

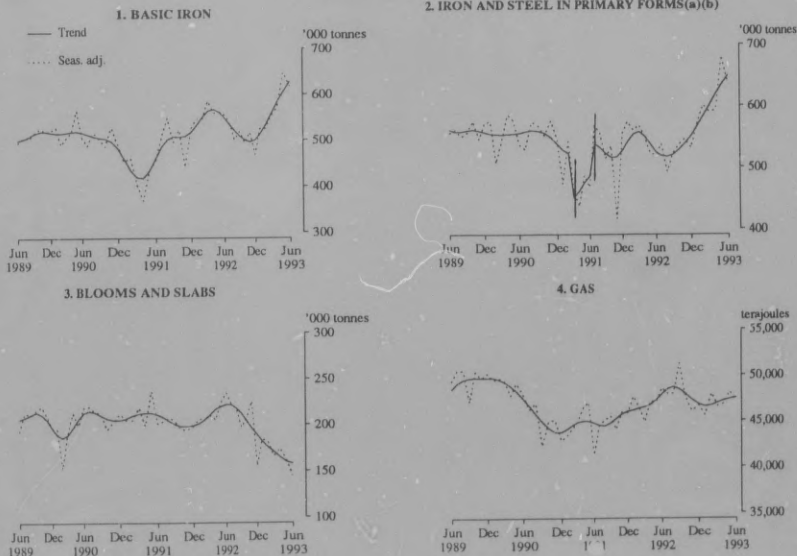
MANUFACTURING PRODUCTION, AUSTRALIA JUNE 1993, PRELIMINARY

NOTES

This publication presents preliminary monthly estimates for selected major indicators of manufacturing production for Australia. The statistics are collected from all the relevant manufacturing establishments other than single establishment manufacturing enterprises with fewer than four persons employed and are part of a much broader range of items published monthly and quarterly. For details of these see "Related publications", in the Explanatory Notes at the back of this publication.

IAN CASTLES
Australian Statistician

PRODUCTION STATISTICS, AUSTRALIA : TRENDS



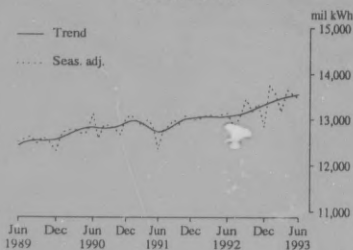
For footnotes see end of graph.

INQUIRIES

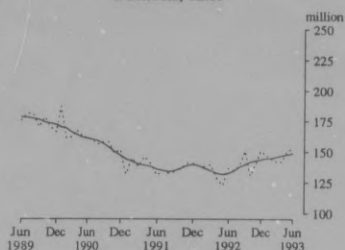
- * for further information about statistics in this publication and the availability of related unpublished statistics, contact Rod Smith on Melbourne (03) 615 7635 or any ABS office.
- * for information about other ABS statistics and services please refer to the back page of this publication.

