

Key figures as at the end of July 2000

Actual estimates	July 2000	% change between July 1999 and July 2000	% change between May 1999 to July 1999 and May 2000 to July 2000	% change between January 1999 to July 1999 and January 2000 to July 2000
Physical volume of manufacturing production index (1995=100)	107,6	+3,2	+6,1	+4,7
Total value of sales of manufactured products (R million)	36 496,0	+9,3	+13,0	+12,1

Seasonally adjusted estimates	July 2000	% change between June 2000 and July 2000	% change between February 2000 to April 2000 and May 2000 to July 2000
Physical volume of manufacturing production index (1995=100)	104,4	-4,0	+2,6
Total value of sales of manufactured products (R million)	36 324,3	-4,6	+4,4

Key findings as at the end of July 2000

MANUFACTURING PRODUCTION INCREASES

Manufacturing production for the last three months up to July 2000 reflected an increase of 2,6% after seasonal adjustment compared with the previous three months. Higher manufacturing production was reported by 19 of the 27 manufacturing major divisions.

The major contributors to the increase of 2,6% after seasonal adjustment in the total manufacturing production were the basic chemicals (+0,9 of a percentage point), followed by paper and paper products (+0,4 of a percentage point), machinery and equipment (+0,4 of a percentage point), fabricated metal products (+0,3 of a percentage point), food and food products (+0,2 of a percentage point), coke and refined petroleum products (+0,2 of a percentage point) and motor vehicle (+0,2 of a percentage point) divisions (cf. Table A).

The total value of sales of manufactured products reflected an increase of 4,4% (R4 698 million) after seasonal adjustment for the three months up to July 2000 compared with the previous three months. The largest increases were reported by the coke and refined petroleum products (+11,8% or R834 million), basic chemicals (+11,4% or R571 million), fabricated metal products (+8,8% or R508 million), machinery and equipment (+6,8% or R312 million), motor vehicle (+6,3% or R761 million) and paper and paper products (+6,3% or R348 million) divisions during this period.

Table A - Contribution of the production by the different manufacturing divisions to the total manufacturing production (Base 1995=100)

Manufacturing Divisions	Percentage contribution to the total manufacturing production in the base year 1995 (Weights)	Average seasonally adjusted production index for the three months May 2000 - Jul. 2000	Quarterly percentage change (May 2000 - Jul. 2000 compared with the preceding three months)	Contribution (percentage points) to the seasonally adjusted quarterly percentage change in total manufacturing production 1/
Food and food products	10,7	98,6	+1,9	+0,2
Beverages	4,6	98,2	+0,4	+0,0
Total textiles	2,9	96,0	+0,1	+0,0
Total Wearing apparel	3,6	82,6	-2,9	-0,1
Tanning and dressing of leather	0,4	135,4	+13,3	+0,1
Footwear	0,9	66,0	-6,1	-0,1
Wood and products of wood	1,9	122,6	+5,3	+0,1
Paper and paper products	5,3	107,9	+6,9	+0,4
Total publishing and printing	4,1	90,6	-3,3	-0,1
Coke and refined petroleum products	4,2	109,7	+5,7	+0,2
Basic chemicals	4,5	143,5	+20,5	+0,9
Other chemical products	6,2	100,5	-2,3	-0,1
Rubber products	1,4	101,6	+9,8	+0,1
Plastic products	3,1	88,1	+1,0	+0,0
Glass and glass products	1,0	88,3	+3,4	+0,0
Other non-metallic mineral products	3,5	88,6	+0,3	+0,0
Basic iron and steel products	7,6	118,1	-0,9	-0,1
Basic precious and non-ferrous metal products	3,2	159,3	-0,8	-0,0
Fabricated metal products	7,0	101,5	+4,3	+0,3
Total machinery and equipment	5,8	100,6	+7,4	+0,4
Electrical machinery, apparatus	3,4	102,0	+2,7	+0,1
Radio, television and communication apparatus	1,0	112,0	-14,1	-0,1
Professional equipment	0,5	78,3	+5,7	+0,0
Motor vehicles; trailers; parts and accessories	8,0	120,0	+2,2	+0,2
Other transport equipment	1,0	110,3	+1,1	+0,0
Furniture	1,6	99,0	+5,9	+0,1
Other manufacturing industries	2,6	106,9	-0,7	-0,0
TOTAL	100,0	106,3	+2,6	+2,6

