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MANUFACTURING PRODUCTION, AUSTRALIA

**HOUSEHOLD APPLIANCES
AND ELECTRICAL EQUIPMENT
APRIL 1992**

IAN CASTLES
Australian Statistician

AUSTRALIAN BUREAU OF STATISTICS

CATALOGUE NO. 8357.0

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CONTENTS

<i>Table</i>	<i>Page</i>
1. Clothes washing and drying machines	1
2. Refrigerators and freezers	1
3. Cooking stoves, ovens and ranges	2
4. Colour television sets	2
5. Electric kettles, fans and air conditioners	3
6. Water heaters	3
7. Space heaters and solar collectors	4
8. Lawn mowers	4
9. Electric and telephone cable, wire and strip	5
10. Electrical power transformers for transmission and distribution of power	5
11. Electric motors	6
12. Other electrical appliances and equipment	7
.. Explanatory Notes	8

INQUIRIES

- *for further information about statistics in this publication and the availability of related unpublished statistics, contact Vaughn Moore on Melbourne (03) 615 7635 or any ABS office.*
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TABLE 1. CLOTHES WASHING AND DRYING MACHINES
(number)

Period	Household or laundry type clothes washing machines			Clothes drying machines (c)
	Original (775.11)	Seasonally adjusted (a)	Trend (b)	
1988-89	396,535	..	..	n.a.
1989-90	330,451	..	..	226,985
1990-91	325,558	..	..	157,942
1991 —				
February	25,740	24,512	24,328	18,400
March	25,712	25,444	24,282	25,645
April	25,267	26,826	24,305	25,423
May	29,023	26,819	24,514	23,685
June	20,005	20,519	24,853	13,848
July	23,148	20,211	24,975	10,961
August	33,135	28,851	25,221	8,558
September	30,657	32,006	25,662	6,356
October	26,929	22,913	r 26,084	3,530
November	26,583	23,860	r 26,259	5,488
December	19,301	21,173	r 26,101	5,587
1992 —				
January	16,063	36,282	r 25,916	5,869
February	23,466	21,807	r 25,896	14,555
March	27,138	25,515	r 25,798	23,902
April	23,288	25,064	25,993	18,660
1990-91: July to Apr.	276,530	..	..	120,409
1991-92: July to Apr.	249,708	..	..	103,466

(a) See paragraph 5, Explanatory Notes. (b) See paragraph 6 to 9, Explanatory Notes. (c) Each of a dry linen capacity not exceeding 10 kg.

TABLE 2. REFRIGERATORS AND FREEZERS
(number)

Refrigerators-domestic							Freezers-domestic (upright and chest) (775.22)
Period	Twin door			Original	Total		
	Single door (775.23)	Frost free (775.24)	Other (775.25)		Seasonally adjusted(a)	Trend(b)	
1988-89	120,190	102,331	157,108	379,629	..	..	108,731
1989-90	105,488	84,697	156,173	346,358	..	..	98,699
1990-91	105,703	84,956	172,440	363,099	..	..	94,087
1991 —							
February	9,974	8,915	14,951	33,840	32,892	35,821	10,115
March	9,100	9,443	17,344	35,887	43,931	35,521	10,318
April	7,383	7,937	15,594	30,914	32,798	33,829	6,744
May	7,452	9,022	18,103	34,577	30,185	31,462	7,499
June	5,253	6,174	12,971	24,398	25,563	29,319	5,200
July	7,518	8,095	16,185	31,798	28,780	28,194	8,349
August	7,970	8,180	16,514	32,664	28,766	28,769	7,790
September	8,715	8,081	15,430	32,226	29,481	30,686	8,092
October	9,981	8,989	17,943	36,913	32,720	33,180	10,223
November	11,043	10,490	16,836	38,369	35,593	34,936	9,880
December	8,935	7,779	14,557	31,271	37,802	35,500	8,989
1992 —							
January	6,484	8,665	14,057	29,206	40,104	34,961	7,676
February	7,081	7,907	13,829	28,817	28,014	33,690	7,472
March	7,399	7,732	14,993	30,124	34,181	n.y.a.	6,349
April	5,162	6,278	13,526	24,966	26,635	n.y.a.	5,588
1990-91: July to Apr.	92,998	69,760	141,366	304,124	..	..	81,388
1991-92: July to Apr.	80,288	82,196	153,870	316,354	..	..	80,408

(a) See paragraph 5, Explanatory Notes. (b) See paragraph 6 to 9, Explanatory Notes.