PRODUCTION STATISTICS, AUSTRALIA : TRENDS

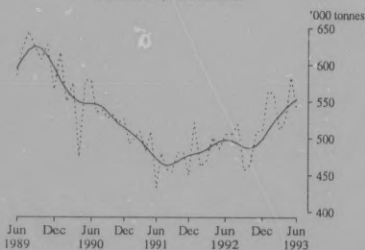
5. ELECTRICITY



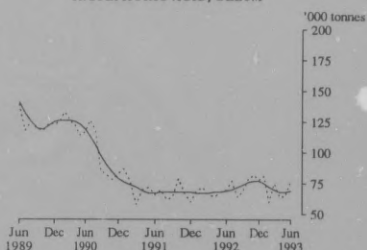
6. BRICKS, CLAY



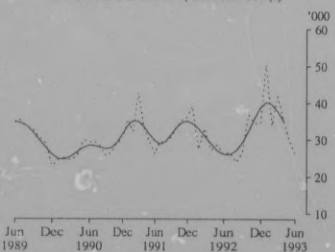
7. CEMENT, PORTLAND



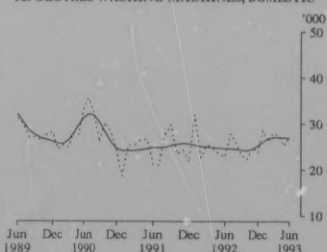
10. SULPHURIC ACID; OLEUM



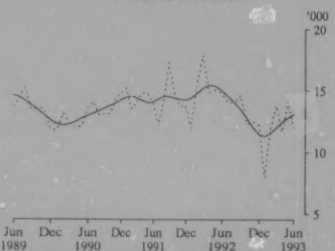
11. REFRIGERATORS, DOMESTIC(c)



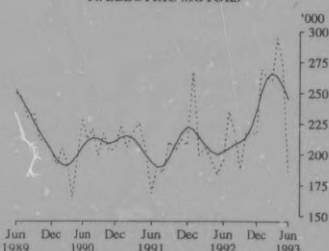
12. CLOTHES WASHING MACHINES, DOMESTIC



13. TELEVISION SETS

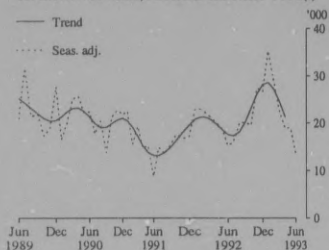


14. ELECTRIC MOTORS

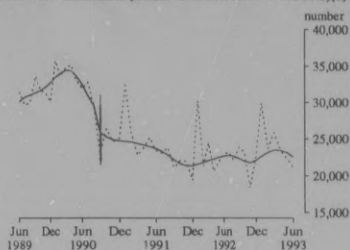


PRODUCTION STATISTICS, AUSTRALIA: TRENDS

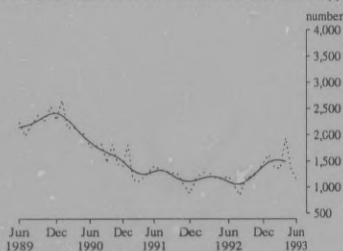
15. LAWN MOWERS, PETROL-ROTARY TYPE(c)



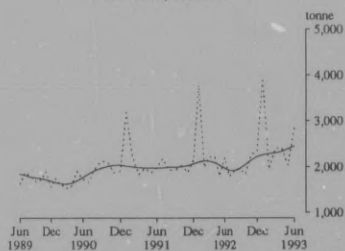
16. MOTOR VEHICLES (CARS AND STATION WAGONS)(d)



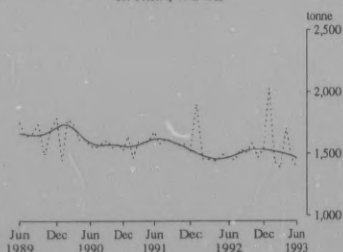
17. MOTOR VEHICLES FOR GOODS AND MATERIALS(e)



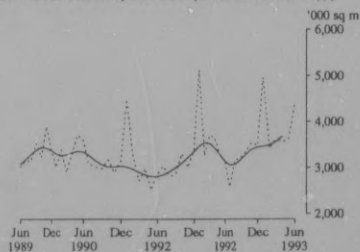
18. YARN, COTTON



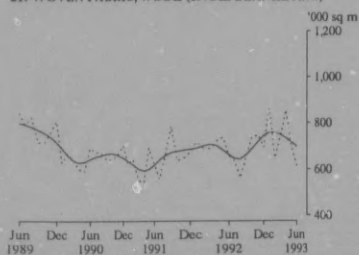
19. YARN, WOOL



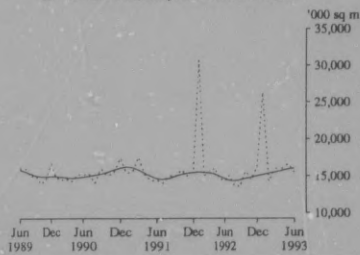
20. WOVEN FABRIC, COTTON (INCL TOWELLING)(c)