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

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Forthcoming issues	Issue	Expected release date
	August 2000	10 October 2000
	September 2000	7 November 2000
	October 2000	12 December 2000
	November 2000	9 January 2001
	December 2000	6 February 2001

Purpose of the survey

The monthly Manufacturing Production and Sales Survey is a country-wide sample survey covering a sample of private establishments, public corporations and government establishments operating in the manufacturing industry in the South African economy. The results of this survey are used to calculate physical volume of manufacturing production indices in order to estimate the gross domestic product (GDP) to monitor and develop Government policy.

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

Base 1995 = 100

Month	1994	1995	1996	1997	1998	1999	2000
Actual indices							
J	72,7	80,6	83,6	89,8	89,6	86,7	88,8
F	87,0	97,6	96,7	103,1	101,1	98,0	103,2
M	95,6	104,2	102,6	102,5	102,8	101,5	109,0*
A	82,8	91,0	96,4	105,5	96,3	94,8	93,3*
M	84,8	101,8	104,1	106,2	101,1	101,1	106,5*
J	92,4	102,4	102,9	104,9	104,5	100,5	110,4
J	92,9	101,7	104,7	108,2	104,4	104,3	107,6 1/
A	94,0	106,0	107,8	105,8	100,0	103,5	
S	100,9	106,7	105,2	108,3	106,8	107,0	
O	104,2	112,5	115,8	119,1	111,8	112,9	
N	108,2	110,7	114,4	111,7	109,8	115,5	
D	85,3	84,8	83,7	86,9	85,3	90,6	
Year	91,7	100,0	101,5	104,3	101,1	101,4	
Seasonally adjusted indices							
J	87,5	96,5	99,2	105,7	105,0	100,9	102,8
F	88,3	99,3	98,7	105,2	102,8	99,7	104,8
M	91,1	100,0	99,5	100,4	101,1	100,0	107,7
A	88,7	97,3	102,2	111,2	101,3	99,5	98,2
M	85,4	101,8	103,9	105,4	100,0	100,2	105,6
J	91,3	101,1	101,5	103,3	102,9	99,0	108,8
J	91,6	99,9	102,4	105,5	101,5	101,3	104,4
A	90,9	102,6	104,5	102,9	97,6	101,3	
S	95,8	101,5	100,2	103,2	102,1	102,6	
O	94,0	101,1	103,1	105,8	99,7	100,7	
N	97,2	99,8	103,1	101,1	99,7	105,2	
D	98,1	98,2	98,9	102,5	101,2	108,2	