TABLE 3. COOKING STOVES, OVENS AND RANGES
(number)

Period	Domestic types						Total
	Electric			Gas			
	Ranges(a) fixed and other (775.95)	Wall ovens (775.96)	Cooking tops (775.97)	Standard town (697.36)	LP and TLP (697.37)	Natural (697.38)	
1988-89	114,319	118,458	n.p.	n.a.	n.a.	n.a.	n.a.
1989-90	118,486	104,106	72,465	24,591	n.p.	67,310	n.p.
1990-91	102,733	90,335	58,888	24,220	23,569	60,080	107,869
1991 —							
February	8,620	8,189	5,671	1,714	2,116	4,615	8,445
March	8,911	8,484	5,107	1,688	1,872	4,339	7,899
April	8,940	7,568	5,478	2,028	1,860	5,212	9,100
May	10,600	8,313	6,177	1,970	2,262	5,104	9,336
June	8,131	8,284	5,420	2,981	2,280	7,169	12,430
July	10,669	9,144	6,465	3,669	2,587	8,508	14,764
August	10,687	7,357	5,044	3,694	2,761	8,890	15,345
September	10,585	8,485	5,564	3,027	2,230	n.p.	n.p.
October	9,995	9,553	6,286	1,497	6,905	n.p.	n.p.
November	9,071	9,835	7,084	1,480	2,784	n.p.	n.p.
December	6,728	8,675	3,165	2,957	2,000	n.p.	n.p.
1992 —							
January	3,271	4,416	2,117	783	1,267	n.p.	n.p.
February	9,382	8,536	5,977	3,518	3,139	n.p.	n.p.
March	9,535	10,539	6,290	4,069	3,187	9,246	16,502
April	8,444	8,349	6,052	4,147	1,784	n.p.	n.p.
1990-91: July to Apr.	84,002	73,738	47,291	19,269	19,027	47,807	86,103
1991-92: July to Apr.	88,367	84,889	54,044	28,841	28,644	n.p.	n.p.

(a) Having at least one hotplate and one oven separately heated. Total rating not exceeding 15kW.

TABLE 4. COLOUR TELEVISION SETS
(number)

Period	Less than				Total		Trend(b)
	48cm (761.11,12)	48cm but less than 53cm (761.13)	53cm but less than 62cm (761.14)	62cm and over (761.15,16)	Original	Seasonally adjusted(a)	
1988-89	n.p.	94,499	n.p.	57,703	162,398	..	..
1989-90	n.p.	86,449	5,429	n.p.	158,087	..	..
1990-91	—	102,326	650	64,198	167,174	..	..
1991 —							
February	—	9,467	—	4,259	13,726	13,889	14,618
March	—	10,196	—	4,323	14,519	14,182	14,500
April	—	8,806	—	4,402	13,298	14,832	14,258
May	—	12,900	—	4,598	17,498	14,796	14,102
June	—	9,357	—	3,843	13,200	14,041	14,136
July	—	8,030	—	5,170	13,200	12,048	14,349
August	—	10,031	—	7,796	17,827	14,404	14,526
September	—	9,513	—	7,443	16,956	17,064	14,491
October	—	11,116	—	7,187	18,303	14,966	14,353
November	—	n.p.	n.p.	7,048	16,092	13,613	14,227
December	—	n.p.	n.p.	5,724	11,685	13,397	14,201
1992 —							
January	—	n.p.	n.p.	1,769	4,186	11,966	14,372
February	—	n.p.	n.p.	7,684	15,749	15,968	14,793
March	—	n.p.	n.p.	6,419	18,425	17,894	15,283
April	—	n.p.	—	n.p.	13,539	14,779	15,866
1990-91: July to Apr.	—	80,069	650	55,757	136,476	..	..
1991-92: July to Apr.	—	n.p.	n.p.	n.p.	145,962	..	..