21. WOVEN FABRIC, WOOL (INCL. BLANKETING)

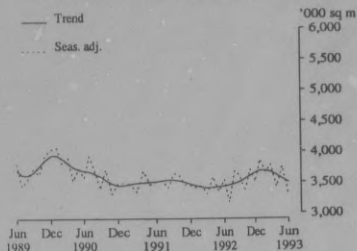


22. WOVEN FABRIC, MAN-MADE FIBRE

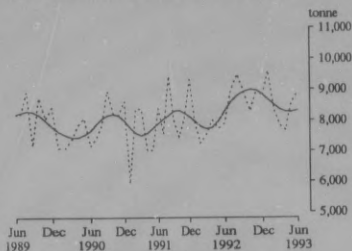


PRODUCTION STATISTICS, AUSTRALIA : TRENDS

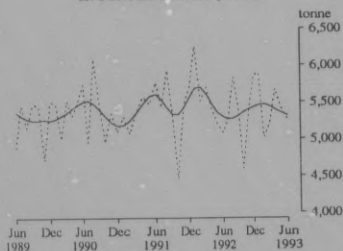
23. TEXTILE FLOOR COVERINGS



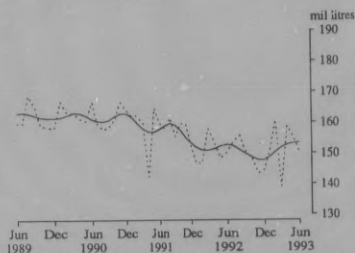
24. CONFECTIONERY, CHOCOLATE BASED



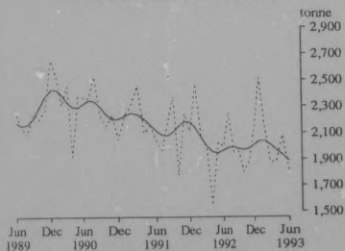
25. CONFECTIONERY, OTHER



26. BEER



27. TOBACCO AND CIGARETTES



(a) There is a drop in the level of the trend from March 1991 due to plant maintenance. (b) Break in series after July 1991. See footnote (a) on page 6. (c) Trend estimates are not available for the last two periods. (d) There is a lowering of the level of the trend series from September 1990 attributable to various factory shutdowns.