* Revised

1/ Preliminary

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

Base 1995 = 100

Manufacturing divisions and major groups	Weights	Year 1999	Actual indices			Seasonally adjusted indices		
			July	June	July 1/	July	June	July
			1999	2000		1999	2000	
Food and food products	10,7	99,2	106,3	106,7	101,1	102,0	102,7	96,7
Meat, fish, fruit etc.	2,8	112,4	104,4	106,1	100,2	114,3	114,6	109,8
Dairy products	1,4	92,8	92,4	83,8	84,8	97,0	91,8	89,0
Grain mill products	2,1	93,9	102,5	94,5	90,0	96,8	95,5	85,1
Other food products	4,4	95,3	113,5	120,0	112,0	98,2	101,7	96,3
Beverages	4,6	100,8	86,1	93,6	84,0	100,3	109,1	97,8
Total textiles	2,9	91,3	105,0	102,5	101,1	96,6	99,8	93,0
Textiles	1,7	83,8	99,5	96,7	90,8	91,4	93,8	83,6
Other textile products	1,2	101,9	112,7	110,6	115,6	104,1	108,4	106,2
Total wearing apparel	3,6	88,3	91,4	80,2	71,5	89,0	91,1	69,5
Knitted, crocheted articles	0,6	82,5	85,0	85,1	72,7	81,0	82,1	69,2
Wearing apparel	3,0	89,5	92,7	79,2	71,3	90,6	92,9	69,5
Tanning and dressing of leather	0,4	122,9	116,3	122,7	125,3	121,3	124,3	131,4
Footwear	0,9	69,2	68,2	66,1	62,4	67,8	67,6	62,6
Wood and products of wood	1,9	114,1	118,6	125,8	125,7	110,7	125,2	117,7
Sawmilling and planing of wood	0,8	104,2	109,5	106,7	120,9	100,6	106,9	111,3
Products of wood	1,2	120,6	124,6	138,4	128,9	117,2	137,1	121,9
Paper and paper products	5,3	98,2	98,2	106,2	108,4	97,1	101,1	107,9
Total publishing and printing	4,1	93,1	95,9	92,0	88,4	94,7	93,4	86,9
Publishing	1,5	99,6	98,0	95,8	86,6	100,1	94,2	88,1
Printing, recorded media	2,6	89,5	94,7	89,9	89,4	91,7	92,9	86,2
Coke and refined petroleum products	4,2	106,4	105,1	112,1	111,7	105,4	110,6	112,2
Basic chemicals	4,5	126,9	134,9	136,5	140,5	137,0	141,8	142,9
Other chemical products	6,2	103,3	103,8	102,5	101,4	100,9	103,1	98,5
Rubber products	1,4	92,8	96,7	119,1	89,6	96,6	102,3	90,0
Plastic products	3,1	86,5	87,4	88,4	91,8	84,1	88,1	88,6
Glass and glass products	1,0	85,2	76,3	87,4	96,4	81,8	80,6	102,9
Other non-metallic mineral products	3,5	85,0	89,4	97,7	92,2	84,3	89,9	87,1
Basic iron and steel products	7,6	96,9	97,7	121,5	129,9	92,5	114,6	122,7
Basic precious and non-ferrous metal products	3,2	153,3	168,1	182,0	140,7	156,9	184,1	130,7
Fabricated metal products	7,0	99,1	102,7	101,9	102,1	99,4	103,3	98,4
Structural metal products	2,4	95,9	96,9	81,5	84,7	96,1	77,2	83,9
Other fabricated metal product	4,6	100,8	105,7	112,4	111,0	101,0	116,7	105,9
Total machinery and equipment	5,8	97,5	102,5	105,5	109,4	97,2	101,5	104,2
General purpose machinery	2,5	111,5	109,5	121,3	125,6	105,7	104,5	123,0
Special purpose machinery	2,9	84,4	93,0	86,7	92,3	87,3	93,4	86,2
Household appliances	0,4	105,3	128,6	143,8	132,4	115,4	142,6	117,6
Electrical machinery, apparatus	3,4	96,5	94,9	113,3	99,3	90,6	109,1	94,8
Radio, television and communication apparatus	1,0	126,9	130,9	122,1	126,8	125,0	115,2	119,3
Professional equipment	0,5	77,9	78,1	74,0	90,2	72,3	71,5	83,9
Motor vehicles; trailers; parts and accessories	8,0	102,5	108,3	131,0	127,3	103,2	121,6	121,2
Motor vehicles	4,5	97,0	103,0	126,4	119,3	98,8	112,1	114,9
Bodies for motor vehicles; trailers and semi-trailers	0,5	64,3	63,2	71,6	63,0	65,4	69,1	64,9
Parts and accessories	3,0	117,7	124,6	148,7	151,0	116,9	145,4	141,0
Other transport equipment	1,0	113,1	122,6	109,1	123,8	110,6	111,3	111,9
Furniture	1,6	102,6	97,2	106,6	97,8	97,4	101,7	98,3
Other manufacturing industries	2,6	107,7	114,6	116,3	115,3	103,4	114,2	104,8
TOTAL	100,0	101,4	104,3	110,4	107,6	101,3	108,8	104,4