(a) See paragraph 5, Explanatory Notes. (b) See paragraph 6 to 9, Explanatory Notes.

TABLE 5. ELECTRIC KETTLES, FANS AND AIR CONDITIONERS
(number)

Period	Electric kettles (775.99)	Electric fans (743.42,44)	Air conditioning machines(a) other than self-contained window or wall type	
			Domestic (741.52)	Other (741.54)
1988-89	605,473	n.a.	n.a.	n.a.
1989-90	534,619	767,719	79,861	14,602
1990-91	575,810	489,877	83,113	10,825
1991 —				
February	50,064	47,373	7,785	933
March	26,105	45,295	9,005	921
April	47,416	38,933	9,369	855
May	34,295	45,250	7,614	852
June	14,051	28,138	1,191	792
July	46,706	35,408	5,590	758
August	48,046	42,528	7,301	708
September	54,414	43,419	6,433	725
October	73,428	38,995	8,189	712
November	53,665	43,854	9,143	835
December	48,923	39,383	6,648	713
1992 —				
January	21,566	25,556	2,262	502
February	34,290	45,047	3,134	700
March	34,833	43,921	4,013	797
April	29,247	40,258	4,584	633
1990-91: July to Apr.	527,464	416,489	74,308	9,181
1991-92: July to Apr.	445,118	398,369	57,297	7,083

(a) Comprises a motor driven fan and elements for changing the temperature and humidity. Excludes automotive types.

TABLE 6. WATER HEATERS(a)
(number)

Period	Electric				
	Storage and immersion				
	Instantaneous (775.75)	Full mains pressure (775.93)	Other (775.94)	Gas (741.76,81)	Solar(b) (741.77)
1988-89	n.a.	n.p.	n.a.	n.a.	35,203
1989-90	15,692	331,572	19,955	187,957	31,102
1990-91	11,964	263,862	25,316	176,728	26,308
1991 —					
February	604	23,033	1,698	14,812	2,140
March	994	22,119	2,134	14,853	1,601
April	880	19,371	2,759	14,321	1,868
May	1,245	23,975	3,762	16,751	2,545
June	1,167	20,795	1,772	15,144	1,827
July	1,469	24,966	3,056	16,357	1,842
August	672	27,777	4,433	17,297	1,904
September	727	25,614	4,299	16,208	2,153
October	636	28,426	7,704	16,503	2,702
November	902	27,145	7,610	17,027	2,485
December	771	26,224	9,930	12,083	2,277
1992 —					
January	n.p.	11,633	10,547	4,505	1,078
February	395	29,470	12,438	15,106	1,998
March	508	32,392	12,747	21,772	2,143
April	702	20,121	14,761	11,091	2,580
1990-91: July to Apr.	9,552	219,092	19,782	144,833	21,936
1991-92: July to Apr.	n.p.	253,768	87,525	147,949	21,162

(a) Both domestic and non-domestic. (b) Includes systems which also have a conventional backup energy source.

TABLE 7. SPACE HEATERS AND SOLAR COLLECTORS

Period	Electric space heating and soil heating apparatus(a) (775.82)	Non-electric domestic space heaters			Solar collectors(c) (775.52)
		Solid fuel space heaters (697.61)	Warm air furnaces(b) (697.63)	Gas fires and gas space heaters (697.62)	
1988-89	595 176	n.a.	26 932	64 121	154 136
1989-90	419 375	30 670	31 508	61 403	151 345
1990-91	562 903	26 835	n.p.	64 525	134 738
1991 —					sq.m
February	63 534	2 134	n.p.	4 308	12 597
March	99 872	3 777	2 070	7 595	10 125
April	98 185	5 022	2 578	7 617	9 931
May	86 093	5 126	3 733	10 335	12 683
June	56 496	5 550	n.p.	9 919	9 918
July	39 505	2 065	n.p.	7 595	8 406
August	16 590	400	n.p.	4 114	10 893
September	13 306	n.p.	n.p.	2 375	12 327
October	14 334	154	n.p.	2 870	16 681
November	11 887	106	n.p.	2 228	18 708
December	20 844	n.p.	n.p.	1 777	9 421
1992 —					
January	34 428	178	n.p.	n.p.	11 204
February	56 462	577	n.p.	4 270	11 770
March	69 560	2 857	n.p.	6 246	11 779
April	46 376	4 329	n.p.	5 435	12 051
1990-91: July to Apr.	420 314	16 159	n.p.	45 271	112 137
1991-92: July to Apr.	323 292	n.p.	n.p.	n.p.	123 240

(a) Excludes soil heating apparatus prior to July 1989. (b) Includes non-domestic gas fired warm air furnaces prior to July 1989.
 (c) For household or industrial water heating purposes (e.g. hot water systems, swimming pool heating). Production figures relate to effective area of aperture.