PRODUCTION STATISTICS, AUSTRALIA, JUNE 1993, PRELIMINARY

No. Item	Series	Unit	1992			1993					Percentage changes between:		
			Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	May 93 and June 93	June 92 and June 93
1. Basic iron, spiegeleisen and sponge iron	Orig. " "	'000 tonnes	532	533	500	531	466	526	550	587	568	-3.2	9.9
	S. adj. "	"	494	517	468	525	525	554	572	648	617	-4.7	11.2
	Trend r	"	500	497	500	513	534	558	583	606	628	3.5	14.3
2. Iron and steel in ingots or other primary forms(a)	Orig. " "	"	557	542	542	582	525	584	562	639	613	-4.1	22.1
	S. adj. "	"	536	546	530	569	601	589	594	681	636	-6.5	22.5
	Trend r	"	528	538	550	566	583	601	619	635	649	2.2	23.9
3. Blooms and slabs(b)	Orig. " "	"	222	207	160	179	161	174	171	150	143	-4.7	-38.1
	S. adj. "	"	208	226	156	184	182	166	174	162	145	-10.5	-38.3
	Trend r	"	204	196	189	182	176	171	165	160	158	-1.5	-29.1
4. Gas(c)	Orig. " "	terajoules	47,321	42,269	39,606	37,059	38,720	41,461	42,114	41,245	57,019	11.3	-2.0
	S. adj. "	"	47,526	46,024	46,694	45,555	47,947	46,569	46,866	48,173	47,071	-2.3	-3.1
	Trend r	"	47,918	47,299	46,790	46,569	46,656	46,948	47,196	47,380	47,483	0.2	-0.9
5. Electricity	Orig. " "	mil kWh	13,094	12,656	12,435	13,287	12,434	13,209	12,816	13,745	14,260	3.7	3.1
	S. adj. "	"	13,184	13,356	12,849	13,767	13,565	13,175	13,657	13,559	13,475	-0.6	2.4
	Trend r	"	13,220	13,276	13,332	13,383	13,430	13,479	13,512	13,531	13,555	0.2	3.7
6. Bricks, clay	Orig. " "	million	140	141	139	94	136	164	141	159	162	1.9	12.5
	S. adj. "	"	131	140	151	147	145	142	142	151	153	1.2	11.9
	Trend r	"	142	143	144	145	145	146	147	148	149	0.7	11.5
7. Cement, Portland	Orig. " "	'000 tonnes	519	552	498	404	510	536	508	605	546	-9.8	6.4
	S. adj. "	"	464	510	510	565	560	512	525	584	538	-7.8	6.3
	Trend r	"	487	491	499	511	523	532	541	548	554	1.2	11.2
8. Particle board and similar boards(d)	Orig. " "	'000 cu m	61	56	48	23	52	67	58	59	62	5.1	19.2
	S. adj. "	"	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
	Trend r	"	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
9. Plastics in primary forms(e)	Orig. " "	'000 tonnes	92.1	89.5	83.2	72.1	77.7	88.5	78.8	85.5	87.5	2.3	10.6
	S. adj. "	"	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
	Trend r	"	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
10. Sulphuric acid; oleum	Orig. " "	"	70	76	88	94	69	85	68	71	75	5.6	8.7
	S. adj. "	"	79	82	78	81	60	75	64	65	77	17.9	9.5
	Trend r	"	76	77	77	75	72	70	68	68	69	0.8	0.0
11. Refrigerators, domestic	Orig. " "	'000	39.1	38.2	32.1	34.7	34.7	40.3	31.5	31.9	26.5	-16.9	1.9
	S. adj. "	"	36.8	34.6	34.5	50.6	34.0	42.0	35.2	29.9	26.3	-12.2	1.2
	Trend r	"	32.5	35.9	38.9	40.2	39.6	37.7	35.1	(f)	(f)	n.a.	n.a.
12. Clothes washing machines, domestic	Orig. " "	"	24.2	25.9	22.8	14.0	25.2	31.0	25.7	25.1	27.4	9.0	24.3
	S. adj. "	"	22.4	24.9	23.8	28.6	26.1	27.9	27.4	25.3	27.3	7.8	19.1
	Trend r	"	24.2	24.5	25.2	26.1	26.8	27.0	27.1	27.0	26.9	-0.3	9.3
13. Television sets(g)	Orig. " "	"	15.2	13.8	11.1	2.6	11.9	14.8	11.0	14.3	12.2	-15.1	-16.2
	S. adj. "	"	12.3	12.5	12.2	8.0	12.0	13.8	11.7	14.1	12.0	-15.0	-18.9
	Trend r	"	12.8	12.0	11.5	11.3	11.6	12.0	12.5	12.8	13.1	2.2	-12.7
14. Electric motors	Orig. " "	"	249	231	203	139	253	288	261	262	209	-20.1	-0.6
	S. adj. "	"	218	217	216	270	263	260	295	272	186	-31.5	-4.5
	Trend r	"	214	222	235	251	262	266	263	256	245	-4.1	21.7