* Revised

1/ Preliminary

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

Month	1994	1995	1996	1997	1998	1999	2000*
Actual values							
J	16 267 098	19 206 220	21 803 249	25 254 480	25 913 926	26 410 458	28 442 536
F	19 815 926	24 414 317	26 328 500	29 866 793	29 901 544	30 607 558	35 051 600
M	22 056 191	26 712 878	28 188 286	29 866 272	32 190 538	32 788 344	37 852 848
A	19 132 660	22 897 368	26 231 967	30 438 604	29 758 879	30 508 382	32 660 715
M	19 723 817	25 806 431	28 293 052	30 626 091	30 352 835	32 711 351	37 035 847
J	22 055 323	26 204 689	28 261 416	30 575 542	31 723 893	33 095 019	38 581 581
J	22 251 097	25 613 126	28 378 392	31 169 707	31 732 667	33 398 049	36 495 962 1/
A	21 957 670	27 064 919	29 568 761	31 400 042	30 810 619	33 707 678	
S	23 954 300	27 737 968	29 549 724	31 344 644	32 896 327	35 898 489	
O	25 209 944	29 294 559	33 070 022	35 902 602	34 970 472	37 387 455	
N	26 275 416	29 960 074	33 084 713	33 709 581	34 300 610	38 805 040	
D	20 667 319	23 877 458	26 338 721	28 128 922	29 016 347	33 013 723*	
Year	259 366 761	308 790 007	339 096 803	368 283 280	373 568 657	398 331 546	
Seasonally adjusted values							
J	19 824 479	23 567 128	26 511 261	30 676 772	31 302 097	31 841 573	34 196 502
F	20 115 687	24 777 663	26 807 620	30 507 375	30 610 052	31 413 923	35 917 341
M	20 745 339	25 286 616	26 866 381	28 699 665	30 982 972	31 613 366	36 417 540
A	20 327 058	24 282 258	27 720 899	32 079 907	31 367 380	32 156 978	34 491 900
M	20 159 458	26 151 343	28 459 790	30 745 332	30 406 269	32 810 137	37 130 810
J	21 900 009	25 978 774	28 054 570	30 285 308	31 361 902	32 760 581	38 069 901
J	22 163 579	25 515 281	28 313 977	31 052 336	31 574 583	33 184 068	36 324 310
A	21 213 540	26 203 179	28 793 066	30 709 480	30 335 313	33 289 582	
S	22 750 504	26 480 787	28 262 122	30 017 993	31 554 563	34 559 778	
O	22 679 852	26 206 652	29 547 970	32 068 070	31 186 471	33 400 224	
N	23 538 554	26 868 547	29 747 120	30 337 556	30 880 020	35 032 772	
D	23 382 105	26 817 426	29 367 394	31 042 269	31 774 632	36 498 142	