TABLE 8. LAWN MOWERS
(number)

Period	Lawn mowers with engine (undercut rotary petrol type) 2 stroke or 4 stroke type (721.33)		
	Original	Seasonally adjusted(a)	Trend(b)
1988-89	298,286	..	..
1989-90	246,688	..	..
1990-91	212,877	..	..
1991 —			
February	14,834	15,305	18,486
March	15,464	18,249	16,344
April	7,431	13,509	14,167
May	7,056	13,729	12,673
June	4,285	7,695	12,078
July	11,379	14,121	12,237
August	14,927	12,526	12,574
September	20,828	15,184	14,154
October	31,535	17,429	r 15,768
November	23,397	15,345	r 17,386
December	17,180	15,264	r 18,756
1992 —			
January	16,475	24,274	r 19,860
February	23,182	22,700	20,636
March	17,633	20,432	n.y.a.
April	10,702	18,367	n.y.a.
1990-91: July to Apr.	201,536	..	..
1991-92: July to Apr.	187,238	..	..

(a) See paragraph 5, Explanatory Notes. (b) See paragraph 6 to 9, Explanatory Notes.

TABLE 9. ELECTRIC AND TELEPHONE CABLE, WIRE AND STRIP
(tonnes)

Period	Uninsulated	Insulated			
	Stranded wire, cables cordage ropes, plaited bands, slings and the like, of aluminium (693.13)	Power transmission and distribution(a)			Other (e.g. for communications, electronics and appliances) (c) (773.33)
		Copper(b)			
		Paper insulated (773.19)	Otherwise insulated (773.31)	Other (773.32)	
1988-89	13,935	2,511	42,275	4,741	10,686
1989-90	7,951	2,613	45,580	6,013	12,680
1990-91	9,897	2,456	36,445	4,032	9,278
1991 —					
February	699	233	2,608	419	799
March	853	264	2,754	279	721
April	846	265	2,606	295	789
May	990	140	2,930	459	698
June	874	199	2,802	228	798
July	1,618	208	2,959	422	765
August	1,118	210	2,588	290	713
September	1,132	157	2,585	398	766
October	1,083	184	2,424	440	902
November	981	255	2,783	516	763
December	784	108	1,808	399	580
1992 —					
January	111	80	1,435	200	295
February	337	148	2,665	540	750
March	280	250	2,913	589	713
April	366	147	2,557	477	712
1990-91: July to Apr.	8,033	2,117	30,713	3,345	7,782
1991-92: July to Apr.	7,810	1,747	24,717	4,271	6,959

(a) Includes household and building wiring. Excludes co-axial cable and other co-axial conductors from July 1989. (b) Weight of copper content only. (c) Excludes automotive low voltage. Also excludes aluminium prior to July 1989 and winding wire, co-axial cable and other co-axial conductors from July 1989.

TABLE 10. ELECTRICAL POWER TRANSFORMERS FOR TRANSMISSION AND DISTRIBUTION
OF POWER(a)
(Total kVA capacity)