For footnotes see end of table

PRODUCTION STATISTICS, AUSTRALIA, JUNE 1993, PRELIMINARY

No. Item	Series	Unit	1992			1993					Percentage changes between		
			Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	May 93 and June 92	
												June 92 and June 93	
15. Lawn mowers petrol-rotary type	Orig. '000		34.2	38.3	32.3	r 24.1	29.4	r 20.7	10.5	9.1	7.2	-21.2	-7.5
	S. adj. "		19.6	27.4	26.7	r 35.3	28.8	r 22.4	19.0	19.0	13.6	-28.2	-10.6
	Trend r "		23.2	26.2	28.2	28.6	27.1	24.5	21.3	(f)	(f)	n.a.	n.a.
Motor vehicles—													
16. Cars and station wagons	Orig. number		26,089	20,099	19,668	10,191	23,159	27,597	21,016	25,000	23,868	-4.5	-6.4
	S. adj. "		23,148	18,402	22,571	29,898	23,704	25,876	23,465	22,331	21,161	-5.2	-7.5
	Trend r "		21,965	21,803	22,082	22,640	23,190	23,504	23,453	23,178	22,563	-2.7	-0.5
17. Vehicles for goods and materials(h)	Orig. "		1,417	1,270	1,213	636	1,343	1,554	1,700	1,538	1,339	-12.9	-1.8
	S. adj. "		1,192	1,292	1,471	1,628	1,379	1,356	1,948	1,360	1,154	-15.2	-5.4
	Trend r "		1,206	1,307	1,413	1,491	1,523	1,522	1,496	(f)	(f)	n.a.	n.a.
Yarn(i)—													
18. Cotton	Orig. tonne		2,265	2,199	1,941	1,361	2,009	2,441	2,334	2,202	3,109	41.2	33.6
	S. adj. "		1,850	2,280	2,341	3,940	1,957	2,405	2,414	2,039	2,850	39.7	29.4
	Trend r "		2,055	2,153	2,227	2,272	2,290	2,309	2,345	2,397	2,461	2.7	24.7
19. Wool	Orig. "		1,747	1,635	1,370	872	1,466	1,550	1,485	r 1,502	1,601	6.6	-1.6
	S. adj. "		1,589	1,472	1,550	2,029	1,431	1,386	1,711	r 1,465	1,388	-5.3	-7.5
	Trend r "		1,535	1,536	1,534	1,528	1,520	1,511	1,499	1,486	1,465	-1.4	-0.6
Woven fabric(i)—													
20. Cotton (incl. towelling)	Orig. '000 sq m		4,160	3,358	2,762	1,400	3,460	3,707	3,857	3,935	4,462	13.4	40.7
	S. adj. "		3,351	3,552	3,482	4,961	3,426	3,623	3,563	3,612	4,378	21.2	39.5
	Trend r "		3,296	3,404	3,454	3,468	3,496	3,569	3,679	(f)	(f)	n.a.	n.a.
21. Wool (incl. blanketing)	Orig. "		800	813	r 651	502	702	831	718	644	683	6.1	1.5
	S. adj. "		739	748	r 695	863	648	746	855	695	616	-11.2	-6.3
	Trend r "		690	720	746	760	759	749	735	717	697	-2.8	5.1
22. Man-made fibre	Orig. "		17,146	15,709	14,844	7,845	15,300	17,529	r 15,513	r 17,192	17,455	1.5	8.5
	S. adj. "		15,660	14,570	16,151	26,326	14,319	15,995	r 16,010	r 16,617	15,563	-6.3	8.6
	Trend r "		14,643	14,844	15,023	15,200	15,365	15,545	15,767	15,978	16,081	0.6	9.8
23. Textile floor coverings	Orig. "		3,800	4,034	3,460	2,144	3,452	3,838	3,121	r 3,891	3,483	-10.5	-6.5
	S. adj. "		3,350	3,708	3,507	3,865	3,666	3,788	3,424	r 3,759	3,306	-12.1	-6.9
	Trend r "		3,557	3,610	3,657	3,687	3,691	3,667	3,618	3,557	3,506	-1.4	1.9
Confectionery—													
24. Chocolate base	Orig. tonne		9,149	8,909	8,081	5,004	8,502	9,462	7,842	8,803	9,435	7.2	17.0
	S. adj. "		8,306	8,968	8,831	9,600	8,368	7,841	7,691	8,584	8,890	3.6	12.2
	Trend r "		8,998	8,968	8,838	8,670	8,512	8,370	8,285	8,272	8,222	0.6	0.1
25. Other	Orig. "		5,583	6,062	5,220	2,862	4,850	5,737	4,619	5,414	5,662	4.6	5.7
	S. adj. "		4,599	5,365	5,869	5,892	5,020	5,201	5,679	5,414	5,267	-2.7	3.5
	Trend r "		5,366	5,404	5,437	5,463	5,473	5,445	5,399	5,357	5,317	-0.7	0.3
26. Beer(j)	Orig. mil litres		168	176	188	139	143	150	154	137	129	-5.8	-1.2
	S. adj. "		149	144	145	151	161	139	159	155	150	-3.1	0.0
	Trend r "		149	148	148	149	151	152	153	153	153	0.1	0.4
27. Tobacco and cigarettes(k)	Orig. tonne		1,813	2,140	1,872	1,228	2,230	2,260	1,808	2,304	1,924	-16.5	-8.7
	S. adj. "		1,803	1,887	2,144	2,516	2,133	1,879	1,885	2,082	1,819	-12.6	-9.0
	Trend r "		1,974	1,982	2,013	2,039	2,040	2,012	1,972	1,993	1,891	-2.2	-4.0