* Revised

1/ Preliminary

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

Manufacturing divisions and major groups	Year	Actual values			Seasonally adjusted values		
		July	June	July 1/	July	June	July
		1999	2000		1999	2000	
Food and food products	57 155 867*	4 760 654	5 035 142	4 734 426	4 737 903	5 100 830	4 733 610
Meat, fish, fruit etc.	17 159 161	1 387 499	1 473 881	1 417 537	1 442 657	1 533 230	1 482 006
Dairy products	7 164 653*	568 639	581 612	559 519	607 006	624 091	602 117
Grain mill products	14 871 882	1 292 071	1 321 988	1 263 882	1 242 857	1 316 043	1 218 078
Other food products	17 960 171	1 512 445	1 657 661	1 493 488	1 445 383	1 627 466	1 431 409
Beverages	20 605 141	1 571 452	1 538 367	1 540 958	1 771 956	1 840 134	1 741 465
Total textiles	9 770 275	918 766	972 971	855 820	857 302	927 399	797 134
Textiles	6 304 565	601 286	607 148	547 166	559 154	574 711	507 875
Other textile products	3 465 710	317 480	365 823	308 654	298 148	352 688	289 259
Total wearing apparel	10 994 539	924 493	864 085	846 415	936 210	999 923	854 590
Knitted, crocheted articles	1 858 591	161 228	170 155	140 116	156 965	157 651	135 885
Wearing apparel	9 135 948	763 265	693 930	706 299	779 245	842 272	718 705
Tanning and dressing of leather	2 577 530	222 723	246 191	233 530	228 978	249 215	240 570
Footwear	2 379 127	202 981	182 936	183 592	204 697	197 101	187 496
Wood and products of wood	8 386 436	714 440	757 863	803 723	675 083	748 820	759 993
Sawmilling and planing of wood	2 380 674	206 470	228 601	227 312	195 000	220 528	215 633
Products of wood	6 005 762	507 970	529 262	576 411	480 083	528 292	544 360
Paper and paper products	20 400 594	1 670 842	2 001 287	1 910 487	1 679 975	1 909 799	1 958 743
Total publishing and printing	11 664 938	971 568	982 718	998 194	962 010	1 014 485	984 152
Publishing	4 471 082	364 000	367 984	355 480	367 996	366 555	358 147
Printing, recorded media	7 193 856	607 568	614 734	642 714	594 014	647 930	626 005
Coke and refined petroleum products	20 999 687	1 691 470	2 815 043	2 620 016	1 735 208	2 691 763	2 712 029
Basic chemicals	19 872 911	1 678 349	1 847 124	1 920 633	1 677 983	1 848 808	1 897 009
Other chemical products	25 490 045	2 166 792	2 134 469	2 112 978	2 133 784	2 196 166	2 082 210
Rubber products	4 167 229	338 064	473 817	355 580	350 647	432 645	370 246
Plastic products	9 723 276	829 520	894 890	911 073	802 918	905 705	881 325
Glass and glass products	2 140 820	164 351	181 918	197 701	162 639	187 866	196 123
Other non-metallic mineral products	9 255 562	790 074	918 109	862 008	748 893	859 801	820 838
Basic iron and steel products	26 056 845	2 104 882	3 051 707	2 584 992	2 206 502	2 754 068	2 711 640
Basic precious and non-ferrous metal products	13 107 160	1 179 149	1 410 308	1 159 657	1 196 709	1 337 582	1 173 314
Fabricated metal products	23 450 896	1 904 787	2 054 340	2 088 030	1 863 066	2 029 240	2 039 394
Structural metal products	8 375 921	624 336	618 235	623 866	638 289	559 932	640 461
Other fabricated metal product	15 074 975	1 280 451	1 436 105	1 464 164	1 224 777	1 469 308	1 398 933
Total machinery and equipment	18 482 182	1 482 039	1 644 254	1 704 241	1 452 927	1 608 611	1 668 443
General purpose machinery	8 715 989	663 963	786 055	783 077	664 970	714 324	782 696
Special purpose machinery	7 839 996	619 344	642 396	717 618	611 415	679 914	706 177
Household appliances	1 926 197	198 732	215 803	203 546	176 542	214 373	179 570
Electrical machinery, apparatus	11 835 715	1 002 162	1 181 271	1 076 829	945 313	1 141 404	1 017 332
Radio, television and communication apparatus	4 441 396	409 596	387 829	374 237	398 998	354 297	359 696
Professional equipment	1 299 945	105 654	131 157	119 305	104 328	118 916	118 179
Motor vehicles; trailers; parts and accessories	42 719 836	3 836 132	4 784 929	4 369 840	3 598 721	4 543 652	4 095 657
Motor vehicles	30 465 944	2 730 266	3 459 084	3 157 187	2 549 320	3 208 359	2 951 542
Bodies for motor vehicles; trailers and semi-trailers	1 529 083	123 289	166 086	130 834	129 219	158 683	136 864
Parts and accessories	10 724 809	982 577	1 159 759	1 081 819	920 182	1 176 610	1 007 251
Other transport equipment	2 789 057	180 213	260 523	280 575	196 044	239 848	308 330
Furniture	6 356 278	581 708	551 545	516 781	553 721	570 881	490 998
Other manufacturing industries	12 208 259	995 188	1 276 788	1 134 341	1 001 553	1 260 942	1 123 794
TOTAL	398 331 546	33 398 049	38 581 581	36 495 962	33 184 068	38 069 901	36 324 310