Period	Up to and including 63 kVA		Over 63 kVA up to and including 500 kVA	Over 500 kVA up to and including 1,000 kVA	Over 1,000 kVA up to and including 10,000 kVA	Over 10,000 kVA	Total
	Single phase (771.13)	Multi phase (771.15)	(771.17)	(771.19)	(771.32)	(771.34)	
	(771.13)	(771.15)	(771.17)	(771.19)	(771.32)	(771.34)	
1988-89	n.a.	n.a.	n.a.	708,846	1,082,081	2,607,803	6,128,367
1989-90	178,419	112,612	1,474,199	870,705	1,051,921	3,557,197	7,245,053
1990-91	168,467	147,221	1,334,339	787,795	1,164,613	2,700,762	6,303,197
1991 —							
February	14,299	12,812	114,914	39,300	139,054	80,000	400,379
March	14,141	13,520	87,871	68,200	147,654	440,500	771,886
April	13,617	16,203	67,930	42,900	50,554	64,000	255,204
May	11,512	18,423	79,042	69,550	76,408	121,000	375,935
June	11,071	11,638	79,946	62,090	70,554	670,000	905,299
July	9,131	9,425	108,555	73,194	140,404	110,000	450,709
August	11,383	10,899	91,240	59,500	89,658	293,000	555,680
September	9,633	14,144	82,066	60,020	127,918	55,000	348,781
October	12,247	10,031	110,301	82,750	81,438	696,000	992,761
November	10,020	10,477	100,372	45,640	78,408	865,000	1,109,877
December	7,852	7,423	80,400	39,800	99,158	105,000	339,633
1992 —							
January	5,597	5,599	46,879	24,360	24,700	160,000	267,135
February	9,840	11,823	75,597	54,470	79,608	108,000	339,338
March	9,703	9,476	83,624	39,020	168,752	742,000	1,052,575
April	9,107	5,699	81,716	31,950	78,008	25,000	231,480
1990-91: July to Apr.	14,784	117,160	1,175,351	656,155	1,017,651	1,909,762	5,021,963
1991-92: July to Apr.	14,513	94,996	860,750	510,664	968,052	3,159,000	5,687,975

(a) Includes those made for incorporation by manufacturers in own products. Includes chokes and ballasts, prior to July 1989. Dual rating transformers are classified according to the maximum capacity at which they can operate as constructed at the time of manufacture.

TABLE 11. ELECTRIC MOTORS (a)
(number)

Period	Single phase AC motors					
	DC motors and generators (b) (716.87,88,89,91)	Up to and including 37.5W (716.61)	Over 37.5W up to and including 190W (716.62,63)	Over 190W up to and including 380W (716.64,65)	Over 380W up to and including 746W (716.66,67)	Over 746W (716.68,69,70)
1989-90	1,281	369,270	958,364	327,577	357,470	n.p.
1990-91	1,464	n.p.	892,011	220,311	293,164	n.p.
1991 —						
February	36	53,717	73,415	15,237	21,892	n.p.
March	143	64,527	81,969	14,107	23,080	n.p.
April	198	64,630	75,240	12,986	16,260	n.p.
May	68	81,806	73,908	15,197	20,110	n.p.
June	34	n.p.	56,906	19,546	18,608	n.p.
July	115	n.p.	60,852	21,216	18,788	n.p.
August	199	n.p.	66,050	22,380	23,124	n.p.
September	79	n.p.	76,671	15,272	24,490	n.p.
October	98	n.p.	79,145	17,139	26,564	n.p.
November	84	n.p.	76,928	13,968	30,092	n.p.
December	60	n.p.	57,433	9,820	19,758	n.p.
1992 —						
January	24	n.p.	46,471	9,070	13,235	n.p.
February	60	n.p.	70,618	14,455	16,963	n.p.
March	131	n.p.	72,264	17,802	18,231	n.p.
April	53	n.p.	63,536	11,978	16,944	n.p.
1990-91: July to Apr.	1,362	498,097	761,197	185,568	254,446	n.p.
1991-92: July to Apr.	903	n.p.	669,968	153,100	208,189	n.p.

TABLE 11. ELECTRIC MOTORS (a)—continued
(number)

