 37	49	227	081	50	949	266	52	746	778	47	387	908	51	901	357	50	824	373

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

Selected	 		Ac	tual v	values 		 -	Sea	sonally a	djuste 	ed values	
manufacturing subgroups	   Mare	ch	   Febru	ary	   March	1/	   Marc	ı	   Febr	uary	   Mar	ch
	20	02	<u>i</u>	2	2003		200	2	i 	200	)3	
Spinning, weaving and												
finishing of textiles	278	796	409	161	391	158	272	255	402	607	381	543
Tents, tarpaulins, sails							1					
and other canvas goods and							1					
automotive textile goods		714		526		613		706		637		597
Other textile articles	67	900	120	252	113	728	65	177	111	997	110	121
Knitted and crotcheted							1					
fabrics and articles		919	130	343	129	916	130	190	125	975	128	040
Wearing apparel	786	231	842	135	836	002	767	792	863	260	814	208
Sawmilling and preserving							ļ					
of timber	20	622	27	683	30	380	19	668	27	032	29	118
Veneer sheets, plywood,	!						ļ					
laminboard, etc.	22	063	28	876	27	704	23	023	30	697	28	965
Builders' carpentry	!						ļ					
and joinery		766		000		229		370		411		579
Pulp, paper and paperboard	238	674	244	469	160	079	310	538	277	342	209	740
Corrugated paper and paper-	ļ						ļ					
board and containers		780		335		934	1	288		084		863
Paints, varnishes and coatings		999		106		603		442		725		703
Basic iron and steel products	3 690		4 987		4 848		3 748		5 021		4 936	
Steel pipe and tube mills	236	356	409	608	392	534	259	464	443	830	431	516
Basic precious and non-	!						!					
ferrous metal products	1 718		1 848		1 579		1 752		1 908		1 613	
Metal structures, parts	1 227	680	1 299	722	1 196	101	1 303	618	1 453	128	1 275	741
Cutlery, hand tools and	!						!					
general hardware	29	180	24	428	17	275	31	102	20	528	18	636
Metal containers, e.g. cans	!						!					
and tins		127		637		174		304		547		205
Cables, wire products, springs		374		346		593		897		328		619
Metal fasteners		120		771		024		378		470		669
All other metal products		781		656		396		355		536		879
Domestic appliances	26	222	24	350	26	168	28	559	27	411	28	843
Electric motors, generators								837			=	
and transformers		850		807		455				040		374
Insulated wire and cables	305	718	374	774	375	797	306	034	386	738	379	203
Accumulators, primary cells		700	_	350	-	704	_	005	_	100	-	364
and primary batteries	9	723	6	350	5	704	9	085	6	196	5	364
Television, radio and	0.051	016	1 0	205		100	0.1	-06	1 0 1 0	000		625
communication apparatus	2 274		1 941		2 091		2 117		1 848		1 928 3 412	
Motor vehicles Parts and accessories for	2 337	071	3 177	422	3 341	98T	2 362	609	3 295	025	3 412	038
Parts and accessories for motor vehicles	1 400	C40	226	F01	202	0.00	1 450	220	254	E03	220	164
motor vehicles Furniture	!	649 722		501		869 248		228 557		593 801		164 909
rurniture	1 315	122	207	368	193	248	1 341	357	∠31	SOT	207	909

divisions and major groups before re-basing

Base 1995 = 100

				Base 1995 = 100
Manufacturing divisions and major groups	Weights			Average indices for
	1990-1992	1993-1995	1996-2002	the year 2000
Trade and free description				before re-basing
Food and food products  Meat, fish, fruit etc.	10,97 2,93	12,33	10,71	99,1 111,7
		3,20	2,83	1
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 Total textiles	4,83	5,26	4,60	92,6
	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

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