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

Selected manufacturing subgroups	Actual values			Seasonally adjusted values		
	July	June	July 1/	July	June	July
	1999	2000		1999	2000	
Spinning, weaving and finishing of textiles	203 627	184 261	189 179	206 653	180 621	193 141
Tents, tarpaulins, sails and other canvas goods and automotive textile goods	21 797	28 803	28 068	24 332	30 261	31 231
Other textile articles	65 348	58 256	59 777	64 467	51 758	59 377
Knitted and crocheted fabrics and articles	140 251	144 334	141 093	148 151	152 422	149 571
Wearing apparel	719 553	662 833	675 971	751 231	704 381	703 704
Sawmilling and preserving of timber	20 227	24 884	23 124	20 312	25 222	23 272
Veneer sheets, plywood, laminboard, etc.	23 730	20 948	23 836	23 653	21 828	23 481
Builders' carpentry and joinery	63 579	41 423	32 370	58 859	39 538	29 757
Pulp, paper and paperboard	221 537	495 470	531 300	199 508	505 556	476 652
Corrugated paper and paper-board and containers	338 431	307 313	349 754	360 945	327 693	374 833
Paints, varnishes and coatings	15 805	14 449	10 852	22 211	20 164	15 264
Basic iron and steel products	2 607 151	2 903 703	3 099 080	2 690 501	2 976 326	3 208 743
Steel pipe and tube mills	131 530	173 325	214 445	136 455	193 537	223 837
Basic precious and non-ferrous metal products	982 835	1 253 165	1 181 145	1 034 281	1 157 127	1 246 200
Metal structures, parts	1 361 233	1 339 031	1 308 936	1 341 332	1 337 345	1 290 249
Cutlery, hand tools and general hardware	34 411	26 700	25 874	31 383	28 733	23 463
Metal containers, e.g. cans and tins	56 648	84 831	74 877	60 051	84 179	79 643
Cables, wire products, springs	71 638	64 732	58 166	68 875	61 887	55 613
Metal fasteners	32 830	54 165	36 332	34 159	56 289	37 866
All other metal products	651 646	532 534	558 704	586 661	520 200	504 085
Domestic appliances	47 074	22 073	21 874	44 906	21 286	20 744
Electric motors, generators and transformers	437 664	562 333	558 362	421 424	524 090	539 264
Insulated wire and cables	176 661	236 253	258 097	172 404	230 476	252 265
Accumulators, primary cells and primary batteries	12 040	13 851	12 773	11 780	12 803	12 729
Television, radio and communication apparatus	656 732	1 176 741	1 204 166	673 515	1 146 817	1 243 382
Motor vehicles	1 826 003	2 019 308	2 019 231	1 873 253	2 036 875	2 092 919
Parts and accessories for motor vehicles	316 863	310 248	308 332	290 735	282 498	282 719
Furniture	210 549	229 914	253 020	217 158	238 680	259 632

* Revised

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Additional information

Explanatory notes

Introduction

- 1 Statistics South Africa (Stats SA) conducts a monthly sample survey of the manufacturing industry covering private manufacturing establishments (branches), public corporations and government establishments. This statistical release contains detailed information regarding indices of the physical volume of manufacturing production, the total value of sales of manufactured products and unfilled orders, according to manufacturing divisions and major groups on a monthly basis.
- 2 In accordance to international practice, the indices have to be rebased every five years to a new base year. The indices in this statistical release have been calculated on the basis of 1995=100 since November 1997. Both actual and seasonally adjusted figures are presented.
- 3 In order to improve timeliness, some information for the current month June 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

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

Statistical unit

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

Survey methodology and

design

- 7 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.
- 8 The survey is collected by mail each month from a sample of approximately 2 700 manufacturing establishments.

- 9 The above-mentioned measurement method in paragraph 7 was followed in 40 of the various major groups. On account of certain considerations more appropriate indicators were used for the four remaining major groups namely "other transport equipment"; tobacco products and coke and refined petroleum products and bodies for motor vehicles. The volume indices for the major groups tobacco products and coke and refined petroleum products are calculated on the basis of physical quantities. The major group tobacco products is included under 'Other' manufacturing industries. This method is also 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). In the case of "other transport equipment" units such as ships and aircraft are completed over a relatively long period and establishments can often not report charges for work done continuously. The sales and charges for work done are only shown after completion of the product, which is not a true reflection of the real production for the month under consideration. Therefore the index for "other transport equipment" is calculated monthly according to man-hours worked.