Period	Multiphase AC Motors						Total electric motors(c)	
	Up to and including 0.19kW (716.71)	Over 0.19kW up to and including 1.9kW (716.72,73)	Over 1.9kW up to and including 7.5kW (716.74,75)	Over 7.5kW up to and including 45kW (716.76,77)	Over 45kW (716.78, 79,81)	Over 45kW (716.78, 79,81)	Seasonally adjusted (d)	Trend (e)
1988-89	n.a.	n.a.	n.a.	n.a.	n.a.	3,076,305	..	..
1989-90	1,851	36,365	n.p.	6,825	n.p.	2,528,344	..	..
1990-91	n.p.	n.p.	9,637	2,769	n.p.	2,479,735	..	..
1991 —								
February	99	1,236	118	149	n.p.	198,088	200,182	217,493
March	315	1,418	283	126	n.p.	217,072	225,112	214,739
April	n.p.	966	107	103	n.p.	202,535	221,983	208,160
May	n.p.	n.p.	93	147	79	226,986	204,463	199,833
June	n.p.	n.p.	131	131	n.p.	169,851	172,215	192,708
July	n.p.	432	135	189	n.p.	201,070	187,856	188,589
August	n.p.	n.p.	n.p.	174	n.p.	201,497	178,111	189,952
September	n.p.	n.p.	129	106	72	229,292	213,743	r 196,193
October	n.p.	n.p.	155	142	n.p.	242,092	199,439	r 205,745
November	n.p.	n.p.	85	109	n.p.	237,341	214,281	r 213,880
December	n.p.	n.p.	57	68	n.p.	182,829	206,224	r 217,595
1992 —								
January	n.p.	n.p.	136	52	n.p.	147,723	280,845	r 217,416
February	n.p.	n.p.	142	97	n.p.	191,909	193,648	r 214,767
March	n.p.	n.p.	83	140	n.p.	r 218,881	r 214,237	r 210,431
April	n.p.	n.p.	109	105	37	169,686	192,378	206,470
1990-91: July to Apr.	n.p.	17,787	n.p.	2,491	n.p.	2,082,898	..	..
1991-92: July to Apr.	n.p.	n.p.	n.p.	1,182	n.p.	2,022,320	..	..

(a) Includes those made and incorporated in manufacturers own products. (b) Excludes those for aircraft, motor vehicles, off-highway trucks, materials handling trucks and tractors. (c) Also includes flameproof AC electric motors and universal ACDC motors (Australian Standard Commodity Classification Items 716.82, 83, 84, 85 and 86). (d) See paragraph 5, Explanatory Notes. (e) See paragraph 6 to 9, Explanatory Notes.

TABLE 12. OTHER ELECTRICAL APPLIANCES AND EQUIPMENT

Period	Phonograph records and cassette tapes			Audio cassette tapes pre-recorded (898.62)	Electrodes etc. for electric arc welding(a) (699.58)	Liquid supply or production meters, including calibration meters therefore (excluding reconditioned) (873.13)
	Conventional solid discs					
	45 r.p.m. (898.72)	33 r.p.m. (898.74)				
	'000	'000	'000	'000/kg	number	
1988-89	8,407	13,403	32,950	13,002	297,893	
1989-90	7,686	7,663	30,592	14,724	402,123	
1990-91	3,425	3,525	37,017	n.p.	r 321,974	
1989—						
June qtr	2,489	2,556	7,528	3,507	77,524	
September qtr	2,187	2,588	9,296	3,885	79,225	
December qtr	2,507	2,658	8,777	3,864	107,656	
1990—						
March qtr	1,644	1,272	6,169	3,641	108,000	
June qtr	1,349	1,146	6,350	3,333	107,242	
September qtr	1,394	1,344	9,617	3,846	87,852	
December qtr	1,008	1,174	11,417	3,370	69,272	
1991—						
March qtr	n.p.	n.p.	7,525	2,323	r 73,709	
June qtr	n.p.	n.p.	8,458	n.p.	91,141	
September qtr	n.p.	n.p.	10,189	n.p.	100,801	
December qtr	n.p.	n.p.	10,523	n.p.	95,357	
1992—						
March qtr	n.p.	n.p.	7,314	n.p.	102,875	
1990-91: July to Mar.	n.p.	n.p.	28,559	9,539	230,833	
1991-92: July to Mar.	n.p.	n.p.	28,026	n.p.	299,033	

(a) Includes only electrodes for manual welding up to June Quarter 1989.

EXPLANATORY NOTES

Introduction

This publication is one of a series of ten containing monthly and quarterly production statistics. The titles of the other publications of this series are shown in paragraph 10.