(a) Includes ingots, puddled bars, piglets, blocks or lumps and steel in the molten state. There is a break in the three series as data after July 1991 excludes a small proportion of total production, due to the withdrawal of consent for the ABS to release the information. (b) From rolling and forging of iron and steel (primary mills output). (c) Available for issue through mains. Includes natural gas. (d) Particle boards and similar boards of wood or other lignaceous material. Includes boards for subsequent conversion to other purposes. Excludes laminated. (e) Includes liquid, paste, powder, granules, flakes, blocks, irregular shapes, lumps and similar forms. (f) See paragraph 9 of Explanatory Notes. (g) Excludes combination with radio etc. (h) Includes utilities, panel vans and prime movers for semi-trailers. (i) Includes mixtures predominantly of the fibre named. (j) Includes ale and stout. Excludes beverages with alcohol content of less than 1.15 per cent. (k) Source: Australian Tobacco Marketing Advisory Committee.

EXPLANATORY NOTES

Introduction

Preliminary estimates for June 1993 for certain major indicators of production are shown in the table on page 5. Production statistics for June 1993 for a more extensive range of commodities will be published later in the series of ten *Manufacturing Production Bulletins* (8357.0 to 8363.0 and 8367.0 to 8369.0).

Scope and coverage

2. Production statistics are not collected from single establishment manufacturing enterprises with fewer than four persons employed or from establishments predominantly engaged in non-manufacturing activities but which may carry out in a minor way some manufacturing. However, in general the contribution of these small producers to statistical aggregates is only marginal and data contained in this publication provide reliable information for the evaluation of movements in commodity production.

Comparability with other estimates

3. The ABS publishes quarterly estimates of constant price manufacturing production in the publication *Quarterly Indexes of Industrial Production, Australia* (8125.0). These estimates are shown as index numbers and are derived mainly from estimates of manufacturers' sales and stocks.

4. The production statistics published in the series of ten *Manufacturing Production Bulletins* (8357.0 to 8363.0 and 8367.0 to 8369.0) referred to in paragraph 1 account, in total, for less than half of the output of the manufacturing sector, so differences may occur between the general tendency (if there is one) in these items and changes in the quarterly indexes of industrial production. The comment applies with still greater force to the preliminary estimates for the major indicators of production shown in this publication.

Seasonally adjusted and trend estimates

5. Seasonally adjusted statistics are shown for all but two of the data items contained in this publication. 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. Details of the methods used in seasonally adjusting these series are available on request.

6. Seasonal adjustment procedures do not aim to remove the irregular or non-seasonal influences which may be present in any particular month, such as the effect of strikes, holiday shutdowns or other factors which vary with the prevailing demand for products. Irregular influences that are highly volatile can make it difficult to interpret the movement of the series even after seasonal adjustment.

7. 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.

8. 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.

9. 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.

10. 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

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

Manufacturing Production, Australia, Household Appliances and Electrical Equipment (8357.0) — 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

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