Sample design

- 10 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

- 11 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.
- 12 The results of the 1991, 1993 and 1996 Censuses of Manufacturing and information obtained from the former TBVC states were used to adjust the level of the manufacturing production indices and the value of sales of manufactured products. The total value of output of the manufacturing major groups (which represents the total value of work done by the establishments in these major groups) as obtained from the manufacturing censuses, was deflated with appropriate sub-indices of the Production Price Index in order to calculate the real output. The latter served as benchmarks to verify or adjust the level of the monthly physical volume of manufacturing production indices. The level adjustments were done on the volume indices for January of the relevant census year (e.g. the 1996 census year covers the period 1 July 1995 to 30 June 1996 and therefore the benchmarking was done using the index of January 1996 as reference point). The motor vehicle major group is the only exception where the financial year for most of the establishments covered the period 1 January 1995 to 31 December 1995. The benchmarking was done using the physical volume of manufacturing production index for July 1995 as reference point.

Production index for the total manufacturing industry	<p>13 In order to calculate a production index for the total manufacturing industry, the production indices for the major groups are combined as follows:</p> <p>A weight is calculated for every major group according to the value added of the relevant major group compared with the value added to 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.</p>
Seasonal adjustment	<p>14 Seasonally adjusted estimates of all items 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 June 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 June not be reliable indicators of trend behaviour.</p>
Trend cycle	<p>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.</p>
Reliability of estimates	<p>16 Estimates are subject to sampling and non-sampling errors. Figures for the latest month are preliminary.</p>
Historical data	<p>17 More comprehensive detail on the method of calculation and historical data in respect of the production indices according to manufacturing major groups and the value of sales for the period January 1990 to September 1999 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.</p>
Related publications	<p>18 Users June also wish to refer to the following publications which are available from Stats SA -</p> <ul style="list-style-type: none"> • P3041.3 - Manufacturing statistics: Indices of the physical volume of manufacturing production, Base: 1995=100, January 1990 to September 1999. • P3041.4 - Manufacturing statistics: Value of sales (divisions, major groups and subgroups), January 1990 to September 1999. • Bulletin of Statistics. • SA Statistics.

Unpublished statistics **19** In some cases Stats SA can also make available statistics which are not published. The statistics can be made available as: computer printouts, diskette and CD. Generally a charge is made for providing unpublished statistics.

Rounding-off of figures **20** The figures in the tables have, where necessary, been rounded off to the nearest final digit shown. There June, therefore, be slight discrepancies between the sums of the constituent items and the totals shown.

Pre-release policy **21** 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.

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

Symbols and abbreviations **22** Stats SA Statistics South Africa
TBVC states Relates to the former Transkei, Bophuthatswana, Venda and Ciskei states
SIC Standard Industrial Classification of all Economic Activities
ISIC International Standard Classification of all Economic Activities
SNA System of National Accounts
PPI Production Price Index
GDP Gross Domestic Product
1/ Preliminary figures
* Revised figures

Technical notes

Response rates

See the response rates for July 2000, by manufacturing major divisions, in table B.

Table B - Response rates for July 2000

Manufacturing major divisions	% response
Food and food products	80,4
Beverages	90,3
Textile	91,4
Total wearing apparel	89,8
Tanning and dressing of leather	66,7
Footwear	73,9
Wood and products of wood	74,6
Paper and paper products	66,7
Total publishing and printing	60,9
Coke and refined petroleum products	72,7
Basic chemicals	88,6
Other chemical products	87,6
Rubber products	91,3
Plastic products	71,1
Glass and glass products	100,0
Other non-metallic mineral products	74,7
Basic iron and steel products	78,1
Basic precious and non-ferrous metal products	76,0
Fabricated metal products	81,9
Total machinery and equipment	78,7
Electrical machinery, apparatus	76,1
Radio, television and communication apparatus	65,2
Professional equipment	60,7
Motor vehicles; trailers; parts and accessories	81,8
Other transport equipment	80,0
Furniture	78,9
Other manufacturing industries	79,0
Total	79,4

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 1995. 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;
- closing value of work in progress, stocks of own manufactures and stocks of factored goods;
- head office charges; and
- other revenue.

Output excludes -

- excise and customs duty paid; and
- opening values of work in progress, finished goods and factored goods.

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.

FOR MORE INFORMATION

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

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