Classification

2. Data contained in these publications are mostly based on monthly or quarterly collections conducted by the Australian Bureau of Statistics (ABS). Most items are identified by the commodity codes used in the Australian Standard Commodity Classification (ASCC), which was developed by the ABS to facilitate greater comparability of manufacturing production commodity statistics with import and export commodity statistics.

Scope and coverage

3. Manufacturing commodity statistics collected by the ABS exclude details relating to single establishment manufacturing enterprises with fewer than four persons employed and production of establishments predominantly engaged in non-manufacturing activities but which may carry on, in a minor way, some manufacturing. However, except for a few commodities, the effect on production levels and movements is marginal.

4. Annual figures shown in this publication are derived by aggregating monthly/quarterly production and relate to production during the year ended 30 June. They may differ from annual manufacturing census data which relate to the census year and, in the case of businesses unable to report on a June year basis, include details in respect of substitute accounting periods.

Seasonal adjustment and trend estimates

5. This publication contains seasonally adjusted statistics of several items. In the seasonal adjustment, account has been taken not only of normal seasonal factors, but also, where appropriate, of 'working-day' effects (arising from the varying numbers of Sundays, Mondays, Tuesdays, etc. in the month) and the influence of Easter and Australia Day which may, in successive years, affect figures for different months. However, care should be exercised in interpreting the figures for those months in which Christmas/New Year and Easter holidays fall as some manufacturers vary holiday shutdowns in the light of prevailing demand for their products. Details of the methods used in seasonally adjusting these and other series are available on request.

6. The smoothing of seasonally adjusted series to create trend estimates is a means of reducing the impact of the irregular component of the series. The trend estimates have been derived by applying a 13-term Henderson weighted moving average to the seasonally adjusted series.

7. While this smoothing technique enables estimates of trend to be produced for the latest month, it does result in revisions to the estimates for the most recent months as data for subsequent months become available. Generally subsequent revisions become smaller and after 3 months have little impact on the series. There will also be revisions as a result of revisions to the original estimates and annual reviews of seasonal and 'working day' factors.

8. Because of the highly irregular nature of some production series it is not possible to discern with

reasonable confidence the current direction of the trend at the end of these series. For such highly irregular series the ABS does not provide the last two trend estimates.

9. Users may wish to refer to the ABS Information Papers *A Guide to Smoothing Time Series — Estimates of 'Trend' (1316.0)* and *Time Series Decomposition — An Overview (1317.0)* for more detailed information on smoothing of seasonally adjusted time series data.

Related publications

10. Other ABS publications which may be of interest are:

Manufacturing Production, Australia, Preliminary (8301.0) — issued monthly

Manufacturing Production, Australia, Clothing and Footwear (8358.0) — issued monthly

Manufacturing Production, Australia, Food, Drink, Tobacco, Stock and Poultry Food (8359.0) — issued monthly

Manufacturing Production, Australia, Fibres, Yarns, Fabrics, Bedding and Floor Coverings (8360.0) — issued monthly

Manufacturing Production, Australia, Building Materials and Fittings (8361.0) — issued monthly

Manufacturing Production, Australia, Plastics, Rubber, Paints, Detergents and Industrial Chemicals (8362.0) — issued monthly

Manufacturing Production, Australia, Transport Equipment (8363.0) — issued monthly

Manufacturing Production, Australia, Metal Products (8367.0) — issued monthly

Manufacturing Production, Australia, Energy Products (8368.0) — issued monthly

Manufacturing Production, Australia, Wood and Wood Products (8369.0) — issued monthly

Manufacturing Commodities : Selected Principal Articles Produced, Australia 1986-87, Preliminary (8365.0)

Manufacturing Commodities : Principal Articles Produced Australia 1986-87 (8303.0)

11. Current publications produced by the ABS are listed in the *Catalogue of Publications and Products, Australia (1101.0)*. The ABS also issues, on Tuesdays and Fridays, a *Publications Advice (1105.0)* which lists publications to be released in the next few days. The *Catalogue and Publications Advice* are available for any ABS office.

Symbols and other usages

- n.y.a. not yet available
- n.p. not available for separate publication (but included in totals where applicable)
- n.a. not available
- .. not applicable
- r revised since previous issue
- nil or rounded to zero
- break in continuity of series (where a line is shown between consecutive figures in the same column)



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